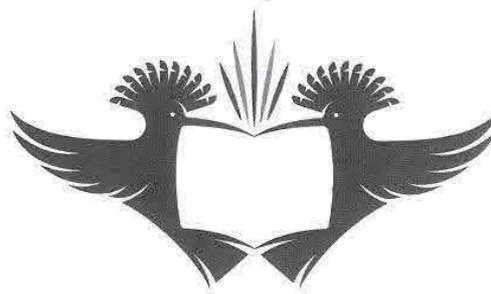


# Appendices

## **Appendix 1: Qualifications of the EAP**



UNIVERSITY  
OF  
JOHANNESBURG

The Council and the Senate of the  
UNIVERSITY OF JOHANNESBURG  
hereby certify that the degree

MAGISTER ARTIUM

with field of study

Environmental Management

with all its associated rights and privileges  
in accordance with the Statute of the  
University has been awarded to

ESTIE OCHSE

at a congregation of the University

Vice-Chancellor

Registrar

06 MARCH 2008  
Johannesburg  
ID 8004090112081

Certified a true copy  
of the original.

RAYMOND STEENSMA  
Commissioner of Oaths

Ref: 9/1/8/2 Roodepoort 21/9/05  
Manager: R N Steensmas Trading (Pty) Ltd  
t/as 3@1 Clearwater, Clearwater Mall  
Hendrik Potgieter Rd, Strubensvalley, 1735



23985



UNIVERSITY  
OF  
JOHANNESBURG

The Council and the Senate of the  
UNIVERSITY OF JOHANNESBURG  
hereby certify that the degree

MAGISTER ARTIUM

with field of study

Environmental Management

with all its associated rights and privileges  
in accordance with the Statute of the  
University has been awarded to

SELMA NEL

at a congregation of the University

Vice-Chancellor

Registrar

06 MARCH 2008  
Johannesburg  
ID 8010110014082



23984



# University of Pretoria

The Council and Senate hereby declare that  
at a congregation of the University the degree

## Master of Arts in Environment and Society

with all the associated rights and privileges was conferred on

### Thumo Neluvhalani

in terms of the Higher Education Act, 1997 and the  
Statute of the University

On behalf of the Council and Senate

Handwritten signature of C. de la Rey in black ink.

Vice-Chancellor and Principal

Handwritten signature of the Registrar in black ink.

Registrar



00057278



## **Appendix 2: Curriculum Vitae of EAP**

# Franciska Lake

## Partner



<b>Profession</b>	Environmental Scientist
<b>Education</b>	BSc (Hons), Zoology, University of Johannesburg, 2000
<b>Registrations/ Affiliations</b>	Pr Sci Nat (South Africa), 400248/05

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<b>Specialisation</b>	Water management; environmental management, environmental impact assessments and environmental management programmes
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<b>Expertise</b>	Franciska Lake has been involved in water management, environmental impact assessments and environmental management programmes for the last 18 years. Her expertise includes:
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- water management;
- water use licensing for mines and industry;
- general environmental management;
- environmental impact assessments;
- environmental site assessments;
- environmental management programmes;
- environmental assessments.

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## Employment

<b>2007 – present</b>	SRK Consulting (Pty) Ltd, Associate Partner and Consultant – Principal Environmental Scientist, Johannesburg
<b>2007 – 2007</b>	Self-employed, Environmental Scientist, South Africa
<b>2004 – 2006</b>	EA&MS, Environmental Scientist, South Africa
<b>2001 – 2004</b>	SRK Consulting (Pty) Ltd, Johannesburg Environmental Scientist

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<b>Languages</b>	English – read, write, speak Afrikaans – read, write, speak
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# Selma Nel

## Principal Scientist



<b>Profession</b>	Principal Scientist
<b>Education</b>	MA, Environmental Management, University of Johannesburg, South Africa, 2007 BA (Hons), Geography and Environmental Management, Rand Afrikaanse Universiteit, South Africa, 2004 BA, Geography and Environmental Management, Rand Afrikaanse Universiteit, South Africa, 2003
<b>Registrations/ Affiliations</b>	International Association of Impact Assessment SA

### Specialisation

Selma is a Principal Scientist with 12 years' experience in the environmental consultancy industry. She has experience in Environmental Impact Assessments throughout South Africa, compilation, implementation, amendment and assessing of Environmental Management Plans and Programmes in terms of the Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), the National Environmental Management Act, Act 107 of 1998 (NEMA) and the National Environmental Management: Waste Act (Act 29 of 2008) (NEM:WA).

Selma also manages bio-monitoring projects, which involve the assessment of river health through applying the South African Scoring System Version 5 (SASS5) & Invertebrate Habitat Assessment System (IHAS) methodologies. Selma is an accredited SASS Practitioner through the Department of Water and Sanitation since July 2009.

### Expertise

Selma Nel has been involved in the field of environmental management for the past 12 years. Her expertise includes:

- project coordination and management of integrated environmental impact assessments, environmental management programmes;
- compilation of technical environmental documents, programmes and reports;
- environmental pre-feasibility and feasibility assessment input;
- site selection assessment input;
- environmental compliance audits in terms of NEMA, MPRDA, NEM:WA and NWA;
- stakeholder engagement;
- vendor due diligence;
- bio-monitoring.

### Employment

<b>2010 – present</b>	SRK Consulting (Pty) Ltd, Principal Scientist, Water Department, Johannesburg
<b>2007 – 2010</b>	GCS Consulting, Environmental Scientist, Environmental Department, Rivonia
<b>2003 – 2007</b>	University of Johannesburg, Academy for Information Technology, Administration Assistant
<b>1999 – 2000</b>	ABSA (Rivonia), Client Services Administrator

### Languages

English – read, write, speak  
Afrikaans – read, write, speak

# Selma Nel

## Principal Scientist

### Key Experience: Project Management: Impact Assessment Projects

Location: Steelpoort, Limpopo  
 Project duration & year: July 2018  
 Client: Anglo American Platinum – Rustenburg Platinum Mines Limited: Der Brochen Mine  
 Name of Project: Der Brochen Amendment Project  
 Project Description: Integrated Environmental Authorisation process in terms of the proposed amendment to the Der Brochen Mine Project  
 Job Title and Duties: Principal Scientist - Project Manager & EAP

- Project coordination and management
- Technical review of project against current environmental related legislation
- Compilation of technical environmental documents, programmes and reports;
- Coordination and management of specialists
- Authority and Stakeholder consultation
- Client liaison

Value of Project: R 1 500 000

Location: Lebowakgomo, Limpopo  
 Project duration & year: April 2017  
 Client: Anglo American Platinum – Rustenburg Platinum Mines Limited: Rustenburg Section – Mogalakwena Mine  
 Name of Project: Research Crusher Plant Project  
 Project Description: Environmental Authorisation process in terms of a temporary research crusher plant project  
 Job Title and Duties: Senior Environmental Scientist - Project Manager & EAP

- Project coordination and management
- Technical review of project against current environmental related legislation
- Compilation of technical environmental documents, programmes and reports;
- Coordination and management of specialists
- Authority consultation
- Client liaison

Value of Project: R 250 000

Location: Mokopane, Limpopo Province  
 Project duration & year: March 2016, 6 months  
 Client: Anglo American Platinum – Rustenburg Platinum Mines Limited: Rustenburg Section – Mogalakwena Mine  
 Name of Project: Mogalakwena Mine: Environmental Authorisation Amendment  
 Project Description: Amendment of Mogalakwena Mine's approved Environmental Authorisation for the inclusion of an additional pebble storage area, through the undertaking of a NEMA EIA Regulation 29 amendment process  
 Job Title and Duties: Senior Environmental Scientist - Project Manager & EAP

- Project coordination and management
- Compilation of technical environmental documents, programmes and reports

Value of Project: R 135 000

Location: Mokopane, Limpopo Province

# Selma Nel

## Principal Scientist

<b>Key Experience:</b>	<b>Project Management: Impact Assessment Projects</b>
Project duration & year:	April 2016
Client:	Anglo American Platinum – Rustenburg Platinum Mines Limited: Rustenburg Section – Mogalakwena Mine
Name of Project:	Mogalakwena Mine: Environmental Authorisation Amendment
Project Description:	Amendment of Mogalakwena Mine’s approved Environmental Authorisation in respect of prospecting rights acquired, through the undertaking of a NEMA EIA Regulation 31 amendment process
Job Title and Duties:	Senior Environmental Scientist - Project Manager & EAP <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Compilation of technical environmental documents, programmes and reports</li> </ul>
Value of Project:	R 345 000
Location:	Mokopane, Limpopo Province
Project duration & year:	June 2015
Client:	Anglo American Platinum – Rustenburg Platinum Mines Limited: Rustenburg Section – Mogalakwena Mine
Name of Project:	Tailings Scavenger Plant
Project Description:	The authorisation of a new Tailings Scavenger Plant in terms of NEMA and MPRDA
Job Title and Duties:	Senior Environmental Scientist – Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Compilation of technical environmental documents, programmes and reports</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Client liaison</li> <li>• Authority consultation</li> </ul>
Value of Project:	R 270 000
Location:	Rustenburg, North West Province
Project duration & year:	June 2014
Client:	Anglo American Platinum – Rustenburg Platinum Mines: Rustenburg Section
Name of Project:	Domestic Waste Recycling Facility
Project Description:	The licensing of the new Domestic Waste Recycling Facility for the sorting and recycling of general waste in terms of NEM:WA
Job Title and Duties:	Senior Environmental Scientist – Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Compilation of technical environmental documents, programmes and reports</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 200 000
Location:	Mokopane, Limpopo Province
Project duration & year:	March 2014
Client:	Anglo American Platinum – Mogalakwena Platinum Mine
Name of Project:	Blinkwater Tailings Storage Facility Extension and Attenuation Dam
Project Description:	EMP Amendment to include the extension of the Blinkwater Tailings Storage Facility as well as the construction and operation of a new attenuation dam

# Selma Nel

## Principal Scientist

### Key Experience:

Job Title and Duties:

### Project Management: Impact Assessment Projects

Senior Environmental Scientist – Project Manager

- Project coordination and management of integrated environmental impact assessment
- Coordination and management of multi-disciplinary specialists
- Coordinate public participation activities
- Compilation of technical environmental documents, programmes and reports
- Authority consultation
- Client liaison

Value of Project:

R 4 150 000

Location:

Mokopane, Limpopo Province

Project duration & year:

January 2014

Client:

Anglo American Platinum – Mogalakwena Platinum Mine

Name of Project:

Environmental Impact Assessment for the infill drilling operation on the farms Drenthe and Witrivier including a waste rock dump on the farm Witrivier

Project Description:

Section 102 Application and EMPr Amendment to include the farms Drenthe and Witrivier into the Mining Right as well as the construction and operation of a new waste rock dump

Job Title and Duties:

Senior Environmental Scientist – Project Manager

- Project coordination and management of integrated environmental impact assessment
- Coordination and management of multi-disciplinary specialists
- Coordinate public participation activities
- Compilation of technical environmental documents, programmes and reports
- Authority consultation
- Client liaison

Value of Project:

R 3 900 000

Location:

Mokopane, Limpopo Province

Project duration & year:

October 2013

Client:

Anglo American Platinum – Mogalakwena Platinum Mine

Name of Project:

Mogalakwena Platinum Mine's Environmental Management Programmes (EMPrs) Consolidation and Alignment

Project Description:

Consolidation and alignment of the Mogalakwena Platinum Mine's EMPrs

Job Title and Duties:

Senior Environmental Scientist – Project Manager

- Project coordination and management
- Environmental compliance audit in terms of NEMA, MPRDA, NEM:WA and NWA
- Compilation of technical environmental documents, programmes and reports;
- Authority consultation
- Client liaison

Value of Project:

R 4 200 000

Location:

Rustenburg, North West Province

Project duration & year:

May 2013

Client:

Anglo American Platinum – Rustenburg Platinum Mine: Kwezi & K6 Operations

# Selma Nel

## Principal Scientist

<b>Key Experience:</b>	<b>Project Management: Impact Assessment Projects</b>
Name of Project:	Addendum to Anglo American Platinum's Rustenburg Platinum Mine's EMP – to include additional ventilation shafts at the Kwezi and K6 Shaft Operations
Project Description:	Addendum to the Rustenburg Platinum Mine's EMP to include the construction and operation of additional ventilation shafts at the Kwezi and K6 Shaft Operations
Job Title and Duties:	Senior Environmental Scientist – Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Compilation of technical environmental documents, programmes and reports;</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 175 000
Location:	Hattingspruit, KwaZulu Natal
Project duration & year:	October 2009
Client:	Shanduka Coal
Name of Project:	Springlake Colliery
Project Description:	Environmental Risk Assessment
Job Title and Duties:	Environmental Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Compilation of technical environmental documents, programmes and reports;</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 350 000
Location:	Hattingspruit, KwaZulu Natal
Project duration & year:	October 2009
Client:	Shanduka Coal
Name of Project:	Springlake Colliery
Project Description:	Environmental Impact Assessment and Environmental Management Programme for additional conveyors and ventilation shafts
Job Title and Duties:	Environmental Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management of integrated environmental impact assessments</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Compilation of technical environmental documents, programmes and reports</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 980 000
Location:	Black Rock, Northern Cape
Project duration & year:	April 2009
Client:	Eskom & Assmang Limited: Black Rock Mine
Name of Project:	Construction of a 132kV Power line for the Black Rock Mine

# Selma Nel

## Principal Scientist

<b>Key Experience:</b>	<b>Project Management: Impact Assessment Projects</b>
Project Description:	Environmental Impact Assessment and Environmental Management Programme for the construction of a 132kV Power line for the Black Rock Mine
Job Title and Duties:	Environmental Scientist - Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Site selection assessment input</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Compilation of technical environmental documents, programmes and reports;</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 1 200 000
Location:	Kendal, Mpumalanga
Project duration & year:	February 2009
Client:	Shanduka Coal
Name of Project:	Lakeside and Leeuwfontein Colliery
Project Description:	Environmental Impact Assessment and Environmental Management Programme for new opencast mining operations at Lakeside and Leeuwfontein Colliery
Job Title and Duties:	Environmental Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Compilation of technical environmental documents, programmes and reports;</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 1 200 000
Location:	Middelburg, Mpumalanga
Project duration & year:	February 2009
Client:	Shanduka Coal
Name of Project:	Middelburg Townlands Colliery
Project Description:	Environmental Impact Assessment and Environmental Management Programme for new opencast mining operation at Middelburg Townlands Colliery
Job Title and Duties:	Environmental Project Manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Compilation of technical environmental documents, programmes and reports;</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 1 500 000
Location:	Middelburg, Mpumalanga
Project duration & year:	March 2008
Client:	Londani Coal
Name of Project:	Ndanganeni Colliery

# Selma Nel

## Principal Scientist

### Key Experience:

Project Description:

Job Title and Duties:

Value of Project:

Location:

Project duration & year:

Client:

Name of Project:

Project Description:

Job Title and Duties:

Value of Project:

### Project Management: Impact Assessment Projects

Environmental Impact Assessment and Environmental Management Programme for the new Nndanganeni Colliery

Environmental Scientist - Project Manager

- Project coordination and management
- Coordination and management of multi-disciplinary specialists
- Coordinate and facilitate public participation activities
- Compilation of technical environmental documents, programmes and reports;
- Authority consultation
- Client liaison

R 1 200 000

Delmas, Mpumalanga

November 2007

Umthombo Resources

Schoongezicht Colliery

Environmental Impact Assessment and Environmental Management Programme for the new Schoongezicht Colliery

Environmental Scientist - Project Manager

- Project coordination and management
- Compilation of technical environmental documents, programmes and reports;
- Coordination and management of multi-disciplinary specialists
- Coordinate and facilitate public participation activities
- Authority consultation
- Client liaison

R 950 000

### Key Experience:

### Project Coordinator: Impact Assessment Projects

Location:

Project duration & year:

Client:

Name of Project:

Project Description:

Job Title and Duties:

Value of Project:

Kriel, Mpumalanga

March 2013

Eskom

Kriel and Matla Power Stations Integrated Water and Waste Management Programmes

Compilation of Kriel and Matla Power Stations Integrated Water and Waste Management Programmes in accordance with the National Water Act, Act 36 of 1998, requirements.

Environmental Scientist – Project Coordinator and Assisting Project Manager

- Environmental and Water Site Assessor and Advisor
- Compilation of technical programmes
- Client liaison

R 380 000

Location:

Project duration & year:

Client:

Name of Project:

Marikana, North West

January 2011

Aquarius Platinum South Africa

Environmental Authorisation for the Marikana Open Pit Rehabilitation and Surface Tailings Storage Facility

# Selma Nel

## Principal Scientist

<b>Key Experience:</b>	<b>Project Coordinator: Impact Assessment Projects</b>
Project Description:	Environmental Impact Assessment and Environmental Management Programme for the Marikana Open Pit Rehabilitation and Surface Tailings Storage Facility
Job Title and Duties:	Environmental Scientist – assisting project manager <ul style="list-style-type: none"> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Site selection assessment input</li> <li>• Coordinate and facilitate public participation activities</li> <li>• Compilation of technical environmental documents, programmes and reports</li> <li>• Authority consultation</li> <li>• Client liaison</li> </ul>
Value of Project:	R 5 000 000
Location:	Mafikeng, Limpopo
Project duration & year:	June 2008
Client:	Bigen Africa
Name of Project:	Maandagshoek Road Upgrade
Project Description:	Environmental Impact Assessment and Environmental Management Programme for the Maandagshoek Road Upgrade
Job Title and Duties:	Environmental Scientist – assisting project manager <ul style="list-style-type: none"> <li>• Project coordination and management</li> <li>• Authority consultation</li> <li>• Client liaison</li> <li>• Compilation of technical environmental documents, programmes and reports</li> </ul>
Value of Project:	R 350 000
Location:	Mokopane, Limpopo
Project duration & year:	February 2008
Client:	Londmin Akanani Platinum Mine
Name of Project:	Lonmin Akanani Platinum Mine – Mine Facilities Site Selection
Project Description:	Site Selection for Mine Facilities
Job Title and Duties:	Environmental Scientist <ul style="list-style-type: none"> <li>• Coordination and management of multi-disciplinary specialists</li> <li>• Site selection assessment</li> <li>• Compilation of technical environmental documents, programmes and reports</li> <li>• Client liaison</li> </ul>
Value of Project:	R 280 000

<b>Key Experience:</b>	<b>Environmental Advisory Projects</b>
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Location:	Lebowakgomo, Limpopo
Project duration & year:	January 2018, 3 months
Client:	DRA Global
Name of Project:	Baobab Mine Pilot Crusher Plant Environmental Protection and Response Plan
Project Description:	Development of the construction phase's Environmental Protection and Response Plan in respect of Baobab Mine Pilot Crusher Plant
Job Title and Duties:	Senior Environmental Scientist – Project Manager <ul style="list-style-type: none"> <li>• Compilation of an Environmental Protection and Response Plan</li> </ul>

# Selma Nel

## Principal Scientist

### Key Experience: Environmental Advisory Projects

Value of Project:	R 380 000
Location:	Steelpoort, Limpopo
Project duration & year:	2016-2017
Client:	Anglo American Platinum: Der Brochen Mine
Name of Project:	Execution of the approved Der Brochen Project EMPr
Project Description:	Providing environmental advice in terms of the execution of the approved Der Brochen Project EMPr, with specific reference to the tailings storage facility
Job Title and Duties:	Environmental Advisor and Environmental Control Officer <ul style="list-style-type: none"> <li>• Compilation of environmental and social execution procedures</li> <li>• Conducting site inspections and environmental audits against EMPr</li> </ul>
Value of Project:	n/a
Location:	Mokopane, Limpopo
Project duration & year:	2016-2017
Client:	Anglo American Platinum – Mogalakwena Platinum Mine
Name of Project:	Blinkwater Tailings Storage Facility Expansion
Project Description:	Pre-feasibility assessment of the proposed Blinkwater Tailings Storage Facility Expansion Project
Job Title and Duties:	Senior Environmental Scientist – Environmental Advisor <ul style="list-style-type: none"> <li>• Technical review of project against current environmental related legislation</li> <li>• Compilation of technical environmental documents</li> </ul>
Value of Project:	n/a
Location:	Johannesburg, Gauteng
Project duration & year:	October 2016
Client:	Amalgamated Beverage Industries
Name of Project:	Community Water Initiatives towards the aid of the Water Crisis
Project Description:	Identify and develop implementation plan for community water initiatives in aid of the water crisis
Job Title and Duties:	Senior Environmental Scientist – Environmental Advisor <ul style="list-style-type: none"> <li>• Identify and develop community initiatives implementation plan</li> <li>• Trade off study inputs</li> <li>• Compilation of technical environmental documents</li> <li>• Client liaison</li> </ul>
Value of Project:	n/a
Location:	Richards Bay, KwaZulu Natal Province
Project duration & year:	August 2015
Client:	Elegant Line Chemicals (Pty) Ltd
Name of Project:	Pre-feasibility assessment of a proposed Chlor-alkali Plant
Project Description:	Chlor-alkali Plant Pre-feasibility Study and guidelines for preparation of Feasibility Study
Job Title and Duties:	Senior Environmental Scientist – Environmental Advisor <ul style="list-style-type: none"> <li>• Technical review of project against current environmental related legislation</li> <li>• Compilation of technical environmental documents</li> </ul>
Value of Project:	n/a

# Selma Nel

## Principal Scientist

### Key Experience: Audits, ECO and Due Diligence Projects

- Location: Steelpoort, Limpopo  
 Project duration & year: June 2017 - Current  
 Client: Anglo American Platinum – Der Brochen Project  
 Name of Project: Mareesburg Tailings Storage Facility  
 Project Description: Execution of the Mareesburg Tailings Storage Facility  
 Job Title and Duties: Senior Environmental Scientist
- Environmental Control Officer during construction phase
- Value of Project: R 280 000
- Location: Mokopane, Limpopo  
 Project duration & year: July 2014, Sept 2015, Nov 2016, Oct 2017 & Nov 2018  
 Client: Anglo American Platinum – Mogalakwena Mine  
 Name of Project: Annual External Performance Assessment on Mogalakwena Mine's EMPr's  
 Project Description: External EMPr Performance and Compliance assessment of Mogalakwena Mine  
 Job Title and Duties: Senior Environmental Scientist - Lead Auditor
- Project coordination and management
  - Environmental compliance audit in terms of NEMA, MPRDA and NEM:WA
  - Training and mentoring
- Value of Project: R 200 000
- Location: Middelburg, Mpumalanga  
 Project duration & year: May 2016  
 Client: Clewer Sand and Stone Quarry  
 Name of Project: EMPr Compliance Audit of Clewer Sand and Stone Quarry  
 Project Description: EMPr Compliance Audit of Clewer Sand and Stone Quarry as part of the quarry's mining right renewal process  
 Job Title and Duties: Environmental Scientist – Lead Auditor
- Compliance audit in terms of the NWA
  - Compilation of report on audit findings
- Value of Project: R 128 000
- Location: Phalaborwa, Limpopo  
 Project duration & year: May 2012  
 Client: Rio Tinto  
 Name of Project: Palabora Mining Company - Water Use License Compliance Audit  
 Project Description: Water Use License Compliance Audit  
 Job Title and Duties: Environmental Scientist – Assisting Auditor
- Project coordination and management
  - Environmental compliance audit in terms of MPRDA
  - Compilation of report on audit findings
- Value of Project: R 128 000
- Location: Rustenburg, North West  
 Project duration & year: February 2012  
 Client: Royal Bafokeng Platinum  
 Name of Project: Styldrift & Frischgewaagd Mines - Prospecting EMPs Compliance Audit  
 Project Description: External Prospecting Right EMPs Compliance Audit  
 Job Title and Duties: Environmental Scientist - Lead Auditor
- Project coordination and management

# Selma Nel

## Principal Scientist

### Key Experience: Audits, ECO and Due Diligence Projects

- Environmental compliance audit in terms of MPRDA
- Training and mentoring

Value of Project: R 280 000

Location: Kroondal, North West

Project duration & year: October 2011

Client: Aquarius Platinum South Africa

Name of Project: Kroondal and K5 Water Use License Audit

Project Description: Water Use License Compliance Audit

Job Title and Duties: Environmental Scientist - Assisting Auditor

- Compliance audit in terms of the NWA
- Compilation of report on audit findings

Value of Project: R 400 000

Location: Roosenekal, Mpumalanga Province

Project duration & year: July 2011

Client: Aquarius Platinum South Africa

Name of Project: Walhalla and Chieftains Plain –Prospecting EMPr audit and consolidation under MPRDA

Project Description: Amendment of Prospecting EMP under MPRDA

Job Title and Duties: Environmental Scientist – Project Coordinator

- Project coordination and management
- Environmental compliance audit in terms of MPRDA
- Compilation of technical environmental documents, programmes and reports;
- Coordinate and facilitate public participation activities
- Client liaison

Value of Project: R 350 000

Location: Lydenburg & Delmas (Mpumalanga) & Bronkhortspruit (Gauteng)

Project duration & year: November 2010

Client: Aquarius Platinum South Africa

Name of Project: AQPSA Prospecting EMPs Compliance Audit

Project Description: External Prospecting Right EMPs Compliance Audit

Job Title and Duties: Environmental Scientist - Auditor

- Project coordination and management
- Environmental compliance audit in terms of MPRDA
- Compilation of report on audit findings

Value of Project: R 400 000

Location: Cairo, Egypt, Africa

Project duration & year: February 2010

Client: Cadbury Africa

Name of Project: Cadbury Africa: Health, Safety and Environmental Audit

Project Description: Health, Safety and Environmental Audit

Job Title and Duties: Environmental Scientist – Assisting Auditor

- Compliance audit in terms company procedures, international standards and relevant legislation
- Compilation of report on audit findings

Value of Project: R 600 000

Location: Tanzania, Africa

# Selma Nel

## Principal Scientist

### Key Experience: Audits, ECO and Due Diligence Projects

Project duration & year: January 2010  
 Client: RSK  
 Name of Project: ETANA BP Environmental Site Assessment and Vendor Due Diligence  
 Project Description: Environmental Site Assessment and Vendor Due Diligence  
 Job Title and Duties: Environmental Scientist

- Project coordination and management
- Compilation of technical environmental documents and reports;
- Client liaison

Value of Project: R 3 800 000

### Key Experience: Bio-monitoring Projects

Location: Steelpoort, Mpumalanga  
 Project duration & year: Since July 2017  
 Client: Anglo American Platinum: Twickenham Mine  
 Name of Project: Twickenham Mine: Bio-monitoring and Toxicity monitoring programme  
 Project Description: Biannual Bio-monitoring and toxicity sampling in and around the Twickenham Mine Complex (Motse & Moopetsi Rivers)  
 Job Title and Duties: SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring
  - Conducting aquatic invertebrate and habitat assessment surveys
  - Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project: R 120 000

Location: Witriver, Mpumalanga  
 Project duration & year: Since February 2013  
 Client: Sonae Novoboard  
 Name of Project: Sonae Novoboard: Bio-monitoring  
 Project Description: Biannual Bio-monitoring (Tributary of the Sand River)  
 Job Title and Duties: SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring
  - Conducting aquatic invertebrate and habitat assessment surveys
  - Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project: R 120 000

Location: Steelpoort, Limpopo  
 Project duration & year: Since July 2011  
 Client: Impala Platinum's Marula Mine  
 Name of Project: Marula Platinum Mine's: Bio-monitoring  
 Project Description: Biannual Bio-monitoring (Moopetse & Tshwenyane Rivers)  
 Job Title and Duties: SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring

# Selma Nel

## Principal Scientist

### Key Experience:

#### Bio-monitoring Projects

- Conducting aquatic invertebrate and habitat assessment surveys
- Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project:

R 140 000

Location:

Bethal, Mpumalanga

Project duration & year:

June 2009 till Oct 2010

Client:

Total Coal

Name of Project:

Total Coal Springbok Siding: Bio-monitoring

Project Description:

Biannual Bio-monitoring (Tributaries of the Olifants River)

Job Title and Duties:

SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring
  - Conducting aquatic invertebrate and habitat assessment surveys
  - Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project:

R 62 000

Location:

Bethal, Mpumalanga

Project duration & year:

June 2009 till Oct 2010

Client:

Total Coal

Name of Project:

Total Coal Forzando Coal Mine: Olifants River Bio-monitoring

Project Description:

Biannual Bio-monitoring (Olifants River and tributaries)

Job Title and Duties:

SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring
  - Conducting aquatic invertebrate and habitat assessment surveys
  - Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project:

R 62 000

Location:

Kriel, Mpumalanga

Project duration & year:

June 2009 till Oct 2010

Client:

Total Coal

Name of Project:

Total Coal Dorstfontein East Coal Mine: Olifants River Bio-monitoring

Project Description:

Biannual Bio-monitoring

Job Title and Duties:

SASS Practitioner – Project manager

- Project coordination and management
- Bio-monitoring
  - Training and mentoring
  - Conducting aquatic invertebrate and habitat assessment surveys
  - Conducting aquatic invertebrate, habitat assessment and toxicity surveys
- Compilation of report on findings

Value of Project:

R 62 000

Location:

Mtubatuba, Kwa-Zulu Natal

# Selma Nel

## Principal Scientist

### Key Experience: Bio-monitoring Projects

Project duration & year:	December 2009
Client:	Tendele Coal
Name of Project:	Teldele Somkele Mine: Bio-monitoring - Umfolozi, Kwaluhlanga and Nkolokotho Rivers.
Project Description:	Biannual Bio-monitoring
Job Title and Duties:	SASS Practitioner – Project manager <ul style="list-style-type: none"><li>• Project coordination and management</li><li>• Bio-monitoring<ul style="list-style-type: none"><li>○ Conducting aquatic invertebrate and habitat assessment surveys</li><li>○ Conducting aquatic invertebrate, habitat assessment and toxicity surveys</li></ul></li><li>• Compilation of report on findings</li></ul>
Value of Project:	R 52 000
Location:	Pilgrims Rest, Limpopo
Project duration & year:	February 2009
Client:	Assmang
Name of Project:	Assmang Dwars River Chrome Mine: Groot Dwars River Bio-monitoring
Project Description:	Summer Survey Bio-monitoring Blyde River
Job Title and Duties:	SASS Practitioner Specialist <ul style="list-style-type: none"><li>• Project coordination and management</li><li>• Bio-monitoring<ul style="list-style-type: none"><li>○ Conducting aquatic invertebrate and habitat assessment surveys</li><li>○ Conducting aquatic invertebrate, habitat assessment and toxicity surveys</li></ul></li><li>• Compilation of report on findings</li></ul>
Value of Project:	R 20 000

# Estie Retief

## Environmental Scientist



<b>Profession</b>	Environmental Scientist
<b>Education</b>	M.A Environmental Management, University of Johannesburg, 2008 BA (Hons), Geography, University of Johannesburg, 2005 BA, Geography and Environmental Management, Rand Afrikaans University, 2004
<b>Registrations/ Affiliations</b>	Member, International Association of Impact Assessments (IAIA) South Africa, Member, Environmental Law Association (ELA) Member, Society for South African Geographers (SSAG) Member, National Clean Air Association (NACA)

**Specialisation** Environmental project management; environmental and social impact assessments and associated management plans; strategic environmental planning; closure cost assessments; environmental performance and compliance audits; environmental due diligence reviews; greenhouse gas assessments.

**Expertise** Estie Retief has 13 year's experience in the environmental consulting field. Estie has extensive experience in environmental authorisation processes relating to mining developments. Estie has strong project management skills and have assisted clients with projects from pre-feasibility phase, throughout the permitting and stakeholder consultation process towards authorisation. Estie has also been involved with auditing compliance of authorisations and environmental management plans. Estie has a keen interest in sustainability and climate change, and have been involved with the development of several greenhouse gas assessments (carbon footprint assessments) in line with international standards.

### Employment

<b>June 2017 – present</b>	SRK Consulting (Pty) Ltd, Environmental Scientist, Johannesburg
<b>March 2006 – May 2017</b>	GCS Water and Environmental Consultants, Environmental Project Manager, Johannesburg

### Publications

“Regulatory detail still lacking to comply with Climate Change Bill” published on BizCommunity on 21 August 2018.  
 “Lack of regulatory guidance stymies Climate Change Bill preparations” – published in Mining Weekly on 31 August 2018  
 “Industry champs at climate change bit” – published on ee publishers on 4 September 2018  
 “Where’s the regulatory detail?” – published in Mining Mirror on 1 November 2018

### Languages

English – read, write, speak (Excellent)  
 Afrikaans – read, write, speak (Excellent)

# Estie Retief

## Environmental Scientist

### Key Experience: Environmental authorisation process

Location: La Mercy, KwaZulu-Natal Province, South Africa  
 Project duration & year: 2019-2020  
 Client: Dube Trade Port Corporation (DTPC)  
 Name of Project: Greenhouse Gas Emissions Report  
 Project Description: Undertake Greenhouse Gas Emissions Reporting  
 Job Title and Duties: Environmental Consultant – Update greenhouse gas inventory and compile greenhouse gas assessment report  
 Value of Project: ±R260 000.00

Location: Witbank, Mpumalanga Province, South Africa  
 Project duration & year: November 2018 - Current  
 Client: Anglo Operations Limited  
 Name of Project: SACE Lifex  
 Project Description: Pre-Feasibility Assessment for proposed future workings  
 Job Title and Duties: Environmental Consultant – Greenhouse gas (GHG) assessment, client contact, document compilation, timeframe coordination, authority and stakeholder consultation, specialist and consultant management.  
 Value of Project: ±R4 200 000.00

Location: Thabazimbi, Limpopo Province, South Africa  
 Project duration & year: September 2018 - Current  
 Client: Anglo Operations Limited  
 Name of Project: Rustenburg Platinum Mines, Amandelbult Complex, Fine Chrome Recovery Plant  
 Project Description: Environmental Authorisation Process (which required MPRDA, NEMA & NWA applications) for proposed Fine Chrome Recovery Plant  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, authority and stakeholder consultation, specialist and consultant management.  
 Value of Project: ±R2 000 000.00

Location: Steelpoort, Limpopo Province, South Africa  
 Project duration & year: August 2018 - Current  
 Client: Anglo Operations Limited  
 Name of Project: Der Brochen Amendment Project  
 Project Description: Consolidated Environmental Authorisation Process for proposed expansion activities relating to underground mining activities and associated mining related infrastructure.  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, authority and stakeholder consultation, specialist and consultant management.  
 Value of Project: ±R3 000 000.00

Location: Gauteng Province, South Africa  
 Project duration & year: Initiated in 2018 - ongoing  
 Client: Confidential  
 Name of Project: Closure Assessment of underground mine workings  
 Project Description: Environmental Authorisation Process (which required MPRDA, NEMA & NWA applications) for underground mining, additional shaft and associated infrastructure including ventilation shafts  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, authority and stakeholder consultation, specialist and consultant management.  
 Value of Project: Confidential

# Estie Retief

## Environmental Scientist

### **Key Experience: Environmental authorisation process**

Location:	Mpumalanga Province, South Africa
Project duration & year:	1 month - 2018
Client:	Confidential
Name of Project:	Environmental and Social Competent Persons review
Project Description:	Review of environmental and social issues, risks and liabilities associated with mining related assets.
Job Title and Duties:	Environmental reviewer
Value of Project:	Confidential
Location:	North West Province, South Africa
Project duration & year:	1 month - 2018
Client:	Confidential
Name of Project:	Environmental and Social Competent Persons review
Project Description:	Review of environmental and social issues, risks and liabilities associated with mining related assets.
Job Title and Duties:	Environmental reviewer
Location:	Kya Sands, Gauteng Province, South Africa
Project duration & year:	March – April 2018
Client:	Waste Worx
Name of Project:	Audit
Project Description:	Audit to determine compliance of operations at Kya Sands Facility
Job Title and Duties:	Environmental Consultant – Compilation of audit report
Value of Project:	±R30 000.00
Location:	Limpopo Province, South Africa
Project duration & year:	March – April 2018
Client:	DRA Global
Name of Project:	Environmental Plan
Project Description:	Compilation of Construction Phase Environmental Compliance Plan
Job Title and Duties:	Environmental Consultant - client contact, document compilation,
Value of Project:	±R60 000.00
Location:	Steelpoort, Limpopo Province, South Africa
Project duration & year:	November 2017 – April 2018
Client:	Modikwa Platinum Mine
Name of Project:	Environmental Audit for Fuel and Hazardous storage areas
Project Description:	Environmental Compliance Audit in terms of the NEMA for Fuel and Hazardous storage areas and compliance monitoring for Volatile Organic Compounds (VOCs’).
Job Title and Duties:	Environmental Consultant - client contact, document compilation, timeframe coordination, specialist and consultant management.
Value of Project:	±R140 000.00

# Estie Retief

## Environmental Scientist

### **Key Experience: Environmental authorisation process**

Location: Thabazimbi, Limpopo Province, South Africa  
 Project duration & year: September 2017 – December 2018  
 Client: Anglo Operations Limited  
 Name of Project: Rustenburg Platinum Mines, Amandelbult Complex, Tumela 15 East Dropdown and Dishaba 62 East Raise Bore Project  
 Project Description: Environmental Authorisation Process (which required MPRDA, NEMA & NWA applications) for underground mining, additional shaft and associated infrastructure including ventilation shafts  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, authority and stakeholder consultation, specialist and consultant management.  
 Value of Project: ±R2 000 000.00

Location: Steelpoort, Limpopo Province, South Africa  
 Project duration & year: July 2017 – December 2017  
 Client: Modikwa Platinum Mine  
 Name of Project: Environmental Compliance Audit  
 Project Description: Mine wide Environmental Compliance Audit in terms of the NEMA & MPRDA  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, drafting and review of documents  
 Value of Project: ±R120 000.00

Location: Steelpoort, Limpopo Province, South Africa  
 Project duration & year: July 2017 – December 2017  
 Client: Modikwa Platinum Mine  
 Name of Project: Doornbosch Addition  
 Project Description: Environmental Authorisation Process (NEMA application) for inclusion of an additional area for underground mining into the existing Mining Rights Area  
 Job Title and Duties: Environmental Consultant - client contact, document compilation, timeframe coordination, authority and stakeholder consultation.  
 Value of Project: ±R800 000.00

Location: Delmas, Mpumalanga, South Africa  
 Project duration & year: Ongoing, initiated in October 2016 (started with new appointment prior to project completion)  
 Client: Exxaro  
 Name of Project: Eloff Phase 1  
 Project Description: The development of Phase 1 of a proposed opencast coal mine which required MPRDA, NEMA & NEM: WA and NWA applications.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, budget control and invoicing.  
 Value of Project: ±R2 000 000.00

Location: Near Piet Retief, Mpumalanga, South Africa  
 Project duration & year: Ongoing, initiated in April 2017 (started with new appointment prior to project completion)  
 Client: Kangra Coal  
 Name of Project: Kusipongo expansion project  
 Project Description: The development of a proposed underground coal mine which will link to the existing Kangra operations. The project required MPRDA, NEMA and NWA applications.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, budget control and invoicing.  
 Value of Project: ±R1 500 000.00

## Estie Retief

### Environmental Scientist

#### **Key Experience: Environmental authorisation process**

Location: Near Kriel, Mpumalanga, South Africa  
 Project duration & year: Initiated in 2015 (started with new appointment prior to project completion)  
 Client: Exxaro  
 Name of Project: Matla Stooing and Consolidation of WUL and EMP  
 Project Description: Existing Underground Coal Mine. Client proposed to continue with stooing of remaining underground pillars, and consolidate their existing NWA and MPRDA Authorisations.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, budget control and invoicing.  
 Value of Project: ±R4 500 000.00

Location: Lesotho  
 Project duration & year: Project Initiated in November 2016 and Finalised in March 2017.  
 Client: Gem Diamonds  
 Name of Project: Carbon Footprint (GHG Assessment) and Water Footprint Update  
 Project Description: Update of the Gem Diamonds Group Carbon Footprint (Greenhouse Gas Assessment) and Water Footprints  
 Job Title and Duties: Specialist – Update of the group carbon footprint  
 Value of Project: ±R100 000.00

Location: Near Hotazel, Northern Cape, South Africa  
 Project duration & year: 2014 - 2016  
 Client: Hatch Goba (through appointment of Eramet)  
 Name of Project: Mukulu Manganese Mine  
 Project Description: Mukulu Manganese Mine was a proposed opencast and underground manganese mine which required MPRDA, NEMA & NEM: WA and NWA IWULA/IWWMP applications. As the project evolved, two additional NEMA authorisations was required to realign a provincial road, and to move Eskom power lines. The project was however cancelled prior to submission..  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents.  
 Value of Project: ±R9 000 000.00

Location: Westonaria, Gauteng, South Africa  
 Project duration & year: 2014 - 2016  
 Client: Sibanye Gold  
 Name of Project: Cooke 2 Tailings Backfill Plant  
 Project Description: The development of a tailings pipeline from existing plant, over the Wonderfontein spruit to a new constructed plant to be used as backfill material to stabilise underground workings which required MPRDA, NEMA, NWA and NNR applications.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R2 500 000.00

## Estie Retief

### Environmental Scientist

#### Key Experience: Environmental authorisation process

Location:	Near Kriel, Mpumalanga, South Africa
Project duration & year:	Project initiated in November 2014 with Authority feedback still outstanding (started with new appointment prior to project completion)
Client:	Exxaro
Name of Project:	Rietkuil-Vhakoni
Project Description:	Proposed Underground Coal Mine which required MPRDA, NEMA & NEM: WA and NWA applications.
Job Title and Duties:	Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, budget control and invoicing.
Value of Project:	±R2 000 000.00
Location:	Belfast, Mpumalanga, South Africa
Project duration & year:	2013 - 2015
Client:	Exxaro
Name of Project:	Glisa Water Treatment Plant
Project Description:	The development of a Reverse Osmosis Water Treatment Plant which required MPRDA, NEMA & NEM: WA and NWA applications, to treat the decant water from existing operations.
Job Title and Duties:	Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, update of financial provision for closure, budget control and invoicing.
Value of Project:	±R1 500 000.00
Location:	Near Boksburg, Gauteng, South Africa
Project duration & year:	2013 (approximately 1 month duration)
Client:	Clover Alloys
Name of Project:	Monterey Sands due Diligence Assessment
Project Description:	Due Diligence Assessment of the site was required prior to the operation being purchased to ascertain if there are any areas of non-compliance.
Job Title and Duties:	Project Manager – client contact, timeframe coordination, drafting of due diligence report
Value of Project:	±R50 000.00
Location:	Near Kathu, Northern Cape, South Africa
Project duration & year:	2012 - 2014
Client:	Khumani Iron Ore Mine
Name of Project:	Off-Grade 2 Plant
Project Description:	Off-Grade 2 Plant expansion which required MPRDA, NEMA and NWA applications.
Job Title and Duties:	Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, update of financial provision for closure, budget control and invoicing.
Value of Project:	±R900 000.00
Location:	Near Kathu, Northern Cape, South Africa
Project duration & year:	Bi-monthly for the period 2012 – 2013 (approximately 1 month duration per audit)
Client:	Khumani Iron Ore Mine
Name of Project:	WHIMS and TFR Environmental Audits
Project Description:	Annual EMP audit on the railway relocation and plant expansion projects.
Job Title and Duties:	Project Manager – client contact, timeframe coordination, drafting of audit reports, budget control and invoicing.
Value of Project:	±R35 000.00 (per audit)

## Estie Retief

### Environmental Scientist

#### **Key Experience: Environmental authorisation process**

Location: Near Port Edward, Eastern Cape, South Africa  
 Project duration & year: 2012  
 Client: Mineral Sands Resources  
 Name of Project: Xolobeni: Kwanyana Heavy Mineral Sands Offshore Prospecting Right  
 Project Description: Update of the Prospecting Right Application in terms of the MPRDA for the Xolobeni block proposed mineral sands mine area.  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, management of stakeholder consultation specialist, authority and stakeholder consultation, consultant management, review of documents, budget control and invoicing.  
 Value of Project: ±R200 000.00

Location: Near Kriel, Mpumalanga, South Africa  
 Project duration & year: 2011 – 2013  
 Client: Exxaro  
 Name of Project: Matla Water Treatment Plant  
 Project Description: The development of a Reverse Osmosis Water Treatment Plant which required MPRDA, NEMA & NEM: WA and NWA applications, to treat the decant water from existing operations.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R2 000 000.00

Location: Near Lutzville, Northern Cape, South Africa  
 Project duration & year: 2011  
 Client: Mineral Sands Resources  
 Name of Project: Tormin Heavy Mineral Sands Offshore Prospecting Right Application  
 Project Description: for prospecting in terms of the MPRDA.  
 Job Title and Duties: Project Manager – authority and stakeholder consultation, budget control and invoicing.  
 Value of Project: R80 000.00

Location: Belfast, Mpumalanga, South Africa  
 Project duration & year: 2010 - 2012  
 Client: Exxaro  
 Name of Project: Glisa Consolidation  
 Project Description: Consolidation of existing EMP's in terms of the MPRDA, NEMA Basic Assessment and NWA applications, to consolidate the EMPs for the existing operations, and authorise new infrastructure and mine plan.  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R2 500 000.00

# Estie Retief

## Environmental Scientist

### **Key Experience: Environmental authorisation process**

Location: Stilfontein, North West Province, South Africa  
 Project duration & year: 2010  
 Client: Mine Waste Solutions  
 Name of Project: Interim Deposition Strategy on MWS Dam 4  
 Project Description: As a result of potential delays in the environmental authorisation process for a proposed mega tailings facility, there was a need to authorise an existing tailings dam to receive tailings as a potential interim deposition strategy in terms of the MPRDA and NWA applications.  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, authority and stakeholder consultation, drafting of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R200 000.00

Location: Near Piet Retief & Wakkerstroom, Mpumalanga, South Africa  
 Project duration & year: 2010  
 Client: Kangra Coal Mines  
 Name of Project: Kusipongo Baseline Risk Assessment and Site Selection Process  
 Project Description: Proposed  
 Job Title and Duties: Project Manager – client contact, appointing of specialists, timeframe coordination, authority and stakeholder consultation, specialist and consultant management, drafting and review of documents, budget control and invoicing.  
 Value of Project: ±R1 000 000.00

Location: Near Cape Town and Stellenbosch, Western Cape, South Africa  
 Project duration & year: 2010; approximately 4 months  
 Client: African Exploration, Mining and Finance Corporation (AEMFC)  
 Name of Project: AEMFC Prospecting Rights  
 Project Description: Application for Prospecting Rights in terms of the MPRDA  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R400 000.00

Location: Orkney, North West Province, South Africa  
 Project duration & year: 2009, approximately 2 months  
 Client: Buffelsfontein Gold Mine  
 Name of Project: Tau Lekoa EMP consolidation  
 Project Description: Consolidation of existing EMPs for the Tau Lekoa mine  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, authority and stakeholder consultation, drafting of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R 200 000.00

Location: Bethal, Mpumalanga, South Africa  
 Project duration & year: 2009, approximately 1 year  
 Client: Total Coal South Africa  
 Name of Project: Forzando North  
 Project Description: The proposed establishment of a new tailings storage facility and conveyor at the existing Forzando North mine.  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, authority and stakeholder consultation, drafting of documents, update of financial provision for closure, budget control and invoicing.  
 Value of Project: ±R1 200 000.00

# Estie Retief

## Environmental Scientist

### **Key Experience: Environmental authorisation process**

Location: Stilfontein, North West Province, South Africa  
 Project duration & year: 2008 - 2010  
 Client: Mine Waste Solutions  
 Name of Project: Mega Tailings Storage Facility  
 Project Description: The site selection and authorisation of a mega tailings storage facility to accommodate the reworked tailings of the existing Mine Waste Solutions, and Buffelsfontein Gold Mines tailings dams. The project involved authorisation in terms of the MPRDA, NEMA and NWA legislation.  
 Job Title and Duties: Environmental Consultant –authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R3 000 000.00

Location: Stilfontein, North West Province, South Africa  
 Project duration & year: 2008 – 2010  
 Client: Buffelsfontein Gold Mines Limited  
 Name of Project: BGM EMP Conversion & Amendment  
 Project Description: Conversion amendment application of existing rights in terms of the MPRDA.  
 Job Title and Duties: Environmental Consultant –authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R300 000.00

Location: Mooinooi, North West Province, South Africa  
 Project duration & year: 2008  
 Client: Team 6 Mineral and Energy Resources  
 Name of Project: Team 6 Buffelspoort Prospecting Right Application  
 Project Description: Application for Prospecting Rights in terms of the MPRDA  
 Job Title and Duties: Environmental Consultant –authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R100 000.00

Location: Lephalale, Limpopo, South Africa  
 Project duration & year: Annual EMP Audits 2007 - 2013 (approximately 1 month duration per audit)  
 Client: Anglo Thermal Coal  
 Name of Project: Bultklip Coal Bed Methane Pilot Project  
 Project Description: Annual EMP audit on the existing Bultklip Coal Bed Methane Pilot Project Authorisation;  
 Job Title and Duties: Project Manager – client contact, timeframe coordination, drafting of audit report, update of Financial Provision.  
 Value of Project: ±R50 000.00

Location: Westonaria, Gauteng, South Africa  
 Project duration & year: 2007, approximately 1 year  
 Client: First Uranium South Africa  
 Name of Project: Ezulwini Prospecting Right Application  
 Project Description: Application for Prospecting Rights in terms of the MPRDA  
 Job Title and Duties: Environmental Consultant –authority and stakeholder consultation  
 Value of Project: ±R200 000.00

Location: Stilfontein, North West Province, South Africa  
 Project duration & year: 2007, approximately 1 year  
 Client: Buffelsfontein Gold Mine  
 Name of Project: Buffelsfontein Prospecting Right Application  
 Project Description: Application for Prospecting Rights for uranium for the existing Buffelsfontein Gold Mines  
 Job Title and Duties: Environmental Consultant –authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R200 000.00

## Estie Retief

### Environmental Scientist

#### **Key Experience: Environmental authorisation process**

Location: Stilfontein, North West Province, South Africa  
 Project duration & year: 2007, approximately 1 year  
 Client: Mine Waste Solutions  
 Name of Project: MWS 3 Dump Prospecting Right Application  
 Project Description: Application for Prospecting Rights for uranium for the existing 3 tailings storage facilities  
 Job Title and Duties: Environmental Consultant – authority and stakeholder consultation, drafting of documents, budget control and invoicing.  
 Value of Project: ±R200 000.00

Location: Near Port Edward, Eastern Cape, South Africa  
 Project duration & year: 2007  
 Client: Mineral Sands Resources  
 Name of Project: Xolobeni: Mining Right  
 Project Description: The project entailed the application for Mining Rights in terms of the MPRDA for four resource blocks.  
 Job Title and Duties: Environmental Consultant – update of stakeholder consultation report.  
 Value of Project: Unknown

Location: Utrecht, Kwazulu Natal, South Africa  
 Project duration & year: 2006, approximately 4 months  
 Client: Kangra Coal  
 Name of Project: Klipspruit Colliery IWUL  
 Project Description: Application for WUL for Klipspruit Colliery  
 Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
 Value of Project: Unknown

Location: Utrecht, Kwazulu Natal, South Africa  
 Project duration & year: 2006, approximately 4 months  
 Client: Kangra Coal  
 Name of Project: Umgala/Knights Hill Colliery IWUL  
 Project Description: Application for WUL for Umgala/Knights Hill Colliery  
 Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
 Value of Project: Unknown

Location: Utrecht, Kwazulu Natal, South Africa  
 Project duration & year: 2006, approximately 4 months  
 Client: Kangra Coal  
 Name of Project: Aasvoelkrans Colliery IWUL  
 Project Description: Application for WUL for Aasvoelkrans Colliery  
 Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
 Value of Project: Unknown

Location: Piet Retief, Mpumalanga, South Africa  
 Project duration & year: 2006, approximately 4 months  
 Client: Kangra Coal  
 Name of Project: Panbult Siding WUL  
 Project Description: Application for WUL for Panbult Siding.  
 Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
 Value of Project: Unknown

# Estie Retief

## Environmental Scientist

### **Key Experience: Environmental authorisation process**

Location: Midrand, Gauteng, South Africa  
Project duration & year: 2006, approximately 2 months  
Client: Nestle/Valvita  
Name of Project: Nestle Water Use Authorisation  
Project Description: Update of water use authorisation for Nestle bottling plant.  
Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
Value of Project: Unknown

Location: Mooinooi, Northwest Province, South Africa  
Project duration & year: 2006, approximately 2 months  
Client: Samancor Western Chrome Mines  
Name of Project: Mooinooi and Millsell WUL  
Project Description: Application for WUL for Millsell and Mooinooi operations  
Job Title and Duties: Environmental Consultant – update of licensing forms, consultation with authorities.  
Value of Project: Unknown

# Thumo Neluvhalani

## Environmental Scientist



<b>Profession</b>	Environmental Scientist
<b>Education</b>	MA Environment and Society, University of Pretoria (2018)
<b>Registrations/ Affiliations</b>	n/a

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### Specialisation

Environmental management plans, environmental monitoring and auditing, SGS ISO 14001:2004 lead auditor training certification: environmental management systems, water use licence applications, environmental law, research and presentation, basics of GIS.

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### Expertise

Thumo Neluvhalani has been involved in the field of environmental science for the past 3 years. Her expertise includes:

- environmental monitoring and auditing;
- water use license applications;
- environmental authorisations;
- mine closure;
- research.

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### Employment

<b>Nov 2016 – present</b>	SRK Consulting (Pty) Ltd, Environmental Scientist, Johannesburg
<b>2016</b>	Landscape Architects and Environmental Planners: Environmental Control Officer/Environmental Consultant
<b>2015 – 2016</b>	National Agricultural Marketing Council, Research Intern

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### Languages

English – read, write, speak  
Afrikaans – read, write, speak  
Setswana – read, write, speak  
Tshivenda – read, write, speak  
Xitsonga – read, write, speak

# Thumo Neluvhalani

## Environmental Scientist

### Key Experience: Environmental projects (*Inter alia*)

Location: Limpopo  
 Project duration & year: August 2018 (Period in which I worked on the project)  
 Client: Anglo American Platinum  
 Name of Project: AAP Closure Liability Assessment  
 Project Description: AAP Closure Liability Assessment  
 Job Title and Duties: Closure Liability report compilation  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: July 2018 (Period in which I worked on the project)  
 Client: Implats  
 Name of Project: Marula Platinum Mine EMPr PAR  
 Project Description: Marula Platinum Mine –External EMPr Performance Assessment  
 Job Title and Duties: External Environmental Audit  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: April 2018  
 Client: DRA Glencore  
 Name of Project: Baobab Mine Pilot Crusher plant project  
 Project Description: Baobab Mine Pilot Crusher plant environmental protection and response plan  
 Job Title and Duties: Environmental Manager  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: March 2018  
 Client: Anglo American Platinum  
 Name of Project: Der Brochen/Mototolo and Mareesburg annual WUL Audit  
 Project Description: Der Brochen/Mototolo and Mareesburg annual External WUL Audit  
 Job Title and Duties: External Auditor  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: January 2017  
 Client: Anglo American Platinum  
 Name of Project: Mareesburg – Tailings Storage Facility  
 Project Description: Mareesburg TSF water monitoring protocol  
 Job Title and Duties: Compilation of water monitoring protocol  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: July 2017  
 Client: Anglo American Platinum  
 Name of Project: Modikwa Platinum Mine – EMP Performance Assessment  
 Project Description: Modikwa Platinum Mine – External EMP Performance Assessment  
 Job Title and Duties: External Auditor  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: October 2017  
 Client: Anglo American Platinum  
 Name of Project: Modikwa Platinum Mines Environmental Audit  
 Project Description: Environmental audit for above ground fuel and hazardous substances storage at Modikwa Platinum Mine  
 Job Title and Duties: External Auditor  
 Value of Project: n/a

# Thumo Neluvhalani

## Environmental Scientist

### Key Experience: Environmental projects (*Inter alia*)

Location: North West  
 Project duration & year: July 2017  
 Client: Glencore (Pty) Ltd  
 Name of Project: Rietvly Silica Mine  
 Project Description: Rietvly Silica Mine - Integrated Water and Waste Management Plan  
 Job Title and Duties: Environmental Manager  
 Value of Project: n/a

Location: North West  
 Project duration & year: March 2017  
 Client: Anglo American Platinum  
 Name of Project: Rustenburg Platinum Mines – Amandelbult Section  
 Project Description: Rustenburg Platinum Mines – Amandelbult IDM  
 Job Title and Duties: Safety and Sustainable Development Model  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: March 2017  
 Client: Anglo American Platinum  
 Name of Project: Der Brochen/Mototolo - Water Use Licence Audit  
 Project Description: External water use licence compliance audit at Der Brochen/Mototolo  
 Job Title and Duties: External Auditor  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: October 2017  
 Client: Anglo American Platinum  
 Name of Project: Bokoni Platinum Mine – Care and Maintenance  
 Project Description: Bokoni Platinum Mine – Care and Maintenance Environmental Risk Assessment and Action Plan Requirements  
 Job Title and Duties: Risk assessment and action plan  
 Value of Project: n/a

Location: Gauteng  
 Project duration & year: February 2017 (Period in which I worked on the project)  
 Client: Anglo American Platinum  
 Name of Project: Anglo American Platinum Amandelbult Section  
 Project Description: Anglo American Platinum Amandelbult Section State of the Environment Report  
 Job Title and Duties: State of the Environment Reporting  
 Value of Project: n/a

Location: Gauteng  
 Project duration & year: February 2017 (Period in which I worked on the project)  
 Client: Anglo American Platinum  
 Name of Project: Anglo American Platinum Amandelbult Section  
 Project Description: Anglo American Platinum Amandelbult Section Investment Development Model (IDM)  
 Job Title and Duties: IDM Hydrocarbons Section  
 Value of Project: n/a

# Thumo Neluvhalani

## Environmental Scientist

### Key Experience:

### Environmental projects (*Inter alia*)

Location: Limpopo  
 Project duration & year: March 2017 (Period in which I worked on the project)  
 Client: Modikwa Platinum Mine  
 Name of Project: Modikwa Platinum Mine Road Upgrade Project  
 Project Description: Road Upgrade Project  
 Job Title and Duties: Basic Assessment Report and associated Public Participation processes  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: July 2017  
 Client: Modikwa Platinum Mine  
 Name of Project: Modikwa Platinum Mine EMP 2016/17 External Compliance and Performance Assessment  
 Project Description: External Compliance Performance Assessment and Report  
 Job Title and Duties: Performance Assessment Audit and report writing  
 Value of Project: n/a

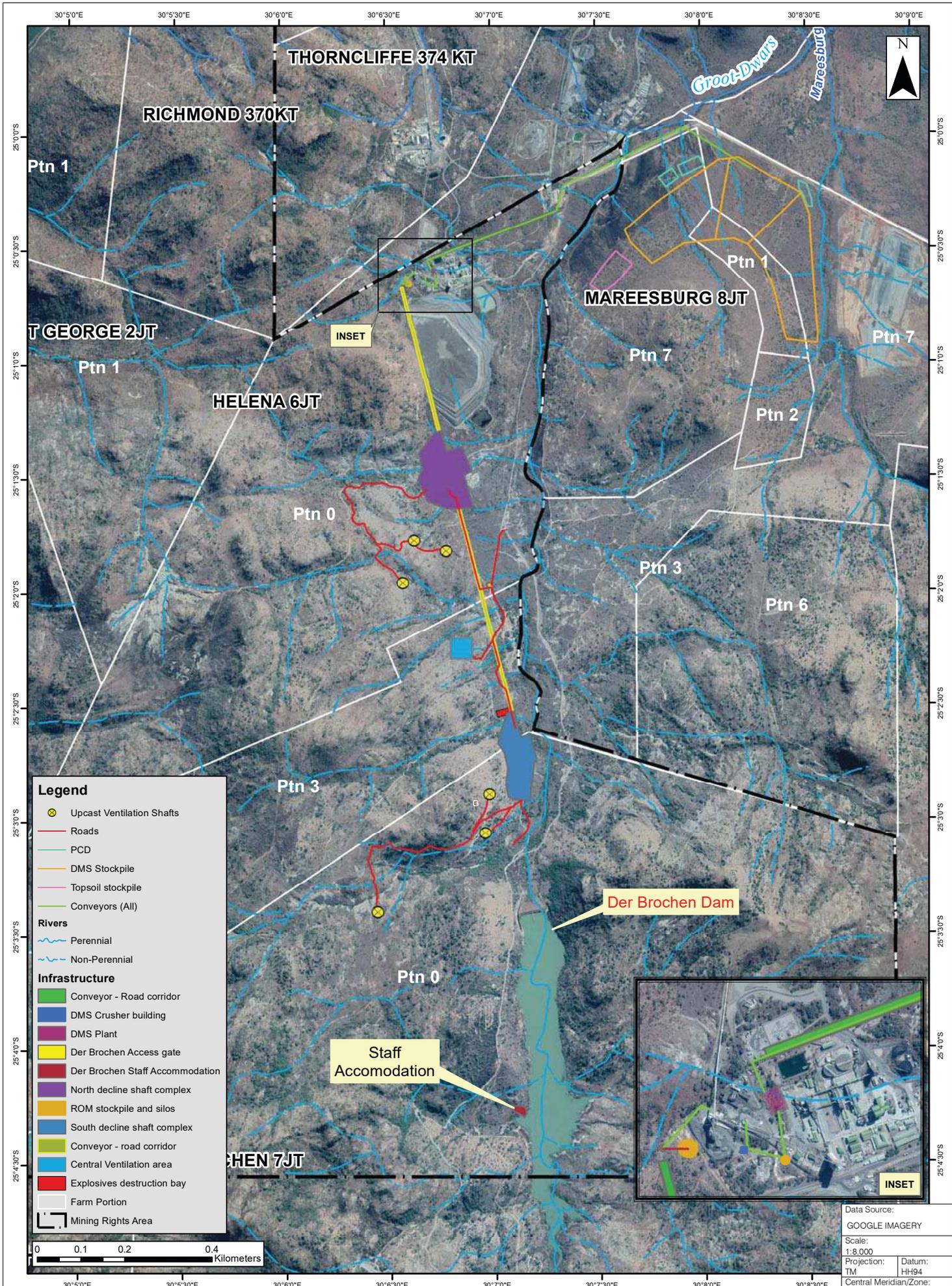
Location: Limpopo  
 Project duration & year: August 2017 – September 2017  
 Client: Bokoni Platinum Mine  
 Name of Project: Bokoni Platinum Mine Care & Maintenance Gap Analysis and Risk Assessment  
 Project Description: Gap Analysis and Risk Assessment  
 Job Title and Duties: Care and Maintenance audit and Risk Assessment compilation

Location: Gauteng  
 Project duration & year: January 2016 – October 2016 (Period in which I worked on the project)  
 Client: Zotec Developments Proprietary Limited  
 Name of Project: Clayville X50 & X71  
 Project Description: Construction of a mixed-use development  
 Job Title and Duties: Water Use Licence Application  
 Value of Project: n/a

Location: Limpopo  
 Project duration & year: November 2016 (Period in which I worked on the project)  
 Client: Anglo American Platinum  
 Name of Project: Mareesburg Tailings Storage Facility  
 Project Description: Tailings Storage Facility  
 Job Title and Duties: Water Monitoring Protocol  
 Value of Project: n/a

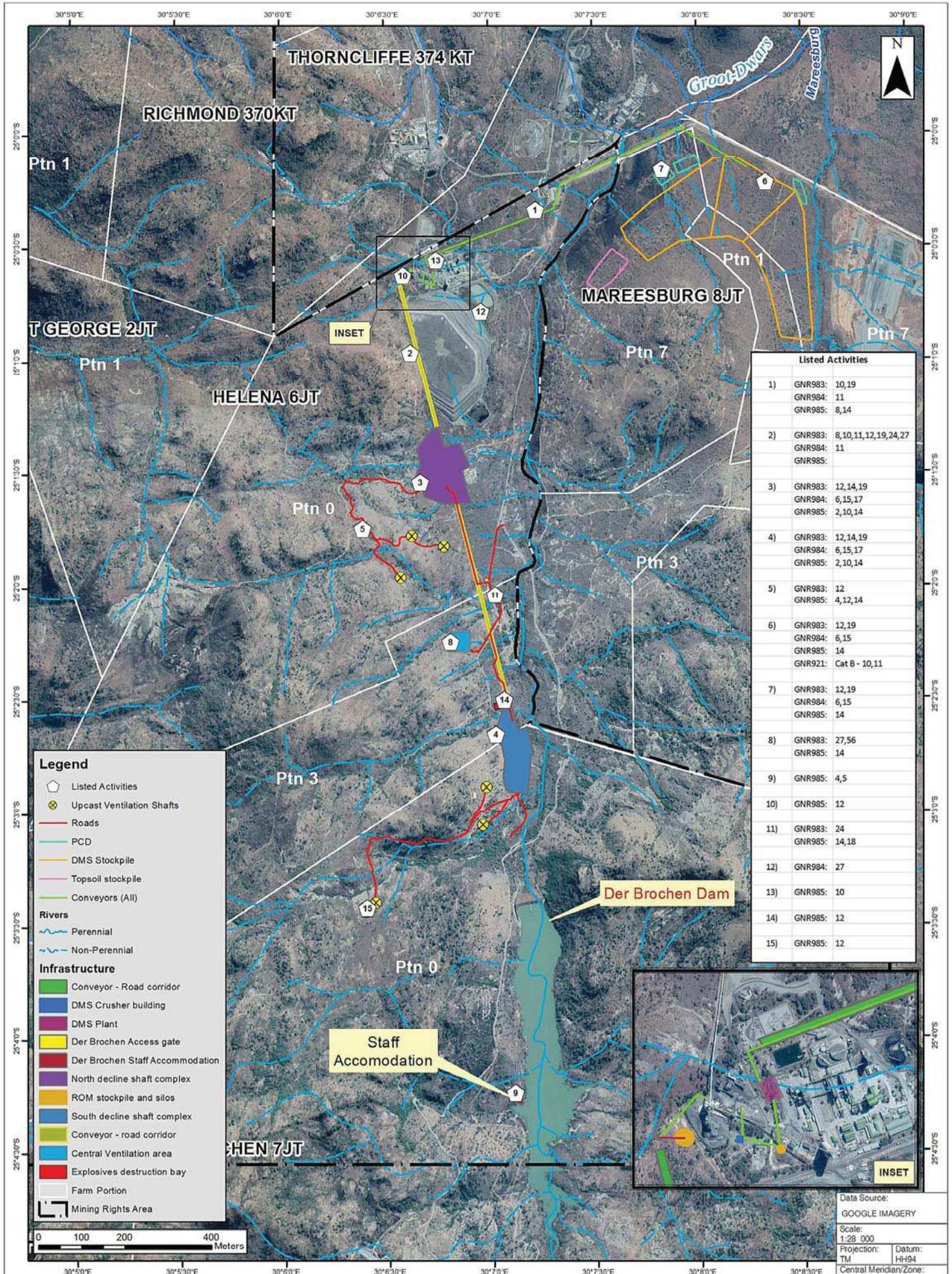
Location: North West  
 Project duration & year: December 2016 (Period in which I worked on the project)  
 Client: Anglo American Platinum  
 Name of Project: Rustenburg Platinum Mines – Amandelbult Section  
 Project Description: Rustenburg Platinum Mines – Amandelbult Section External Water Use Licence Audit  
 Job Title and Duties: External Water Use Licence Audit  
 Value of Project: n/a

## **Appendix 3: Der Brochen Mine Locality Map**



Data Source:		GOOGLE IMAGERY	
Scale:		1:8,000	
Projection:	TM	Datum:	HH94
Central Meridian/Zone:	LO31		
Date:	19/11/2018	Compiled by:	SCHB
Project No.	533247	Fig No.	

## **Appendix 4: Der Brochen Amendment Project Proposed infrastructure and associated listed activities map**



Listed Activities	
1)	GNR983: 10,19 GNR984: 11 GNR985: 8,14
2)	GNR983: 8,10,11,12,19,24,27 GNR984: 11 GNR985:
3)	GNR983: 12,14,19 GNR984: 6,15,17 GNR985: 2,10,14
4)	GNR983: 12,14,19 GNR984: 6,15,17 GNR985: 2,10,14
5)	GNR983: 12 GNR985: 4,12,14
6)	GNR983: 12,19 GNR984: 6,15 GNR985: 14 GNR921: Cat B - 10,11
7)	GNR983: 12,19 GNR984: 6,15 GNR985: 14
8)	GNR983: 27,56 GNR985: 14
9)	GNR985: 4,5
10)	GNR985: 12
11)	GNR983: 24 GNR985: 14,18
12)	GNR984: 27
13)	GNR985: 10
14)	GNR985: 12
15)	GNR985: 12

**Legend**

- Listed Activities
- Upcast Ventilation Shafts
- Roads
- PCD
- DMS Stockpile
- Topsoil stockpile
- Conveyors (All)

**Rivers**

- Perennial
- Non-Perennial

**Infrastructure**

- Conveyor - Road corridor
- DMS Crusher building
- DMS Plant
- Der Brochen Access gate
- Der Brochen Staff Accommodation
- North decline shaft complex
- ROM stockpile and silos
- South decline shaft complex
- Conveyor - road corridor
- Central Ventilation area
- Explosives destruction bay
- Farm Portion
- Mining Rights Area



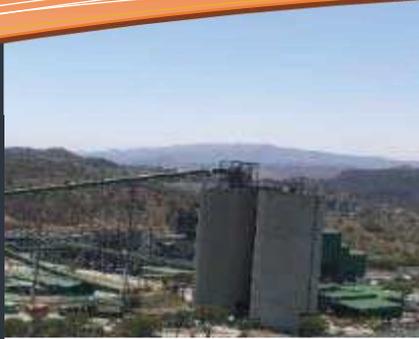
Data Source: GOOGLE IMAGERY	
Scale: 1:28 000	
Projection: TM	Datum: H-194
Central Meridian/Zone: LO31	
Date: 16/01/2019	Compiled by: SCHB
Project No. 533247	Fig No.

## **Appendix 5: Proof of Public Participation**

## **Appendix 5-1: Background information letter**

# Background Information Document

Integrated environmental authorisation process for Anglo American Platinum – Rustenburg Platinum Mines Limited's Der Brochen Mine Amendment Project, Limpopo



## ANGLO AMERICAN PLATINUM'S DER BROCHEN AMENDMENT PROJECT

DMR Reference Number **LP 30/5/1/3/2/1(182)EM**

 **srk** consulting

### PURPOSE OF DOCUMENT

Provides interested and affected parties with information about the proposed amendment project and its components, the regulatory process and how to become involved in the process.

### Invitation to comment and register as an Interested and Affected Party

You are invited to register as an interested and affected party (I&AP) for the Der Brochen Amendment Project's integrated environmental authorisation process, comment or raise any issues of concern.

Please complete the enclosed Registration and Comment Form and return to:

APIWE-ZONA DOTWANA  
SRK Consulting  
Stakeholder Engagement  
Office  
P. O. Box 55291  
Northlands  
2116

### CONTACT DETAILS:

Tel: (011) 441 6105  
Fax: 086 503 6825  
E-mail: [adotwana@srk.co.za](mailto:adotwana@srk.co.za)

## Introduction

The Der Brochen Mine is a platinum project owned by Rustenburg Platinum Mines Limited (RPM), a wholly owned subsidiary of Anglo American Platinum (AAP), and is located approximately 25 km south-west of the town of Steelpoort and 40 km west of Mashishing (Lydenburg), in the Limpopo Province. The mine falls within the Fetakgomo Tubatse Local Municipality, under jurisdiction of the Greater Sekhukhune District Municipality.

It is the intention of RPM to amend the Der Brochen Mine's approved Environmental Management Programme (EMPr) and associated Environmental Authorisation (EA) as well as updating their existing Water Use Licence (WUL) to include the following:

- The development of a buttress wall at the existing Helena Tailing Storage Facility (TSF) as well as the development of an additional filter press plant at the existing Mototolo Concentrator Plant, under emergency circumstances, as agreed by the Department of Mineral Resources (DMR) in October 2017;
- The updated topsoil management plan of the Der Brochen Mine;
- The development and operation of the following additional mining related infrastructure as part of the mine's development strategy:
  - Two new decline shafts (North and South shafts) to access new underground mining operation areas to be mined through the bord-and-pillar mining method. RPM intends to locate the North decline shaft within the previously approved footprint of the North Open Pit area, and the South decline shaft within the previously approved South Open Pit area;
  - Six up-cast ventilation shafts (three ventilation shafts per new decline shafts);
  - A central ventilation area will service both proposed decline shafts;
  - A Dense Medium Separation (DMS) Plant within the existing Mototolo Concentrator area;
  - A DMS Stockpile area and associated pollution control dam;
  - An additional Chrome Plant within the existing Mototolo Concentrator area;
  - Additional Run of Mine stockpiles and silos;
  - Change houses and office complex to be located at each of the decline shafts;
  - An explosive destruction bay area to be located near the proposed South decline shaft;
  - Additional linear infrastructure, i.e. conveyor systems, access and haul roads; and
  - Staff accommodation facilities to be located near the Der Brochen Dam.

Please refer to Figure 1 for the location of the proposed infrastructure in relation to the nearest towns and roads in the region.

# Der Brochen Amendment Project

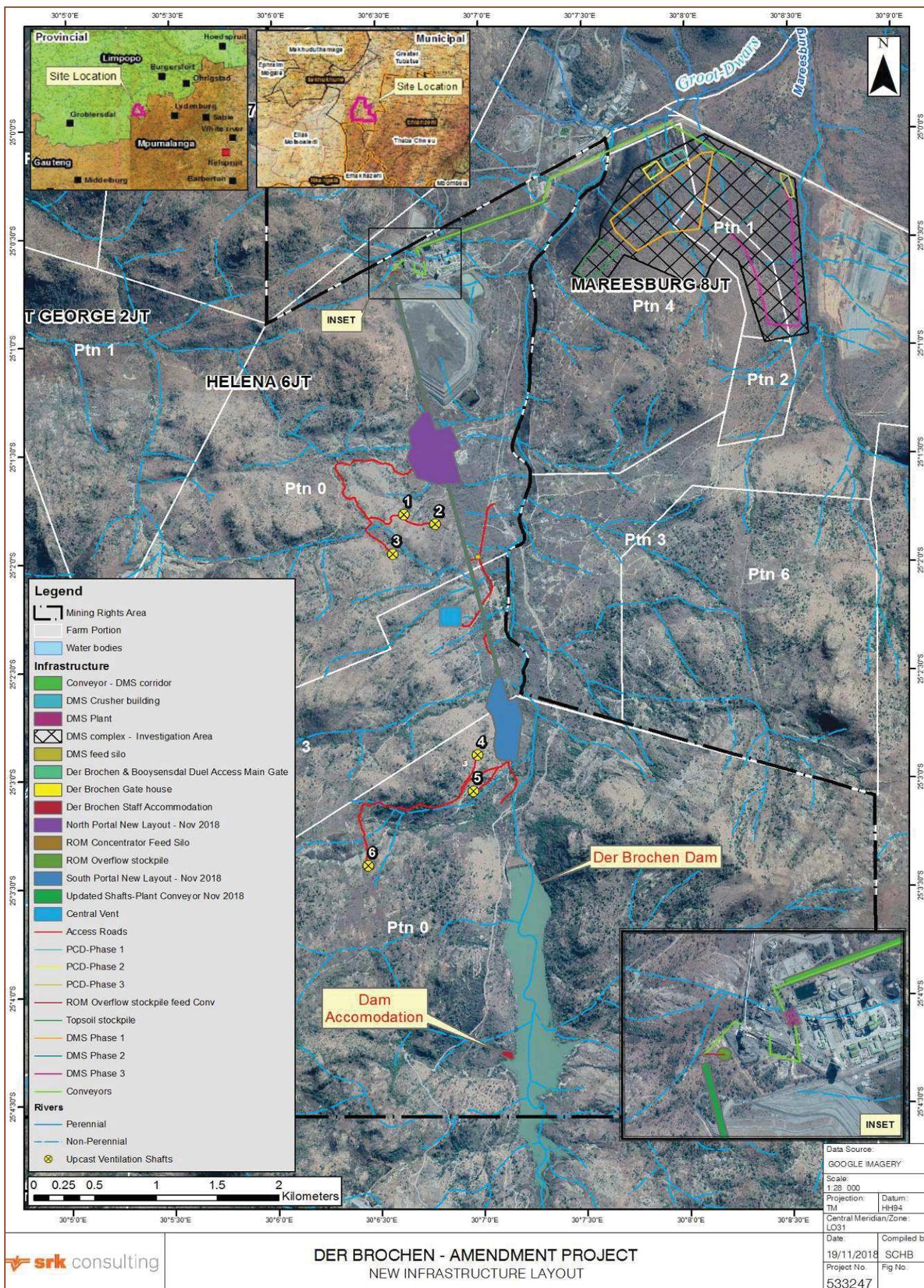


Figure 1: Regional locality map of the Der Brochen Amendment Project

## Who is Anglo American Platinum?

Anglo American Platinum Limited is the world's leading primary producer of platinum group metals (PGMs) and accounts for about 40% of the world's newly mined platinum. The Company is listed on the JSE Limited and has its headquarters in Johannesburg, South Africa.



## Background

The Der Brochen Mine's mining right (Figure 2) falls on the following farms:

- Richmond 370 KT (Remaining extent, portions 1 and 2);
- St George 2 JT (Remaining extent, portions 1 and 2);
- Hermansdal 3 JT (Remaining extent);
- Hebron 5 JT (Remaining extent and portion 1);
- Helena 6 JT (Remaining extent and portion 3); and
- Der Brochen 7 JT (Remaining extent).

In addition to the above-mentioned farms, RPM also holds the surface right to Portion 7 of the farm Mareesburg 8 JT on which the Mareesburg tailings storage facility (TSF), associated return water dams (RWDs) and tailings-return water pipeline are located. This forms part of the existing Der Brochen Mine operation.

The following activities and infrastructure are associated with the Der Brochen Mine, as authorised through the Der Brochen Mine's approved Environmental Management Programmes (EMPRs) and current Water Use Licences (WULs):

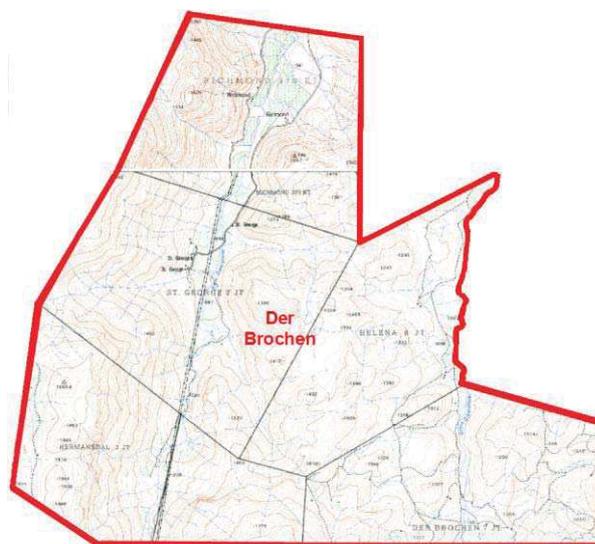


Figure 2: Der Brochen Mine's Mining Right

### Existing facilities and activities:

- The Mototolo Concentrator;
- The Helena TSF with two associated Return Water Dams (RWDs);
- Mine offices (old farm house) and access roads;
- Prospecting activities comprising of site preparation, drilling of prospecting boreholes, site rehabilitation and monitoring;
- Trial mining area on the Richmond farm (activity is completed, and the soil stockpile and waste rock dump are well vegetated);
- Abstraction of groundwater in support of mining from the Helena and Richmond licenced wellfields; and
- Abstraction from Der Brochen Dam based on an existing lawful industrial allocation.

### Activities previously authorised, but which have not yet commenced:

- The Helena and Richmond wellfields (only two of the authorised boreholes per wellfield currently in use);
- Helena and Richmond shafts and associated waste rock dumps;
- Two Open Pits (Northern and Southern Pits) and associated waste rock/overburden dumps and pollution control dam;
- Re-routing of a 132 kV powerline; and
- A Co-Disposal Facility (tailings disposal with a rock embankment in the north pit).

### Authorised activities under construction:

- Mareesburg TSF and associated Return Water Dams (RWDs);and
- Mareesburg tailings-return water pipeline system to Mototolo Concentrator.

# Der Brochen Amendment Project



## Integrated Environmental Authorisation

Before RPM may commence with the development of the additional mining related activities, the following environmental authorisations processes and licence amendment need to be undertaken in accordance with the relevant national legislation:

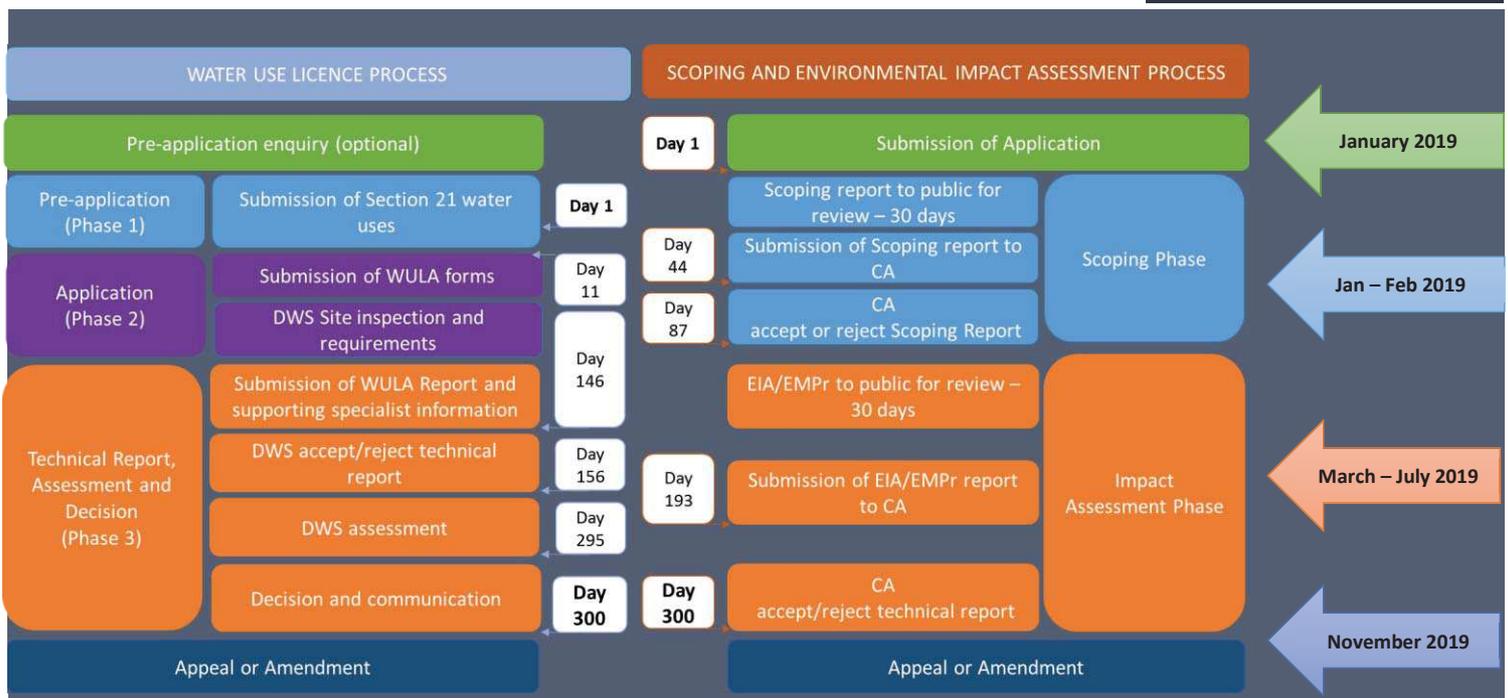
- A Scoping and Environmental Impact Assessment (EIA) for any project related Listed Activities stipulated in the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA). The Der Brochen Mine's existing Environmental Management Programme (EMPr) will be amended in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA). The Scoping, EIA and amended EMPr will be submitted to Limpopo Province's DMR for approval; and
- An updated Integrated Water Use Licence (IWUL) for any project related water uses and accompanying Integrated Water and Waste Management Plan (IWWMP) under the National Water Act (Act No. 36 of 1998) (NWA), for submission and approval from the Department of Water and Sanitation (DWS).

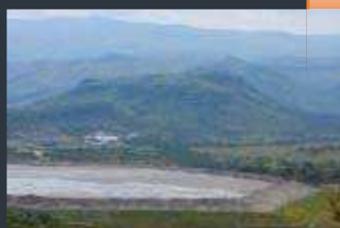
RPM appointed SRK Consulting (South Africa) (SRK) as the independent Environmental Assessment Practitioner (EAP) to manage and facilitate the integrated environmental authorisation and associated public participation process in accordance with NEMA, NEM:WA, NWA and MPRDA.

The authorisation processes will run concurrently and require the involvement of stakeholders. Therefore, a single integrated public participation process will be undertaken in compliance with all legislative requirement. The integrated environmental authorisation process, timeframes and associated public participation process are illustrated in the below.

**During Scoping phase**  
Issues for investigation during the impact assessment phase are identified and the scope of specialist studies defined. This information will be compiled into a Scoping Report that will be available for public comment for a 30 calendar day period. After the public commenting period the report will be updated to address any comments received where after it will be submitted to the DMR for consideration.

**During EIA phase**  
Potential impacts are determined and management measures are proposed to mitigate negative impacts and enhance positive impacts. The EIA, including all specialist reports and associated EMPr will also be made available for public comment for a 30 calendar day period, then updated with comments received and submitted to the DMR for decision-making.





## PROJECT RELATED LISTED ACTIVITIES AND WATER USES

A summary of the potential listed activities and water uses, associated with the expansion project, which will be applied for in terms of the above legislation is provided below:

### SPECIALISTS

Studies to be undertaken as part of the EIA:

- Air Quality;
- Biodiversity (Aquatic and Terrestrial Ecology);
- Groundwater;
- Heritage and Archaeology;
- Noise and Vibration;
- Soils, Land Use and Land Capability;
- Surface Water;
- Traffic;
- Visual;
- Rehabilitation and Closure.

NEMA Environmental Authorisation - Scoping and EIA Process	
Listing notice 1 (GN R 983) Activity and description:	Listing notice 2 (GN R 984) Activity and description:
<p><b>10</b> The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes.</p> <p><b>11</b> The development of facilities or infrastructure for the transmission and distribution of electricity.</p> <p><b>12</b> The development of infrastructure exceeding 100 m<sup>2</sup> in a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse.</p> <p><b>14</b> The development of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, with a combined capacity of 80 m<sup>3</sup> but not exceeding 500 m<sup>3</sup>.</p> <p><b>19</b> The infilling or depositing of any material of more than 10 m<sup>3</sup> into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 m<sup>3</sup> from a watercourse.</p> <p><b>24</b> The development of a road with a reserve wider than 13.5 m, or where no reserve exists where the road is wider than 8 m.</p> <p><b>30</b> Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).</p> <p><b>56</b> The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre.</p>	<p><b>6</b> The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.</p> <p><b>11</b> The development of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between (iii) impoundments.</p> <p><b>15</b> The clearance of an area of 20 hectares or more of indigenous vegetation.</p> <p><b>17</b> Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the MPRDA.</p>
	Listing notice 3 (GN R 985)
	<p><b>2</b> The development of reservoirs.</p> <p><b>4</b> The development of a road wider than 4 meters with a reserve of less than 13.5m.</p> <p><b>5</b> The development of hospitality facilities that sleep less than 15 people.</p> <p><b>8</b> The development and related operation of above ground cableways and funiculars.</p> <p><b>10</b> The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30m<sup>3</sup> but not exceeding 80m<sup>3</sup>.</p> <p><b>12</b> The clearance of an area of more than 300m<sup>2</sup> or more of indigenous vegetation.</p>
NEM:WA – Waste Management Licence (Category B (GN R 921) - Requiring a Scoping and EIA)	NWA- Section 21 Water Use Licence Requiring a Water Use Licence Application
<p><b>10</b> The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).</p> <p><b>11</b> The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which requires a mining right, exploration right or production right in terms of MPRDA.</p>	<p><b>(a)</b> Taking of water from a water resource.</p> <p><b>(b)</b> Storage of water.</p> <p><b>(c)</b> Impeding or diverting the flow of water in a watercourse.</p> <p><b>(g)</b> Disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource.</p> <p><b>(i)</b> Altering the bed, banks, course or characteristics of a watercourse.</p> <p><b>(j)</b> Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people.</p>

# Der Brochen Amendment Project

## HOW YOU CAN BE INVOLVED?

The public participation process, undertaken as part of the environmental authorisation process, is conducted in terms of NEMA's EIA Regulations of 2014 (as amended) which provides clear guidelines for stakeholder engagement during an environmental authorisation process.

The process offers stakeholders the opportunity to be informed about the project, raise comments or queries and make suggestions for enhanced project benefits. The technical specialists and project team will evaluate relevant issues and suggestions during the EIA process.

## Public Participation

You are receiving this document as we have identified you as a potential interested and affected party (I&AP) for this project. If you wish to remain an I&AP for this new authorisation process, you are invited to register as a stakeholder (registration form attached) and comment on the proposed project or raise any issue of concern. Please also contact us should you require more information on the proposed Der Brochen Amendment Project or the associated environmental authorisation process.

## Availability of the Scoping Report for Public Comment

As part of the integrated environmental authorisation process associated with the Der Brochen Amendment Project, the required Scoping Report is now available for public review and comment. The Scoping Report describes the proposed project related activities, any feasible and reasonable alternatives that were considered to date, a description of the property and the environment that may be affected and the manner in which the biological, social, economic and cultural aspects of the environment may potentially be impacted by the proposed project. The Scoping Report also includes the Plan of Study for the EIA (next phase), specifying the methodology to be used to assess the potential impacts, and the specialists investigations that are required.

**The Scoping Report is available for public review and comment for a period of thirty (30) calendar days from Friday, 25 January 2019 to Monday, 25 February 2019.**

The Scoping Report will be available in PDF format on the SRK website (<https://www.srk.co.za/en/library/za-public-documents>), and the following public places:

### Public places where the Scoping Report will be made available

Public Place	Locality	Tel No
Mapodile/Eerstegeluk Public Library	735 Kgahlanong Street, Mapodile	013 237 0039
Burgersfort Public Library	Cnr Kort & Eddie Sedibe Str, Burgersfort	013 231 7815
Kalkfontein CPA offices	Kalkfontein (Nokaneng)	No Landline
Pakaneng Community Trust Office	Schaapkraal Farm	No Landline
Gamawela Community Centre	St George Farm	No Landline

All stakeholders are encouraged to comment on the Scoping Report by Monday, **25 February 2019**, as your comments and suggestions on any aspect of the project will ultimately assist the relevant authorities to make an informed decision.

You are welcome to comment on the Scoping Report by:

- Completing the enclosed Registration and Comment Form and submitting it to the SRK Stakeholder Engagement Office;
- Writing a letter or additional written submission my mail, email, or fax;
- Attending stakeholder meetings, details of which will be communicated to registered I&APs; and
- Contacting the Stakeholder Engagement Office.

## CONTACT US

Should you have any questions, need more information, or wish to raise issues of concern or suggestions, please contact SRK's Stakeholder Engagement Office

**Ms Aphiwe-Zona Dotwana**  
Stakeholder Engagement Office  
SRK Consulting, P. O. Box 55291, Northlands, 2116  
**Tel:** (011) 441 6105  
**Fax:** 086 503 6825  
**E-mail:** [adotwana@srk.co.za](mailto:adotwana@srk.co.za)

 **srk** consulting

# Sengwalwa sa Tshedimošo ya mathomong

Tshepedišo ye e Kopantšwego ya Tumelelo go Tikologo ya Anglo American Platinum – Protšeke ya Phetošo ya Moepo wa Der Brochen wa Rustenburg Platinum Mines Limited, ka Phrobentsheng ya Limpopo



## PROTŠEKE YA PHETOŠO YA MOEPO WA DER BROCHEN WA ANGLO AMERICAN PLATINUM

Nomoro ya Tšhupetšo ya DMR LP

30/5/1/3/2/1(182)EM

 **srk** consulting

## MAIKEMIŠETŠO A SENGWALWA

Se fa batho bao ba amegago le bao ba nago le kgahlego tshedimošo ka ga protšeke ya phetošo ye e šišintšwego le dikarolo tša yona, tshepedišo ya taolo le ka fao o ka kgathago tema ka tshepedišong.

**Taletšo ya go fa ditshwaotshwao le go ingwadiša bjalo ka Motho yo a nago le Kgahlego le yo a Amegago**

O laletšwa go ingwadiša bjalo ka motho yo a nago le kgahlego le yo a amegago (I&AP) ka tshepedišong ye e kopantšwego ya tumelelo ya tikologo ya Protšeke ya Phetošo ya moepo wa Der Brochen, go fa ditshwaotshwao goba go hlagiša mathata afe goba afe ao a go amago. O kgopelwa go tlatša Fomo ye e tsentswego ya Ngwadišo le ya Ditshwaotshwao o e bušetše go:  
APHIWE-ZONA DOTWANA  
SRK Consulting  
Stakeholder Engagement  
Office  
P. O. Box 55291  
Northlands  
2116

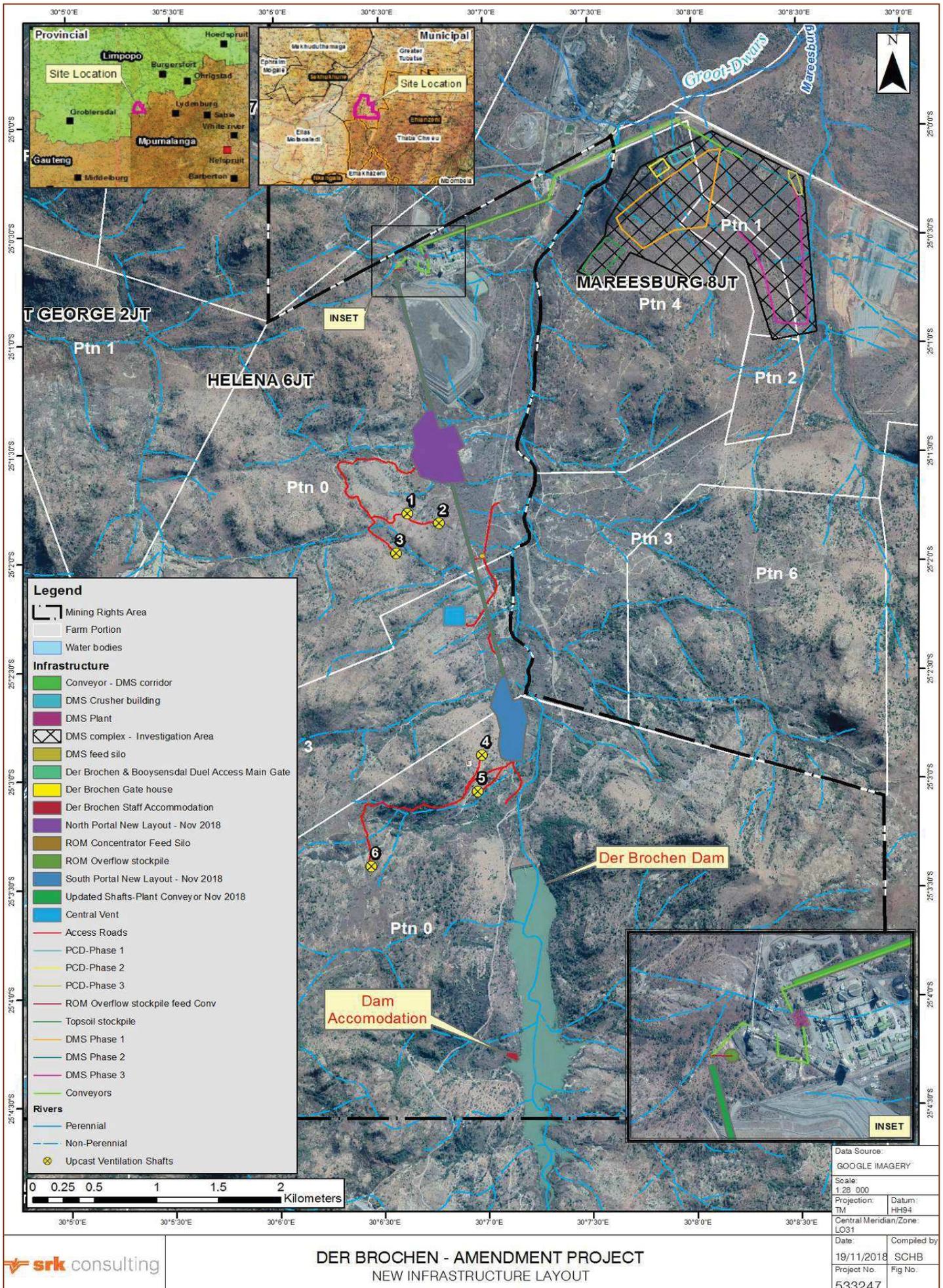
## Introduction

Moepo wa Der Brochen ke protšeke ya pholathinamo yeo mong wa yona e lego Rustenburg Platinum Mines Limited (RPM), khamphani ya ka fase yeo mong wa yona ka botlalo e lego Anglo American Platinum (AAP), gomme yona e dikhilometara tše 25 borwa bodikela bja toropo ya Steelpoort le dikhilometara tše 40 ka bodikela bja Mashishing (Lydenburg), ka Phrobentsheng ya Limpopo. Moepo wo o wela ka Masepaleng wa Selegae wa Fetakgomo Tubatse, ka fase ga bolaodi bja Masepala wa Selete wa Greater Sekhukhune.

Ke maikemišetšo a RPM go fetša Lenaneotaolo la Tikologo (EMPr) le Tumelelo ya Tikologo ye e Amegago (EA) gammogo le go mpshafatša Laesentshe ya bona ya Tšhomišo ya Meetse (WUL) go akaretša tše di latelago:

- Go agwa ga lebotlo la go thekga le lengwe ka Lefelong la bjale la Polokelo ya Mašaledi (TSF) gammogo le go agwa ga pholante ya tlaleletšo go sefa ka Pholanteng ya Methopo ya Enetši, ka fase ga maemo a tšhoganetšo, ka ge go dumeletšwe ke Kgoro ya Methopo ya Diminerale (DMR) ka Oktoboro 2017;
- Leano la taolo ya mobu wa ka godimo leo le fetšitšwego la Moepo wa Der Brochen;
- Go agwa le go sepediša lenaneokgoparara la moepo la tlaleletšo leo le amegago bjalo ka karolo ya leanotlhabollo la moepo:
  - Dišafte tše pedi tše diswa tše di bulegilego (Dišafte tša ka Leboa le tša ka Borwa) go fihlelela mafelo a maswa a ka fase a mešomo ya meepo ao a tlogo rafša ka go diriša mokgwa wa dikokwane tše di rapamego. RPM e ikemišeditše go hwetša šafte ya ka Leboa ka go motheo wo o dumeletšwego mo nakong ye e fetilego wa lefelo la ka Leboa la Moepo wo o Bulegilego, gomme šafte ya ka Borwa yona e tla hwetšwa ka go lefelo leo le dumeletšwego mo nakong ye e fetilego la ka lefelong la ka Borwa la Moepo wo o Bulegilego;
  - Dišafte tše tshela tša go tsenya moya ka go ya godimo (dišafte tše tharo tša go tsenya moya go ya ka dišafte tše diswa tše di bulegilego);
  - Lefelo la go tsenya moya la gare le tla tsenya moya ka go dišafte tše pedi tše di bulegilego;
  - Pholante ya go Aroganya Diminerale (DMS) ka lefelong la bjale la go Aroganya diminerale la Mototolo;
  - Lefelo la go bolokela dithoto le letamo leo le amegago la taolo ya tšhilafatšo;
  - Pholante ya tlaleletšo ya Koromo ka lefelong la bjale la go Aroganya Diminerale la Mototolo;
  - Tshepedišo ya tlaleletšo ya mekgobo le disilo;
  - Dintlo tša go aparela le lefelo la dikantoro leo le tlogo bewa ka go ye nngwe le ye

# Protšeke ya Phetošo ya Der Brochen



Seswantšho sa 1: Mmpepe wa lefelo la kgauswi la Protšeke ya Phetošo ya Der Brochen

## Naa Anglo American Platinum ke mang?

Anglo American Platinum Limited e ke motšweletši yo mogolo wa dimetale tša pholathinamo (di-PGM) lefaseng ka bophara go tšena e tsenya letsogo ka 40% ya pholathinamo ye e sa tšwago go rafša lefaseng ka bophara. Khamphani ye e ngwadišitšwe go JSE Limited gomme dikantorokgolo tša yona di ka Johannesburg, ka Afrika Borwa.

## Protšeke ya Phetošo ya Der Brochen



## Tshedimošo ya mathomong

Tokelo ya go rafa diminerale ya Moepo wa Der Brochen (Seswantšho sa 2) e wela diplaseng tše di latelago:

- Richmond 370 KT (Karolo ye e šetšego, dikarolo tša 1 le 2);
- St George 2 JT (Karolo ye e šetšego, dikarolo tša 1 le 2);
- Hermansdal 3 JT (Karolo ye e šetšego);
- Hebron 5 JT (Karolo ye e šetšego le karolo ya 1);
- Helena 6 JT (Karolo ye e šetšego le karolo ya 3); le
- Der Brochen 7 JT (Karolo ye e šetšego).

Godimo ga dipolasa tše go boletšwego ka tšona ka mo godimo, RPM e na gape le tokelo ya ka godimo ga mobu go Karolo ya 7 ya polasa ya Mareesburg 8 JT yeo go yona lefelo la polokelo la mašaledi (TSF) la Mareesburg), matamo ao a amegago a meetse ao a boetšwago (di-RWD) le phaephe ya meetse a mašaledi di lego gona. Se se bopa karolo ya mošomo wa Moepo wa Der Brochen.

Mešomo le mananeokgoparara ao a latelago a amana le Moepo wa Der Brochen, ka ge go dumeletšwe ka Mananeotaolo a Tikologo(di-EMP) le Dilaesentshe tša Bjale tša Tšhomišo ya Meetse (di-WUL):

### Mafelo le mešomo ya bjale:

- Lefelo la go Aroganya Diminerale la;
- Helena TSF le Matamo a Mabedi a go boetša Meetse (di-RWD) ao a amegago;
- Dikantoro tša moepo (ntlo ya polasa ya kgale) le ditsela tša go tšena;
- Mešomo ya tekodišišo ya kgonagalo ya moepo yeo e bopilwego ke go lokiša lefelo, go epa dipetse tša tekodišišo ya moepo, tsošološoleswa ya lefelo le tlhokomelo;
- Lefelo la teko ya moepo ka polaseng ya Richmond (mošomo wo o phethilwe, gomme mokgobo wa mobu le maswika a go lahlwa a boeditšwe mobung gabotse);
- Go ntšha meetse a ka fase ka nepo ya go thekga moepoi go tšwa ka mafelong a ditšha ao a nago le dilaesentshe a Helena le Richmond; le
- Go epa ka Letamong la Der brochen go latela kabelo ya semolao ya diintasteri ya bjale.



Seswantšho sa 2: Tokelo ya go Rafa ya Moepo wa Der Brochen

### Mešomo ye e dumeletšwego mo nakong ye e fetilego, eupša ye e sego ya hlwa e thomišwa:

- Mafelo a matsha a Helena le Richmond (ke fela dipetse tše pedi tšeo di dumeletšwego go ya ka letsha leo le šomišwago mo lebakeng le);
- Dišafte tša Helena le Richmond le mafelo a go lahlela maswika ao a lahlilwego;
- Melete ye Mebedi ya go Bulega (Melete ya ka Leboa le ka Borwa) le mafelo ao a amegago a go lahlela maswika a go lahlwa /dilahlwa tša go se nyakege le letamo la taolo ya tšhilafatšo;
- Go dira mathale a mohlagse leswa a 132 kV; le
- Lefelo la go Lahlela dilo (la go lahlela mašaledi leo le nago le mollwane wa masika ka moleteng wa ka leboa).

### Mešomo ye e dumeletšwego yeo e sa dirwago:

- Mareesburg TSF le Matamo a go Boetša Meetse (di-RWD);le
- Lenaneo la diphaephe tša go boetša a mašaledi a meetse la Mareesburg go leba ka pholanteng ya go aroganya diminerale ya Mototolo.

# Protšeke ya Phetošo ya Der Brochen



## Tumelelo ye e Kopantšwego go Tikologo

Pele ga ge RPM e ka thomiša ka go hloma ga mešomo ya meepo ya tlaleletšo ye e amegago, ditshepedišo tše di latelago tša ditumelelo go tikologo le phetošo ya laesentshe di swanetše go dirwa go latela melao ya bosetšhaba ya maleba:

- Tekodišišo le Tekolo ya Seabe go Tikologo (EIA) go latela Molao wa Bosetšhaba wa Taolo ya Tikologo (Molao wa Nomoro ya 107 wa 1998) (NEMA) le Molao wa Bosetšhaba wa Taolo ya Ditlakala tša Tikologo (Molao wa Nomoro ya 59 wa 2008) (NEM:WA). Lenaneo la Taolo ya Tikologo leo le fetoišitšwego (EMPr) la Moepo wa Der Brochen le tla fetoišwa go latela Molao wa Tlhabollo ya Methopo ya Diminerale le Phethroliamo (Molao wa Nomoro ya 28 wa 2002) (MPRDA). Tekodišišo, EIA le EMPr ye e fetoišitšwego di tla romelwa go Kgoro ya Methopo ya Diminerale ka Phrobentsheng ya Limpopo go dumelelwa; le
- Laesentshe ye e Kopantšwego ya Tšhomišo ya Meetse ye e mphafadišwego (IWUL) le Leano leo le Kopantšwego leo le sepelago le yona la Taolo ya Meetse le Ditlakala (IWWMP) ka fase ga Molao wa Bosetšhaba wa Meetse (Molao wa Nomoro ya 36 wa 1998) (NWA), go tla go romelwa le go dumelelwa ke Kgoro ya Meetse le Kelelatšhila (DWS).

RPM e thwetše SRK Consulting (ya Afrika Borwa) (SRK) bjalo ka Mošomi yo a ikemego wa Tshekatsheko ya Tikologo (EAP) go laola le go sepediša tumelelo ye e kopantšwego ya tikologo le tshepedišo ye e amegago ya go kgatha tema ga setšhaba go latela NEMA, NEM:WA, NWA and MPRDA.

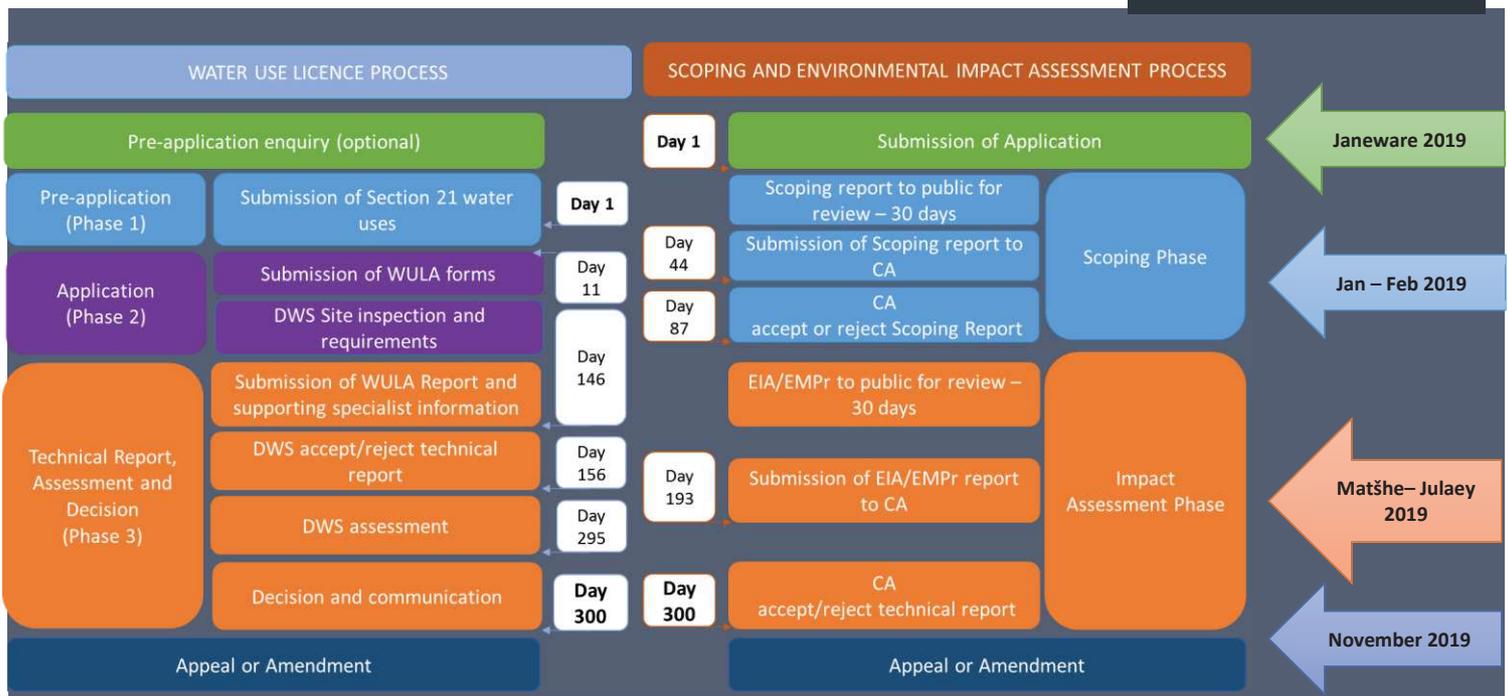
Tshepedišo ya tumelelo e tla dirwa mmogo ebile e nyaka go kgatha tema ga setšhaba. Ka fao, Tshepedišo e tee ye e kopantšwego ya go kgatha tema ga setšhaba e tla dirwa go obamela dinyakwa ka moka tša molao. Dinako tša tshepedišo ye e kopantšwego ya tumelelo go tikologo le Tshepedišo ya go kgatha tema ga setšhaba di laeditšwe ka mo fase.

### Nakong ya tekodišišo

Merero ya dinyakišišo ka nakong ya tshekatsheko ya seabe e a tsebja gomme mollwane wa dinyakišišo tša dtsebi wa hlalošwa. Tshedimošo ye e tla ngwalwa ka go Pego ya Tekodišišo yeo e tlogo hwetšagala gore setšhaba se fe ditshwaotshwao ka ga yona mo matšatšing a khalentara a 30. Ka morago ga gore setšhaba se fe ditshwaotshwao pego e tla mpshafatšwa go rarolla ditshwaotshwao dife goba dife gomme ka morago ga fao di tla romelwa DMR go yo dumelela.

### Nakong ya Tekolo ya Seabe go Tikologo

Diabe tše di kgonagalago di a tsebja gomme magato a taolo a šišinywa go fokotša diabe tše go se loke le go maatlafatša diabe tše kaone. EIA, go akaretšwa dipego ka moka tša ditsebi le EMPr ye e amegago le tšona di tla dirwa gore di hwetšagale mo matšatšing a 30 a khalentara, gomme tša fiwa ditshwaotshwao le go romelwa DMR gore go tšewe diheto





## MEŠOMO YA GO AMANA LE PROTŠEKE LE DITŠHOMIŠO TŠA MEETSE

Kakaretšo ya mešomo ye e kgonagalago le ditšhomišo tša meetse, yeo e amanago le protšeke ya koketšo, yeo e tlogo phethagatšwa go latela melao ya ka mo godimo e fiwa ka mo fase:

### DITSEBI

Dinyakišišo tše di tlogo dirwa bjalo ka karolo ya EIA:

- Boleng bja Moya;
- Phedišano ya Diphedi (tša ka Meetseng le Ecolotši ya therestiale);
- Meetse a ka fase;
- Bohwa le Dilo tša kgale;
- Lešata le mororomelo;
- Mabu, Tšhomišo ya naga le Bokgoni bja Naga;
- Meetse a ka godimo ga mobu;
- Sephethephethe;
- Tša go bonwa;
- Tsošološo le go Tswalela.

Tumelelo ya Tikologo ka NEMA – Tekodišišo le Tshepedišo ya EIA	
Tsebišo ya lenaneo ya 1 (GN R 983) Tiro le tlhalošo:	Tsebišo ya lenaneo ya 2 (GN R 984) Tiro le tlhalošo:
<p><b>10</b> Go agwa le go sepediša lenaneokgoparara leol e fetago dimetara tše 1 000 ka botelele la go sepetša soretshe ye ntši, diela tša ditšhila, la go šoma meetse, meetse a ditšhila, meetse a go boetšwa, diela tša diintasteri goba diselaeme.</p> <p><b>11</b> Go agwa ga mefelo goba ga lenaneokgoparara la go sepediša le go phatlalatša mohlagase.</p> <p><b>12</b> Go agwa ga lenaneokgoparara leo le fetago disekweremetara tše 100 ka lefelong la meetse goba ka gare ga dimetara tše 32 tša lefelo la meetse, leo le etšwego go tloga mathokong a lefelo la meetse.</p> <p><b>14</b> Go agwa ga mafelo goba ga lenaneokgoparara la polokelo, goba la go bolokela le go swara ga diphahlo tše kotsi, leo le nako le mothamo wo o kopantšwego wa 80 m<sup>3</sup> eupša wo o sa fetego 500 m<sup>3</sup>.</p> <p><b>19</b> Go tshela goba go lahlwa ga dilo dife goba dife tša go feta 10 m<sup>3</sup> go ya ka go, goba go alola, go epolla, go tloša goba go sepetša mobu, santa, dišele, keriti ya šele, maswikana goba maswika a go feta 10 m<sup>3</sup> go tšwa lefelong la meetse.</p> <p><b>24</b> Go agwa ga tsela yeo e nago le mathoko a go feta dimetara tše 13.5 m, goba fao go se nago le mathoko fao tsela e lego bophara bja dimetara tše 8.</p> <p><b>30</b> Tshepedišo efe goba efe goba tiragalo ye e bonwego go latela karolo ya 53(1) ya Molao wa Bosetšhaba wa Tikologo ya Diphedi, wa 2004 (Molao wa Nomoro ya 10 wa 2004).</p> <p><b>56</b> Go dira bophara bja tsela ka dimetara tša go feta tše 6, goba go dira botelele bja tsela ka khilometara ya go feta e tee.</p>	<p><b>6</b> Go agwa ga mafelo goba ga mananeokgoparara a tshepedišo goba tiro efe goba efe ye e nyakago phemiti goba laesentshe go latela molao wa bosetšhaba goba wa phrobentshe wo o laologo go tšweletša goba go lokolla meši, tšhilafatšo goba diela tša ditšhila.</p> <p><b>11</b> Go agwa ga mafelo goba ga lenaneokgoparara la go fetišetša dikhubikimetara tše 50 000 goba ga meets a mantši ka letšatši, go tloga le go ya goba magareng ga (iii) mellwane ya meetseimpoundments.</p> <p><b>15</b> Go kgolwa ga lefelo la dihekthara tše 20 goba bontši bja mehlare ya tlhago.</p> <p><b>17</b> Tiro efe goba efe go akaretšwa go sepetša tiro yeo fao go nyakago tokelo ya moepo ka ge go ukangwe ka go karolo ya MPRDA.</p>
	Tsebišo ya lenaneo ya 3 (GN R 985)
	<p><b>2</b> Go agwa ga matamo.</p> <p><b>4</b> Go agwa ga tsela ya bophara bja dimetara tše 4 ya mathoko a ka fase ga dimetara tše 13.5.</p> <p><b>5</b> Go agwa ga mafelo a kamogelo ao go robalago batho ba ka fase ga ba 15 ka go ona.</p> <p><b>8</b> Go agwa le go sepediša mathale a ka fase ga mobu le ditimela tša mathale.</p> <p><b>10</b> Go agwa le go sepediša ga mafelo goba ga lenaneokgoparara la polokelo, goba la go bolokela le go swara diphahlo tše kotsi, fao polokelo yeo e nago le ditšhelo tša mothamo wa mohlakanelwa wa 30m<sup>3</sup> eupša wa go se fete 80m<sup>3</sup>.</p> <p><b>12</b> Go kgolwa ga lefelo la go feta 300m<sup>2</sup> goba go feta ga mehlare ya tlhago.</p>
NEM:WA – Laesentshe ya Taolo ya Ditlakala (Legoro la B (GN R 921) – ye e nyakago Tekodišišo le EIA)	NWA- Karolo ya 21 ya Laesentshe ya Tšhomišo ya Meetse
<p><b>10</b> Go agwa ga lefelo la tiro ya taolo ya ditlakala ka go Legoro la B la Šetulo ye (e sego e arogane le tirpo ya taolo ya ditlakala).</p> <p><b>11</b> Go agwa goba go agwa leswa ga lefelo la go lahlela ditlakala goba la mašaledi ao a bakilwego ke ditiro tše di nyakago tokelo ya moepo, tokelo ya go rafa goba tokelo ya tšweletšo go latela MPRDA.</p>	<p>(a) Go tšea meetse go tšwa mothopong wa meetse.</p> <p>(b) Go boloka meetse.</p> <p>(c) Go thibela goba go phamoša meetse ka lefelong la meetse.</p> <p>(d) Go lahlwa ga ditlakala goba ga meets ao a nago le ditlakala ka mokgwa wo o ka amago gampe mothopo wa meetse</p> <p>(e) Go fetša mariba, mabopo, methopo ya meetse goba sebopego sa lefelo la meetse.</p> <p>(f) Go tloša, go lokolla goba go lahla meetse ao a hweditšwego ka fase ga mobu ge e le gore go a hlokagala gore mošomo wo o tšwetšwe pele gabotse goba go boloka maphelo a batho.</p>

# Protšeke ya Phetošo ya Der Brochen

## NAA O KA KGATHA TEMA BJANG?

Tshepedišo ya go kgatha tema ga setšhaba, ye e dirwago bjalo ka karolo ya tshepedišo ya tumelelo go tikologo, e a dirwa go latela Melawana ya EIA ya NEMA ya 2014 (ka ge e fetošitšwe) yeo e fanago ka tlhahlo ye e kwešišegago ya gore bakgathatema ba rerišwe mabapi ka nakong ya tshepedišo ya tumelelo go tikologo.

Tshepedišo ye e fa bakgathatema sebaka sa go tsebišwa ka ga protšeke, go tliša ditshwaotshwao goba dipotšišo le go dita ditšhišinyo tša dikholego tše maatlafaditšwego tša protšeke. Ditsebi tša sethekniki le sehlopha sa protšeke ba tla sekaseka merero ya maleba le ditšhišinyo ka nakong ya tshepedišo ya EIA.

## Go kgatha tema ga setšhaba

O amogela sengwalwa se ka ge re go bone gore o ka ba motho yo a nago le kgahlego le yo a amegago (I&AP) ka mo protšekeng ye. Ge e le gore o nyaka go dula o le I&AP ka mo tshepedišong ye ya tumelelo, o laletšwa go ingwadiša bjalo ka mokgathatema (fomo ya ngwadišo e tsentšwe) le go fa ditshwaotshwao ka ga protšeke ye e šišintšwego le go hlagiša taba efe goba efe ye e go belaešago. Hle ikgokaganye gape le rena ge o ka nyaka tshedimošo ka botlalo ka ga Protšeke ye e šišintšwego ya Phetošo ya Der Brochen goba tshoedišo ya tumelelo go tikologo ye e amegago.

## Go hwetšagala ga Pego ya Tekodišišo gore Setšhaba se fe Ditshwaotshwao ka ga yona

Bjalo ka tshepedišo ye e kopantšwego ya tumelelo go tikologo ye e amanago le Protšeke ya Phetošo ya Der Brochen, Pego ya Tekodišišo ye e nyakegago bjale e a hwetšagala go lekodišišwa ke setšhaba le gore setšhaba se fe ditshwaotshwao ka ga yona. Pego ya tekodišišo e hlaloša mešomo ya go amana le protšeke ye e šišintšwego, dikgetho dife goba dife tše di ka kgonagalago le tše di kwagalago tše di bonwego go fihla mo lebakeng le, tlhalošo ya lefelo la thoto le tikologo yeo e ka amegago le ka fao dilo tša tlhago, tša setšhaba, tša ekonomi le tša setšo tša tikologo di ka angwago ka gona ke protšeke ye e šišintšwego. Pego ya Tekodišišo le yona e akaretša Leano la Dinyakišišo la EIA (kgato ye e latelago), ye e fago mokgwa wo o swanetšego go šomišwa go fihlelela diabe tve di ka kgonagalago, le dinyakišišo tša ditsebi tše di nyakegago.

**Pego ya Tekodišišo e a hwetšagala go lekodišišwa le go fiwa ditshwaotshwao ke setšhaba mo lebakeng la matšatši a khalentara a masometharo (30) go tloga ka Mošupologo wa la 25 Janeware 2019 go fihla ka Labone la 25 Feberware 2019.**

Pego ya Tekodišišo e tla hwetšagala ka fomete ya PDF wepsaetengh ya SRK (<https://www.srk.co.za/en/library/za-public-documents>), le mafelong a setšhaba ao a latelago:

### Mafelo a setšhaba fao Pego ya Tekodišišo e tla bewago gona

Lefelo la Setšhaba	Lefelo	Nomoro ya mogala
Bokgobapuku bja Setšhaba bja Mapodile/Eerstegeluk	735 Kgahlanong Street, Mapodile	013 237 0039
Bokgobapuku bja Setšhaba bja Burgersfort	Cnr Kort & Eddie Sedibe Str, Burgersfort	013 231 7815
Dikantoorng tša Kalkfontein CPA	Kalkfontein (Nokaneng)	Nomoro ya mogala ga e gona
Kantorong ya Thraste ya Setšhaba ya Pakaneng	Schaapkraal Farm	Nomoro ya mogala ga e gona
Senthareng ya Setšhaba ya Gamawela	St George Farm	Nomoro ya mogala ga e gona

Bakgathatema ka moka ba hlohleletšwa go fa ditshwaotshwao ka ga Pego ya Tekodišišo pele la Labone la **25 Feberware 2019** le dikela, ka ge ditshwaotshwao tša gago le ditšhišinyo ka ga taba efe goba efe di tla thuša ba taolko go tšea dipheo ba na le tsebo.

### IKGOKAGANYE LE RENA

Ge o ka ba le dipotšišo dife goba dife, o nyaka tshedimošo ka botlalo, goba o nyaka go tliša dingongorego goba ditšhišinyo, o kgopelwa go ikgokaganya le Kantororo ya Ditherišano le Bakgathatema ya SRK

**Mohumagadi Aphiwe-Zona Dotwana**  
Stakeholder Engagement Office  
SRK Consulting, P. O. Box 55291, Northlands, 2116  
**Mogala:** (011) 441 6105  
**Fekese:** 086 503 6825  
**Emeile:** [adotwana@srk.co.za](mailto:adotwana@srk.co.za)  


## **Appendix 5-2: Advertisements and site notices**

**INTEGRATED ENVIRONMENTAL AUTHORISATION PROCESS FOR ANGLO AMERICAN PLATINUM RUSTENBURG PLATINUM MINES LIMITED's DER BROCHEN MINE AMENDMENT PROJECT, LIMPOPO PROVINCE**

**INVITATION TO REGISTER AS INTERESTED AND AFFECTED PARTY AND ANNOUNCEMENT OF AVAILABILITY OF SCOPING REPORT FOR REVIEW**

The Der Brochen Mine is a platinum project owned by Rustenburg Platinum Mines Limited (RPM), a wholly owned subsidiary of Anglo American Platinum (AAP), and is located approximately 25 km south-west of the town of Steelpoort and 40 km west of Mashishing (Lydenburg), in the Limpopo Province. The mine falls within the Fetakgomo Tubatse Local Municipality, under jurisdiction of the Greater Sekhukhune District Municipality.

It is the intention of RPM to amend the Der Brochen Mine's approved Environmental Management Programme (EMPr) and associated Environmental Authorisation (EA) together with updating their existing Water Use Licence (WUL) to include the following:

- The development of a buttress wall at the existing Helena Tailing Storage Facility (TSF) under emergency circumstances, as well as the development of an additional filter press plant at the existing Mototolo Concentrator Plant, as agreed by the Department of Mineral Resources (DMR) in October 2017;
- The updated topsoil management plan of the Der Brochen Mine;
- The development and operation of the following additional mining related infrastructure as part of the mine's development strategy:
  - Two new decline shafts (North and South shafts) to access new underground mining operation areas to be mined through the bord-and-pillar mining method. RPM intends to locate the North decline shaft within the previously approved footprint of the North Open Pit area, and the South decline shaft within the previously approved South Open Pit area;
  - Six up-cast ventilation shafts (three ventilation shafts per new decline shafts);
  - A central ventilation area will service both proposed decline shafts;
  - A Dense Medium Separation (DMS) Plant within the existing Mototolo Concentrator area;
  - A DMS Stockpile area and associated pollution control dam;
  - An additional Chrome Plant within the existing Mototolo Concentrator area;
  - Additional Run of Mine stockpiles and silos;
  - Change houses and office complex to be located at each of the decline shafts;
  - An explosive destruction bay area to be located near the proposed South decline shaft;
  - Additional linear infrastructure, i.e. conveyor systems, access and haul roads; and
  - Staff accommodation facilities to be located near the Der Brochen Dam.

The proposed infrastructure and mining related activities will be located on the farms Der Brochen 7 JT (Remaining Extent), Helena 6 JT (Portion 3 and the Remaining Extent) and Mareesburg 8 JT (Portions 1 and 7). Majority of these farms and farm portions fall within the mining and surface rights area of the Der Brochen Mine.

Before RPM may commence with the development of the additional mining related activities, the following environmental authorisations and licence amendment need to be undertaken in accordance with the relevant national legislation:

- A Scoping and Environmental Impact Assessment (EIA) in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA) including an amended Environmental Management Programme (EMPr) in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA), for submission and approval from the Limpopo Province's DMR; and
- An updated Integrated Water Use Licence (IWUL) and accompanying Integrated Water and Waste Management Plan (IWWMP) under the National Water Act (Act No. 36 of 1998) (NWA), for submission and approval from the Department of Water and Sanitation (DWS).

RPM appointed SRK Consulting (South Africa) (SRK) as the independent Environmental Assessment Practitioner (EAP) to undertake the integrated environmental authorisation and associated public participation process for the above mentioned applications and amendments.

Interested and Affected Parties (I&APs) are invited to register and comment on the Scoping Report that is available for public comment for a period of 30 calendar days from **25 January 2019 to 25 February 2019**. The Scoping Report will be made available on the SRK website: <http://www.srk.co.za> and at the following public places during the review period:

Public Place	Locality	Tel No
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Burgersfort Public Library	Cnr Kort & Eddie Sedibe Str, Burgersfort	013 231 7815
Kalkfontein CPA offices	Kalkfontein (Nokaneng)	No Landline
Pakaneng Community Trust Office	Schaapkraal Farm	No Landline
Gamawela Community Centre	St George Farm	No Landline

Due date for comments on the Scoping Report is **25 February 2019**. For more information, kindly contact:

**Ms Aphiwe-Zona Dotwana**  
Stakeholder Engagement Office  
SRK Consulting, P. O. Box 55291, Northlands, 2116  
Tel: (011) 441 6105  
Fax: 086 503 6825  
E-mail: [adotwana@srk.co.za](mailto:adotwana@srk.co.za)  


**TSHEPEDIŠO YE E KOPANTŠWEGO YA TUMELELO GO TIKOLOGO YA ANGLO AMERICAN PLATINUM – PROTŠEKE YA PHETOŠO YA MOEPO WA DER BROCHEN WA RUSTENBURG PLATINUM MINES LIMITED, KA PHROBENTSHENG YA LIMPOPO**

**TALETŠO YA GO INGWADIŠA BJALO KA MOTHO YO A NAGO LE KGALHEGO LE YO A AMEGAGO LE TSEBAGATŠO YA GO HWETŠAGALA GA PEGO YA TEKODIŠIŠO YA GO LEBELELWA KE SETŠHABA**

Moepo wa Der Brochen ke protšeke ya pholathinamo yeo mong wa yona e lego Rustenburg Platinum Mines Limited (RPM), khamphani ya ka fase yeo mong wa yona ka botlalo e lego Anglo American Platinum (AAP), gomme yona e dikhilometara tše 25 borwa bodikela bja toropo ya Steelpoort le dikhilometara tše 40 ka bodikela bja Mashishing (Lydenburg), ka Phrobentsheng ya Limpopo. Moepo wo o wela ka Masepaleng wa Selegae wa Fetakgomo Tubatse, ka fase ga bolaodi bja Masepala wa Selete wa Greater Sekhukhune.

Ke maikemišetšo a RPM go fetoša Lenaneotaolo la Tikologo (EMPr) le Tumelelo ya Tikologo ye e Amegago (EA) gammogo le go mpshafatša Laesentshe ya bona ya Tšhomišo ya Meetse (WUL) go akaretša tše di latelago:

- Go agwa ga lebotlo la go thekga le lengwe ka Lefelong la bjale la Polokelo ya Mašaledi (TSF) gammogo le go agwa ga pholante ya tlaleletšo go sefa ka Pholanteng ya Methopo ya Enetši, ka fase ga maemo a tšhoganetšo, ka ge go dumeletšwe ke Kgoro ya Methopo ya Diminerale (DMR) ka Oktoboro 2017;
- Leano la taolo ya mobu wa ka godimo leo le fetošitšwego la Moepo wa Der Brochen;
- Go agwa le go sepediša lenaneokgoparara la moepo la tlaleletšo leo le amegago bjalo ka karolo ya leanotlhabollo la moepo:
  - Dišafte tše pedi tše diswa tše di bulegilego (Dišafte tša ka Leboa le tša ka Borwa) go fihlelela mafelo a maswa a ka fase a mešomo ya meepo ao a tlogo rafša ka go diriša mokgwa wa dikokwane tše di rapamego. RPM e ikemišeditše go hwetša šafte ya ka Leboa ka go motheo wo o dumeletšwego mo nakong ye e fetilego wa lefelo la ka Leboa la Moepo wo o Bulegilego, gomme šafte ya ka Borwa yona e tla hwetšwa ka go lefelo leo le dumeletšwego mo nakong ye e fetilego la ka lefelong la ka Borwa la Moepo wo o Bulegilego;
  - Dišafte tše tshela tša go tsenya moya ka go ya godimo (dišafte tše tharo tša go tsenya moya go ya ka dišafte tše diswa tše di bulegilego);
  - Lefelo la go tsenya moya la gare le tla tsenya moya ka go dišafte tše pedi tše di bulegilego;
  - Pholante ya go Aroganya Diminerale (DMS) ka lefelong la bjale la go Aroganya diminerale la Mototolo;
  - Lefelo la go bolokela dithoto le letamo leo le amegago la taolo ya tšhilafatšo;
  - Pholante ya tlaleletšo ya Koromo ka lefelong la bjale la go Aroganya Diminerale la Mototolo;
  - Tšhepedišo ya tlaleletšo ya mekgobo le disilo;
  - Dintlo tša go aparela le lefelo la dikantoro leo le tlogo bewa ka go ye nngwe le ye nngwe ya dišafte tše di bulegilego;
  - Lefelo la go senya dithuthupi leo le tlogo bewa ka šafteng ye e šišintšwego ya ka Borwa;
  - Lenaneokgoparara la ka fase la tlaleletšo, ke gore, mananeo a tšhepedišo, ditsela tša go tsena le tša go rwala; le
  - Mafelo fao go dulago bašomi ao a tlogo bewa kgausi le Letamo la Der Brochen.

Mešomo ye e šišintšwego ya lenaneokgoparara leo le amanago le moepo le tla ba ka dipolaseng tša Der Brochen 7 JT (Karolo ye e Šetšego), Helena 6 JT (Karolo ya 3 le Karolo ye e Šetšego) le Mareesburg 8 JT (Dikarolo tša 1 le 7). Bontši bja dipolasa tše le dikarolo tša dipolasa di wela ka go lekala la ditokelo tša meepo le tša dipolasa tša Moepo wa Der Brochen.

Pele ga ge RPM e ka thomiša ka go hloma ga mešomo ya meepo ya tlaleletšo ye e amegago, ditshepedišo tše di latelago tša ditumelago go tikologo le phetošo ya laesentshe di swanetše go dirwa go latela melao ya bosetšhaba ya maleba:

- Tekodišišo le Tekolo ya Seabe go Tikologo (EIA) go latela Molao wa Bosetšhaba wa Taolo ya Tikologo (Molao wa Nomoro ya 107 wa 1998) (NEMA) le Molao wa Bosetšhaba wa Taolo ya Ditlakala tša Tikologo (Molao wa Nomoro ya 59 wa 2008) (NEM:WA) go akaretšwa Lenaneo la Taolo ya Tikologo leo le fetošitšwego (EMPr) go latela Molao wa Tlhabollo ya Methopo ya Diminerale le Phetholiamo (Molao wa Nomoro ya 28 wa 2002) (MPRDA), go tla go romelwa le go dumelelwa ke Kgoro ya Methopo ya Diminerale ya ka Limpopo; le
- Laesentshe ye e Kopantšwego ya Tšhomišo ya Meetse ye e mphafaditšwego (IWUL) le Leano leo le Kopantšwego leo le sepelago le yona la Taolo ya Meetse le Ditlakala (IWWMP) ka fase ga Molao wa Bosetšhaba wa Meetse (Molao wa Nomoro ya 36 wa 1998) (NWA), go tla go romelwa le go dumelelwa ke Kgoro ya Meetse le Kelelatšhila (DWS).

RPM e hwetše SRK Consulting (ya Afrika Borwa) (SRK) bjalo ka Mošomi yo a ikemego wa Tšhekatshoko ya Tikologo (EAP) go sepediša tumelelo ye e kopantšwego ya tikologo le tšhepedišo ye e amegago ya go kgatha tema ga setšhaba go latela ditirishi le diphešo tše go boletšwego ka tšona ka mo godimo.

Batho bao ba nago le Kgahlego le bao ba Amegago (DI-I&AP) ba laletšwa go ingwadiša le go fa ditshwaotshwao ka ga Pego ya Tekodišišo ye e hwetšagalago go fiwa ditshwaotshwao ke setšhaba mo lebakeng la matšatši a khalentara a 30 go tloga ka la **25 Janeware 2019 go fihla ka la 25 Feberware 2019**. Pego ya Tekodišišo e tla hwetšagalaga wepsaeteng ya SRK: <http://www.srk.co.za> le mafelong a setšhaba ao a latelago ka nakong ya tekodišišo:

Lefelo la Setšhaba	Lefelo	Nomoro ya Mogala
Bokgobapuku bja Setšhaba bja Mapodile/Eerstegeluk	735 Kgahlanong Street, Mapodile	013 237 0039
Bokgobapuku bja Setšhaba bja Burgersfort	Cnr Kort & Eddie Sedibe Str, Burgersfort	013 231 7815
Dikantorong tša Kalkfontein CPA	Kalkfontein (Nokaneng)	Nomoro ya mogala ga e gona
Kantorong ya Thraste ya Setšhaba sa Pakaneng	Schaapkraal Farm	Nomoro ya mogala ga e gona
Senthareng ya setšhaba ya Gamawela	St George Farm	Nomoro ya mogala ga e gona

Letšatšikgwedi la mafelole la go ronmela ditshwaotshwao ka ga Pego ya Tekodišišo ke la **25 Feberware 2019**. Go hwetša tshedimošo ka botlalo, hle ikgokaganye le:

**Mohumagadi Aphiwe-Zona Dotwana**  
 Kantoro ya Ditherišano le Bakgathatema  
 SRK Consulting, P. O. Box 55291, Northlands, 2116  
**Mogala:** (011) 441 6105  
**Fekese:** 086 503 6825  
**Emeile:** [adotwana@srk.co.za](mailto:adotwana@srk.co.za)  


# Kennisgewings/Notices

## INTEGRATED ENVIRONMENTAL AUTHORISATION PROCESS FOR ANGLO AMERICAN PLATINUM RUSTENBURG PLATINUM MINES LIMITED'S DER BROCHEN MINE AMENDMENT PROJECT, LIMPOPO PROVINCE

### INVITATION TO REGISTER AS INTERESTED AND AFFECTED PARTY AND ANNOUNCEMENT OF AVAILABILITY OF SCOPING REPORT FOR REVIEW

The Der Brochen Mine is a platinum project owned by Rustenburg Platinum Mines Limited (RPM), a wholly owned subsidiary of Anglo American Platinum (AAP), and is located approximately 25 km south-west of the town of Steelpoort and 40 km west of Mashishing (Lydenburg), in the Limpopo Province. The mine falls within the Fetakgomo Tubatse Local Municipality, under jurisdiction of the Greater Sekhukhune District Municipality.

It is the intention of RPM to amend the Der Brochen Mine's approved Environmental Management Programme (EMPr) and associated Environmental Authorisation (EA) together with updating their existing Water Use Licence (WUL) to include the following:

- The development of a buttress wall at the existing Helena Tailing Storage Facility (TSF) under emergency circumstances, as well as the development of an additional filter press plant at the existing Mototolo Concentrator Plant, as agreed by the Department of Mineral Resources (DMR) in October 2017;
- The updated topsoil management plan of the Der Brochen Mine;
- The development and operation of the following additional mining related infrastructure as part of the mine's development strategy:
  - Two new decline shafts (North and South shafts) to access new underground mining operation areas to be mined through the bord-and-pillar mining method. RPM intends to locate the North decline shaft within the previously approved footprint of the North Open Pit area, and the South decline shaft within the previously approved South Open Pit area;
  - Six up-cast ventilation shafts (three ventilation shafts per new decline shafts);
  - A central ventilation area will service both proposed decline shafts;
  - A Dense Medium Separation (DMS) Plant within the existing Mototolo Concentrator area;
  - A DMS Stockpile area and associated pollution control dam;
  - An additional Chrome Plant within the existing Mototolo Concentrator area;
  - Additional Run of Mine stockpiles and silos;
  - Change houses and office complex to be located at each of the decline shafts;
  - An explosive destruction bay area to be located near the proposed South decline shaft;
  - Additional linear infrastructure, i.e. conveyor systems, access and haul roads; and
  - Staff accommodation facilities to be located near the Der Brochen Dam.

The proposed infrastructure and mining related activities will be located on the farms Der Brochen 7 JT (Remaining Extent), Helena 6 JT (Portion 3 and the Remaining Extent) and Maresburg 8 JT (Portions 1 and 7). Majority of these farms and farm portions fall within the mining and surface rights area of the Der Brochen Mine.

Before RPM may commence with the development of the additional mining related activities, the following environmental authorisations and licence amendment need to be undertaken in accordance with the relevant national legislation:

- A Scoping and Environmental Impact Assessment (EIA) in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA) including an amended Environmental Management Programme (EMPr) in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA), for submission and approval from the Limpopo Province's DMR; and
- An updated Integrated Water Use Licence (IWUL) and accompanying Integrated Water and Waste Management Plan (IWWMP) under the National Water Act (Act No. 36 of 1998) (NWA), for submission and approval from the Department of Water and Sanitation (DWS).

RPM appointed SRK Consulting (South Africa) (SRK) as the independent Environmental Assessment Practitioner (EAP) to undertake the integrated environmental authorisation and associated public participation process for the above mentioned applications and amendments.

Interested and Affected Parties (I&APs) are invited to register and comment on the Scoping Report that is available for public comment for a period of 30 calendar days from **25 January 2019 to 25 February 2019**. The Scoping Report will be made available on the SRK website: <http://www.srk.co.za> and at the following public places during the review period:

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Pakaneng Community Trust Office	Schaapkraal Farm	
Gamawela Community Centre	St George Farm	

Due date for comments on the Scoping Report is **25 February 2019**. For more information, kindly contact:

**Ms Aphwe-Zona Dotwana**  
Stakeholder Engagement Office  
SRK Consulting, P. O. Box 55291, Northlands, 2116  
Tel: (011) 441 6105  
Fax: 086 503 6825  
E-mail: [adotwana@srk.co.za](mailto:adotwana@srk.co.za)



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– Henry Ford

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# Kennisgewings/ Notices

## NOTICE OF A SCOPING & ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND A PUBLIC MEETING

Notice is hereby given of a Public Participation Process, specifically a Public Meeting to be held, as required in terms of the provisions contained in inter alia the Environmental Impact Assessment (EIA) Regulations, GNR 982 of 04 December 2014 (as amended 07 April 2017) published in terms of the National Environmental Management Act, (Act No 107 of 1998) as it relates to an Application for Environmental Authorisation(s) to which a Scoping and Environmental Impact Reporting (S&EIR) Process has to be applied.

Environmental Authorization(s) in terms of the provisions of the National Environmental Management Act (NEMA), the National Environmental Management: Waste Act (NEMWA) as well as the National Water Act (NWA) will be required for the proposed activities.

Based on the nature of the proposed activities, the necessary applications have to be supported inter alia by a S&EIR Process as defined in Regulation 21, 22, 23 and 24 of the EIA Regulations, 2014 - GNR 982 of 04 December 2014 (as amended).

In terms of the Public Participation Process, the following topics will be discussed during the Public Meeting:

- The Legal Environmental Authorisation Requirements relevant to the project;
- The Draft Scoping Report;
- The way forward in the S&EIR Process.

**Applicant:** Glencore Operations South Africa (Pty) Ltd – Lion Smelter

**Process Description:** Glencore Operations South Africa (Pty) Ltd – Lion Smelter wishes to add and/or upgrade Water and Waste Management activities at the Lion Smelter Plant.

These proposed activities require Environmental Authorisation (EA) in terms of the provisions of the National Environmental Management Act (NEMA, Act No. 107 of 1998), the National Environmental Management: Waste Act (NEMWA, Act No. 59 of 2008) as well as the National Water Act (NWA, Act No. 36 of 1998).

In this regard, the NEMA Application for an EA will be made to the Limpopo Department of Economic Development, Environment and Tourism (LEDET) as the Competent Authority (CA), a NEMWA Application for a Waste Management Licence (WML) to the Department of Environmental Affairs (DEA) as the CA and an Integrated Water Use Licence Application to the Department of Water and Sanitation (DWS) as the CA.

**Project Location:** The Lion Smelter site falls within the Fetakgomo – Greater Tubatse Local Municipality (FGTM) which is located within the Greater Sekhukhune District Municipality of the Limpopo Province.

**Consultant:** Rene Wolmarans, JMA Consulting (Pty) Ltd Tel: (013) 665 1788 Fax: (013) 665 2364 Email: [rene@jmaconsult.co.za](mailto:rene@jmaconsult.co.za) Postal: P.O. Box 883, Delmas, 2210

**Date of Publication:** 10/11 January 2019

**Public Participation:** In accordance with the EIA Regulations (2014) as amended, you are hereby then cordially invited to attend the Public Meeting scheduled for 10:00 on 16 January 2019 at the Lion Smelter Plant (at the Bus Terminal next to the Training Centre).

In order to ensure that you are identified and registered as an Interested and Affected Party (I&AP) please submit your name, contact information and interest in the matter, in writing, to the consultant, Me Rene Wolmarans as given above by means of fax, e-mail or post.

If any further information is required please do not hesitate to contact us.

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# Limpopo DA not impressed with matric results



Stan Mathabatha and Zion Christian Church (ZCC) leader, Bishop Barnabas Lekganyane award Limpopo top learner Anza Tshipetane from Mbilwi Secondary.

## POLOKWANE

The Democratic Alliance (DA) in Limpopo said they are concerned by the province's continued poor performance in the National Senior Certificate (NSC) results.

Although the province increased its NSC pass rate from 65,6% last year to 69,4% this year, it regressed from 8th to 9th place and was the worst performing province in the country.

It was also the only province to have less than a 70% pass rate despite the upward adjustment of marks in a number of subjects.

"To further compound this poor performance is the fact that only 76 730 learners (75,9%) of the 101017 learners who started

the 2018 academic year in grade 12 wrote the matric exams.

"There were 23998 progressed learners in 2018 and this is a sign of unacceptably high number of learners that have been let down by the department and were not offered enough additional support.

"The sad reality is that only 53 254 learners of the 101 017 learners that started the year in matric passed their matric exams and this essentially means the real pass rate of the 2018 class is 52%," said DA's Jacques Smalle.

He added, "It is unacceptable that only 76 730 learners (41,7%) of the 184028 learners who enrolled for grade 10 in 2016 wrote the matric exams.

Only 53254 learners of that 2016 group passed the NSC exams and this points to a real pass rate of 28,9%."

Smalle reiterated that the province's education department has been a constant under performer year after year under Education MEC Ishmael Kgetjpe in comparison to the other provinces and is setting up Limpopo learners for failure in the future.

"If Premier Stan Mathabatha is serious about improving the quality of education and the chances of learners receiving a tertiary education he must hold the department accountable and ensure there is a functional monitoring and evaluation system that prioritises the quality of education offered

## TSHEPEDIŠO YE E KOPANTŠWEGO YA TUMELELO GO TIKOLOGO YA ANGLO AMERICAN PLATINUM – PROTŠEKE YA PHETOŠO YA MOEPO WA DER BROCHEN WA RUSTENBURG PLATINUM MINES LIMITED, KA PHROBENTSHENG YA LIMPOPO

### TALETŠO YA GO INGWADIŠA BJALO KA MOTHO YO A NAGO LE KGAGLEGO LE YO A AMEGAGO LE TSEBAGATŠO YA GO HWETŠAGALA GA PEGO YA TEKODIŠIŠO YA GO LEBELELWA KE SETŠHABA

Moepo wa Der Brochen ke protšeke ya pholatinamo yeo mong wa yona e lego Rustenburg Platinum Mines Limited (RPM), khamphani ya ka fase yeo mong wa yona ka botlalo e lego Anglo American Platinum (AAP), gomme yona e dikilometara tše 25 borwa bodikela bja toropo ya Steelpoort le dikilometara tše 40 ka bodikela bja Mashishing (Lydenburg), ka Phrobentsheng ya Limpopo. Moepo wo o wela ka Masepaleng wa Selegae wa Fetakgomo Tubatse, ka fase ga bolodi bja Masepala wa Selete wa Greater Sekhukhune.

Ke maikemišetšo a RPM go fetoša Lenaneotaolo ya Tikologo (EMPr) le Tumelelo ya Tikologo ye e Amegago (EA) gammogo le go mphafatša Laesentshe ya bona ya Tšhomišo ya Meetse (WUL) go akaretša tše di latelago:

- Go agwa ga lebotlo la go thekga le lengwe ka Lefeleng la bjale la Polokelo ya Mašaleidi (TSF) gammogo le go agwa ga pholante ya tšhomišo go sefa ka Pholanteng ya Methopo ya Enetsi, ka fase ga maemo a tšhoganetšo, ka ge go dumeletšwe ke Kgoro ya Methopo ya Diminerale (DMR) ka Oktoboro 2017;
- Leano la taolo ya mobu wa ka godimo leo le fetošitšwego la Moepo wa Der Brochen;
- Go agwa le go sepediša lenaneokoparara la moepo la tšhomišo leo le amegago bjalo ka karolo ya leanothabollo la moepo:
  - Dišafite tše pedi tše diswa tše di bulegilego (Dišafite tša ka Leboa le tša ka Borwa) go fihlelela mafelo a maswa a ka fase a mešomo ya meepo ao a tlogo rašša ka go diriša mokgwa wa dikowane tše di rapamego. RPM e ikemišetšitše go hwetša šafite ya ka Leboa ka go motheo wo o dumeletšwego mo nakong ye e fetilego wa lefelo la ka Leboa la Moepo wo o Bulegilego, gomme šafite ya ka Borwa yona e tša hwetšwa ka go lefelo leo le dumeletšwego mo nakong ye e fetilego la ka lefelong la ka Borwa la Moepo wo o Bulegilego;
  - Dišafite tše tšhela tša go tšenywa moya ka go ya godimo (dišafite tše tharo tša go tšenywa moya go ya ka dišafite tše diswa tše di bulegilego);
  - Lefelo la go tšenywa moya la gare le tša tšenywa moya ka go dišafite tše pedi tše di bulegilego;
  - Pholante ya go Aroganya Diminerale (DMS) ka lefelong la bjale la go Aroganya Diminerale la Mototolo;
  - Lefelo la go bolokela dithoto le letamo leo le amegago la taolo ya tšhilafatšo;
  - Pholante ya tšhomišo ya Koromo ka lefelong la bjale la go Aroganya Diminerale la Mototolo;
  - Tshepedišo ya tšhomišo ya mekgobo le disilo;
  - Dintlo tša go aparala le lefelo la dikantoro leo le tlogo bewa ka go ye nngwe le ye nngwe ya dišafite tše di bulegilego;
  - Lefelo la go senya dithuthupi leo le tlogo bewa ka safteng ye e šišitšwego ya ka Bonwa;
  - Lenaneokoparara la ka fase la tšhomišo, ke gore, mananeo a tšhepedišo, ditšela tša go tšenywa moya go ya rwa; le
  - Mafelo fao go dilago bašomi ao a tlogo bewa kgausi le letamo la Der Brochen.

Mešomo ye e šišitšwego ya lenaneokoparara leo le amanago le moepo le tša ba ka dipolanseng tša Der Brochen 7 JT (Karolo ye e Setšego), Helena 6 JT (Karolo ya 3 le Karolo ye e Setšego) le Mareesburg 8 JT (Dikarolo tša 1 le 7). Bontši bja dipolansa tše le dikarolo tša dipolansa di wela ka go lekala la ditokelo tša meepo le tša dipolansa tša Moepo wa Der Brochen.

Pele ga ge RPM e ka thomiša ka go hloma ga mešomo ya meepo ya tšhomišo ye e amegago, ditshepedišo tše di latelago tša ditumelelo go tikologo le phešo ya laesentshe di swanetše go dirwa go latela melao ya bosesetšhaba ya maleba:

- Tekodišišo le Tekolo ya Seabe go Tikologo (EIA) go latela Molao wa Bosesetšhaba wa Taolo ya Tikologo (Molao wa Nomoro ya 107 wa 1998) (NEMA) le Molao wa Bosesetšhaba wa Taolo ya Ditlakala tša Tikologo (Molao wa Nomoro ya 59 wa 2008) (NEM:WA) go akaretšwa Lenaneo la Taolo ya Tikologo leo le fetošitšwego (EMPr) go latela Molao wa Tšhomišo ya Methopo ya Diminerale le Phetholiamo (Molao wa Nomoro ya 28 wa 2002) (MPRDA), go tša go romelwa le go dumelelwa ke Kgoro ya Methopo ya Diminerale ya ka Limpopo; le
- Laesentshe ye e Kopantšwego ya Tšhomišo ya Meetse ye e mphafaditšwego (IWUL) le Leano leo le Kopantšwego leo le sepelelo le yona la Taolo ya Meetse le Ditlakala (IWWMP) ka fase ga Molao wa Bosesetšhaba wa Meetse (Molao wa Nomoro ya 36 wa 1998) (NWA), go tša go romelwa le go dumelelwa ke Kgoro ya Meetse le Kelelatšhila (DWS).

RPM e hwetše SRK Consulting (ya Afrika Borwa) (SRK) bjalo ka Mošomi yo a ikemega wa Tshekatsheko ya Tikologo (EAP) go sepediša tumelelo ye e kopantšwego ya tikologo le tšhepedišo ye e amegago ya go kgatha tema ga setšhaba go latela ditiriso le diphešo tše go boletšwego ka tšona ka mo godimo.

Batho bao ba nago le Kgahlego le ba ba Amegago (DI-I&AP) ba laletšwa go ingwadiša le go fa ditshwaotshwao ka ga Pego ya Tekodišišo ye e hwetšagalago go fiwa ditshwaotshwao ke setšhaba mo lebakeng la matsiša a khalantara a 30 go tloga ka la 25 Janeware 2019 go fihla ka la 25 Febeware 2019. Pego ya Tekodišišo e tša hwetšagalago wepsaeteng ya SRK: <http://www.srk.co.za> le mafelong a setšhaba ao a latelago ka nakong ya tekodišišo:

Lefelo la Setšhaba	Lefelo	Nomoro ya Mogala
Bokgobapuku bja Setšhaba bja Mapodile/Eerstegeluk	735 Kgahlanong Street, Mapodile	013 237 0039
Bokgobapuku bja Setšhaba bja Burgersfort	Cnr Kort & Eddie Sedibe Str, Burgersfort	013 231 7815
Dikantorong tša Kalkfontein CPA	Kalkfontein (Nokaneng)	Nomoro ya mogala ga e gona
Kantorong ya Thraeste ya Setšhaba sa Pakaneng	Schaapkraal Farm	Nomoro ya mogala ga e gona
Senthareng ya setšhaba ya Gamawela	St George Farm	Nomoro ya mogala ga e gona

Letšatšikgwele la mafelole la go romela ditshwaotshwao ka ga Pego ya Tekodišišo ke la 25 Febeware 2019. Go hwetša tšhedimošo ka botlalo, hle ikgoganyane le:

**Mohumagadi Aphiwe-Zona Dwtwana**  
 Kantoro ya Ditherišano le Bakgathatema  
 SRK Consulting, P. O. Box 55291, Northlands, 2116  
**Mogala:** (011) 441 6105  
**Fekese:** 086 503 6825  
**Emele:** [adotwana@srk.co.za](mailto:adotwana@srk.co.za)

## The department of Education plans to merge school



The Democratic Alliance's premier candidate Jacques Smalle with his colleague and SGB member at Senwane secondary school.

### GA-MOLEKWA

The candidate premier of the Democratic Alliance (DA) in Limpopo, Jacques Smalle together with DA shadow minister of education Nomsa Marchesi visited Senwane Secondary school at GaMolekwa in Bakenburg on 08 January 2019.

This follows after the school receives 0% pass rate and it is one of the three schools that receives 0% pass rate in 2018 matric results. The results were released on the third of January. This means not even a single learner from the school mentioned above has passed a matric.

Despite the 3, 8% improvement matric results in the province; Limpopo is at the bottom, over nine provinces.

It is alleged that the school has four educators who were

teaching from grade 8 to grade 12 and it does not have a principal. For that reason Marchesi urged the department of education should ensure that a principal is appointed at school and adequate teachers are appointed as well.

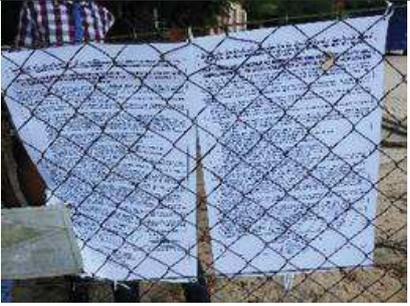
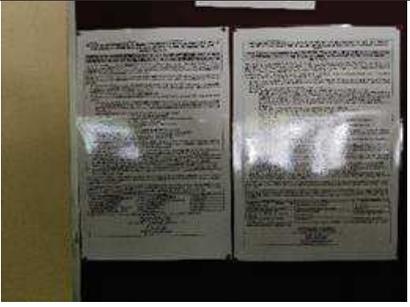
There are allegations that the department plans to merge the school. This is confirmed by one of school management who said discussion to merge the school is still underway.

Smalle said regardless of the challenges school faced Senwane secondary school should not be merged.

School governing body (SGB) members at school suspect that the poor performance condoned by the limited number of teachers. Concerned residents expressed their disappointment at the performance of the school.

## **Appendix 5-3: Site Notice Proof of Placement**

**533247: Der Brochen Amendment Project - Proof of Site Notices placed 07 Jan 2019**

<p><b>Public Place:</b> Mapodile/Eerstegeluk Public Library</p> <p><b>Locality:</b> 735 Kgahlanong Street, Mapodile</p> <p><b>Coordinates:</b> 24°43'52.15"S 30° 8'0.66"E</p>	
<p><b>Public Place:</b> Burgersfort Public Library</p> <p><b>Locality:</b> Cnr Kort &amp; Eddie Sedibe Str, Burgersfort</p> <p><b>Coordinates:</b> 24°40'39.53"S 30°19'47.09"E</p>	
<p><b>Public Place:</b> Kalkfontein CPA offices</p> <p><b>Locality:</b> Kalkfontein (Nokaneng)</p> <p><b>Coordinates:</b> 24°53'25.87"S 30° 3'58.36"E</p>	
<p><b>Public Place:</b> Pakaneng Community Trust Office</p> <p><b>Locality:</b> Schaapkraal Farm</p> <p><b>Coordinates:</b> 25° 5'41.86"S 30°10'45.66"E</p>	
<p><b>Public Place:</b> Gamawela Community Centre</p> <p><b>Locality:</b> St George Farm</p> <p><b>Coordinates:</b> 25° 1'13.24"S 30° 3'56.70"E</p>	
<p><b>Public Place:</b> Der Brochen Mine</p> <p><b>Locality:</b> Main Access Gate</p> <p><b>Coordinates:</b> 25° 0'15.70"S 30° 7'16.54"E</p>	

## **Appendix 6: Terms of Reference for Specialist Studies**



19 November 2018  
533247

## Anglo American Platinum Der Brochen Amendment Project: Specialist Terms of Reference

### 1 Introduction

SRK Consulting (South Africa) (Pty) Ltd (SRK) has been appointed by Anglo American Platinum (AAP) - Rustenburg Platinum Mines Limited (RPM) to undertake the integrated environmental authorisation process for its proposed Der Brochen Amendment Project in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and National Water Act, 1998 (Act No. 36 of 1998) (NWA).

This document serves as the Specialist Terms of Reference that provides detail on how the specialist will need to conduct their evaluation in respect of the Der Brochen Amendment Project, including the objectives and scope of the evaluation.

### 2 Project Background

The Der Brochen Mine is a Platinum Group Metals Project owned by Rustenburg Platinum Mines Limited (RPM), a wholly owned subsidiary of Anglo American Platinum (AAP), and is located approximately 25 km south-west of the town of Steelpoort, and 40 km west of Mashishing (Lydenburg), in the Limpopo Province. The mine falls within the Greater Tubatse Local Municipality, under jurisdiction of the Greater Sekhukhune District Municipality.

The Der Brochen Mine's mining right falls on the following farms:

- Richmond 370 KT;
- St George 2 JT;
- Hermansdal 3 JT;
- Hebron 5 JT;
- Helena 6 JT; and
- Der Brochen 7 JT.

In addition to the above-mentioned farms, RPM also holds the surface right to Portion 7 of the farm Mareesburg 8 JT on which the Mareesburg tailings storage facility (TSF), associated return water dams (RWDs) and tailings-return water pipeline are located, which forms part of the Der Brochen Mine operation.

The following activities and infrastructure are associated with the Der Brochen Mine, as authorised through the Der Brochen Mine's approved Environmental Management Programmes (EMPrs) and Water Use Licences (WULs):

- **Existing facilities and activities:**
  - Mototolo Concentrator;
  - Helena TSF and two associated Return Water Dams (RWDs);
  - Raising of the Helena Tailings Storage Facility (TSF);
  - Mine offices (old farm house) and access roads;
  - In-stream surface water monitoring weirs (five) with four of the weirs up and downstream within the Groot- and Klein Dwars Rivers supporting monitoring of the two authorised wellfields;
  - Prospecting activities comprising of site preparation, drilling of prospecting boreholes, site rehabilitation and monitoring;
  - Trial mining area on the Richmond farm (activity is completed, and the soil stockpile and waste rock dump are well vegetated);

- Abstraction of groundwater in support of mining from the Helena and Richmond licenced wellfields;
- Abstraction from Der Brochen Dam based on an existing lawful industrial allocation; and
- Monitoring of surface and groundwater;
- **Activities previously authorised, but which has not yet commenced:**
  - The Helena and Richmond wellfields (only two of the authorised boreholes per wellfield currently in use);
  - Helena and Richmond shafts and associated waste rock dumps;
  - Two Open Pits (Northern and Southern Pits) and associated waste rock/overburden dumps and pollution control dam;
  - Re-routing of a 132 kV powerline; and
  - A Co-Disposal Facility (tailings disposal with a rock embankment in the north pit).
- **Authorised activities under construction:**
  - Maresburg TSF and associated Return Water Dams (RWDs);and
  - Maresburg tailings-return water pipeline system to Mototolo Concentrator.

Refer to Figure 1 for the location of the Der Brochen Mine and infrastructure as detailed above.

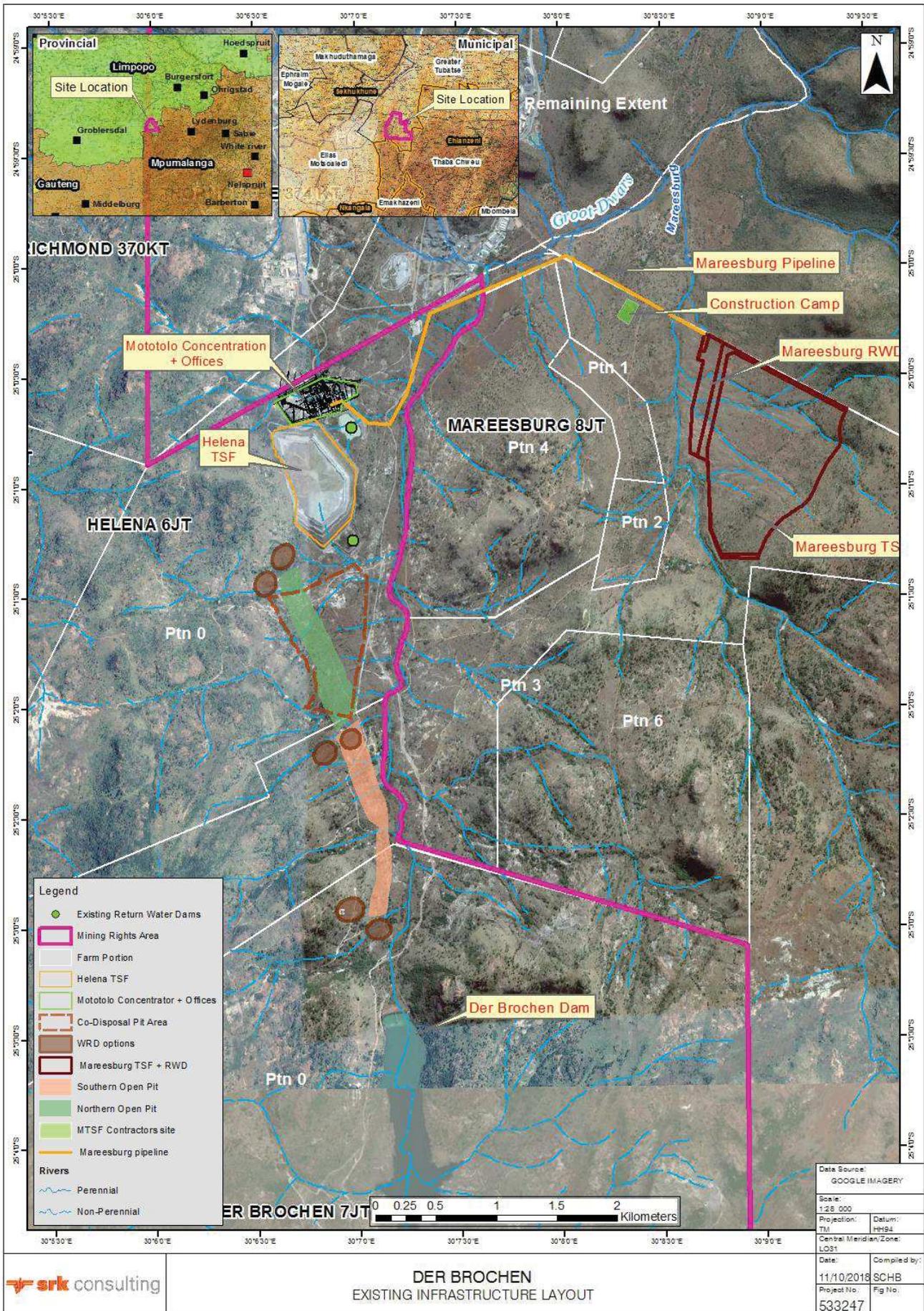


Figure 1: Regional location of the Der Brochen Mine

### 3 Der Brochen Amendment Project – Project Description

It is the intention of RPM to amend the Der Brochen Mine's approved EMPr and associated Environmental Authorisation (EA) including updating their WUL to include the following:

- The construction of a buttress wall at the existing Helena TSF under emergency circumstances as well as the development of an additional filter press plant at the existing Mototolo Concentrator Plant;
- The Der Brochen Mine's updated topsoil management procedures;
- The development and operation of the following additional mining related infrastructure as part of the mine's development strategy:
  - Two new decline shafts to access new underground mining operation areas that will be mined through the implementation of the bord-and-pillar mining method. It is the intention of RPM to locate the North decline shaft within the previously approved footprint area associated with the North open pit, and the South decline shaft to be located in close proximity to the previously approved South pit area.
  - Three up-cast ventilation shafts that will be associated with each decline shaft – in total six up-cast ventilation shafts will be required;
  - A central ventilation area consisting of a up-cast ventilation system that will service both decline shafts;
  - A Dense Medium Separation (DMS) Plant to be located next to the existing Mototolo Concentrator Plant;
  - An additional Chrome Plant to be located near the existing Mototolo Concentrator Plant;
  - A Run of Mine (RoM) stockpile and silos;
  - A DMS Stockpile area and associated pollution control dam (PCD);
  - A change house and office complex to be located at the new North and South Shaft areas;
  - Reverse osmosis plant(s) (RO Plant(s)) – the mine is currently undertaking a feasibility study in respect of the proposed RO Plant technology. If viable the mine will develop either one central RO Plant at South Shaft or an RO Plant at each shaft;
  - Linear infrastructure:
    - Conveyor systems;
    - Access and haul roads;
  - Watercourse crossings and diversions associated with the linear infrastructure and DMS Stockpile; and
  - Staff accommodation facilities at the Der Brochen Dam.

Refer to Figure 2 for the location of the proposed amendments as detailed above.

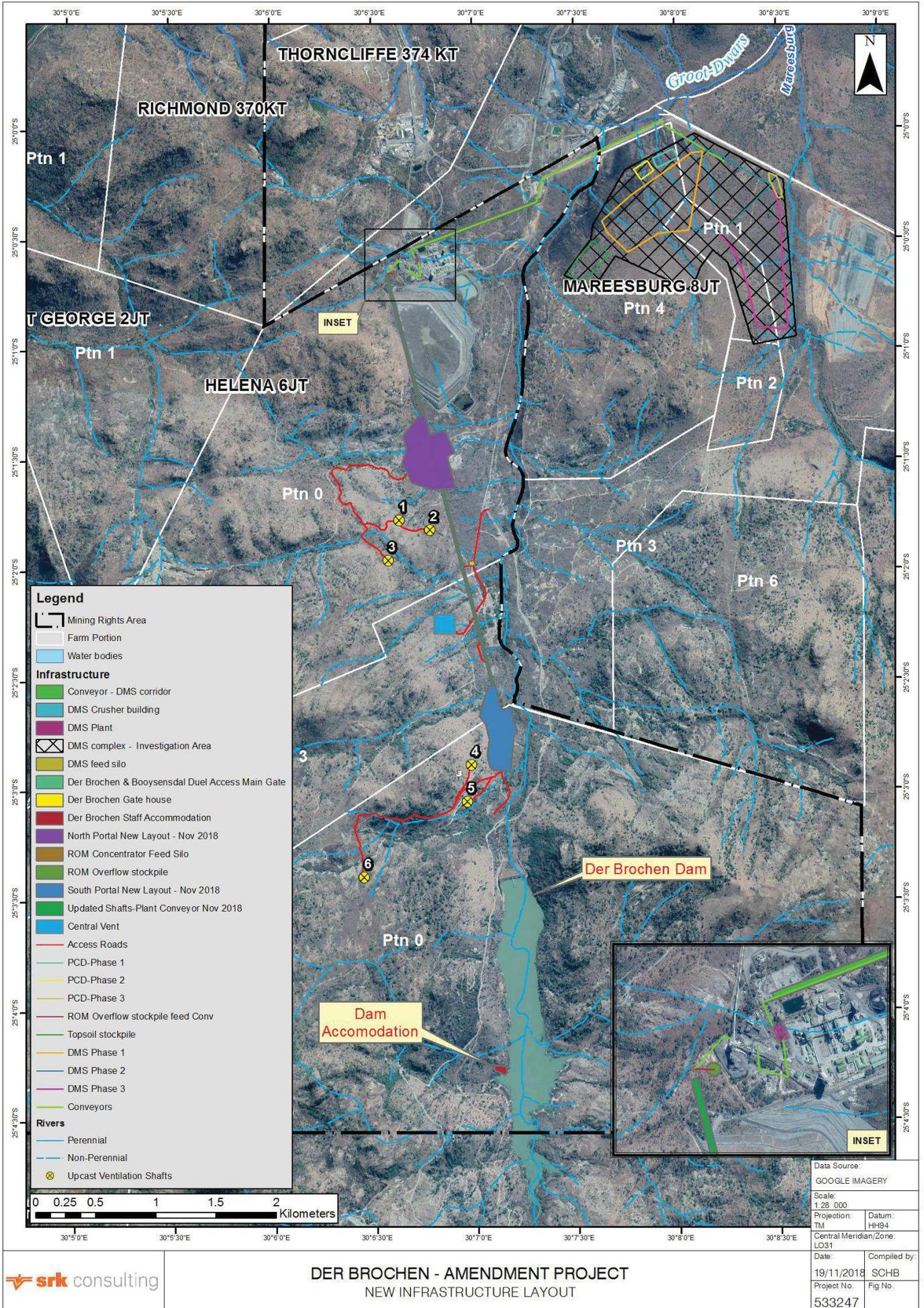


Figure 2: Der Brochen Mine's Amendment Project – Infrastructure required

## 4 Legal requirements for the proposed Der Brochen Amendment Project

The following legislation requirements are applicable in respect of the proposed Der Brochen Amendment Project:

- For the additional mining related activities and infrastructure:
  - The National Environmental Management Act (Act No. 107 of 1998) (NEMA);
    - For any project related Listed Activities stipulated in the NEMA Environmental Impact Assessment (EIA) Regulations of 2014, as amended in 2017;
  - The National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM:WA);
    - For any project related waste management activities stipulated in GN R 921, promulgated under NEM:WA;
  - The Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA)
    - For any amendments the proposed project will have on the Mining Work Programme and the Environmental Management Programme (EMPr) in accordance with Section 102 of the MPRDA;
  - The National Water Act (Act No. 36 of 1998) (NWA);
    - For any project related water uses stipulated under Section 21 of NWA.

Refer to Appendix A for the listed activities that could potentially be triggered by the proposed amendment project in relation to the above mentioned legislation, for which authorisation will be applied for through the integrated environmental authorisation process.

## 5 Impact Assessment Methodology

As part of the integrated environmental authorisation process, various specialist studies will need to be undertaken in support of the Environmental Impact Assessment (EIA) and the development of the Environmental Management Programme (EMPr).

All specialists are required to assess each proposed activity/aspect of the Der Brochen Amendment Project in relation to the construction, operational, closure and decommissioning phases in order to identify the potential impacts that may be associated with such activity and to develop appropriate mitigation measures that can be implemented to reduce or eliminate the potential impacts identified.

The specialist will assess the potential impact identified according to the Impact Assessment Methodology described below. This Impact Assessment Methodology has been formalised by SRK to comply the EIA Regulations of 2014 (as amended) promulgated under NEMA, which states the following:

*An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision, and must include – an assessment of each identified potentially significant impact, including –*

- (i) cumulative impacts;*
- (ii) the nature, significance and consequence of the impact and risk;*
- (iii) the extent and duration of the impact and risk;*
- (iv) the probability of the impact and risk occurring;*
- (v) the degree to which the impact and risk can be reversed;*
- (vi) the degree to which the impact and risk may cause irreplaceable loss of resources; and*
- (vii) the degree to which the impact and risk can be mitigated.*

Based on the above, the Impact Assessment Methodology requires that each potential impact identified is clearly described (providing the nature of the impact) and be assessed in terms of the following factors:

- **extend** (spatial scale) - *will the impact affect the national, regional or local environment, or only that of the site?;*
- **duration** (temporal scale) - *how long will the impact last?;*
- **magnitude** (severity) - *will the impact be of high, moderate or low severity?;* and
- **probability** (likelihood of occurring) - *how likely is it that the impact may occur?.*

To enable a scientific approach for the determination of the environmental significance (importance) of each identified potential impact, a numerical value has been linked to each factor.

<b>Occurrence</b>	<b>Duration:</b>	<b>Probability:</b>
	5 – Permanent	5 – Definite/don't know
	4 - Long-term (ceases with the operational life)	4 – Highly probable
	3 - Medium-term (5-15 years)	3 – Medium probability
	2 - Short-term (0-5 years)	2 – Low probability
<b>Severity</b>	1 – Immediate	1 – Improbable
		0 – None
	<b>Extent/scale:</b>	<b>Magnitude:</b>
	5 – International	10 - Very high/uncertain
	4 – National	8 – High
	3 – Regional	6 – Moderate
	2 – Local	4 – Low
1 – Site only	2 – Minor	
0 – None		

Once the above factors had been ranked for each identified potential impact, the environmental significance of each impact can be calculated using the following formula:

$$\text{Significance} = (\text{duration} + \text{extend} + \text{magnitude}) \times \text{probability}$$

The maximum value that can be calculated for the environmental significance of any impact is 100.

The environmental significance of any identified potential impact is then rated as either: high, moderate or low on the following basis:

- More than 60 significance value indicates a high (H) environmental significance impact;
- Between 30 and 60 significance value indicates a moderate (M) environmental significance impact; and
- Less than 30 significance value indicates a low (L) environmental significance impact.

In order to assess the degree to which the potential impact can be reversed and be mitigated, each identified potential impact will need to be assessed twice.

- Firstly the potential impact will be assessed and rated **prior** to implementing any mitigation and management measures; and
- Secondly, the potential impact will be assessed and rated **after** the proposed mitigation and management measures have been implemented.

The purpose of this dual rating of the impact before and after mitigation is to indicate that the significance rating of the initial impact is and should be higher in relation to the significance of the impact after mitigation measures have been implemented.

In order to assess the degree to which the potential impact can cause irreplaceable loss of resources, the following classes (%) will be used and will need to be selected based on the specialist informed decision and discretion:

- 5      100% - Permanent loss
- 4      75% - 99% - significant loss
- 3      50% - 74% - moderate loss
- 2      25% - 49% - minor loss
- 1      0% - 24% - limited loss

Please note that the Loss of Resources aspect will not affect the overall significance rating of the impact.

In terms of assessing the cumulative impacts, specialists are required to address this in a sentence/ paragraph fashion as the spatial extent of the cumulative impacts will vary from project to project.

Cumulative impact, in relation to an activity, means the impact of an activity that in itself may not be significant, but may become significant when added to the existing or potential impacts eventuating from similar or diverse activities or undertakings in the area.

An excel spreadsheet with the above mentioned Impact Assessment Methodology and associated formulas will be sent to you via email. SRK requests that the excel spreadsheet will be provided with the draft and final reports.

## 6 Specialist Report

### 6.1 Report Structure

All Specialist Reports will need to be compiled in such a manner that it adheres to the EIA Regulation requirements as detailed in Appendix 6 of the NEMA EIA Regulations of 2014, as amended. Please refer to **Appendix B** of this document for a breakdown of the NEMA specialist report requirements.

In addition to the above specialist report requirements, certain specialists' reports will assist as supporting documentation to the Water Use Licence Application (WULA) for the Der Brochen Amendment Project, i.e. the hydrological, geohydrological, biodiversity and rehabilitation studies.

Such specialist reports will need to be compiled, in addition to the NEMA EIA Regulation requirements, in accordance with the Regulations regarding the procedural requirements for water use licence applications (GN R 267 of March 2017).

Please refer to **Appendix C** of this document for a breakdown of the specific Reg 267 specialist report requirements.

### 6.2 Key deliverables

The following key deliverables and dates are of importance with regards to the specialist investigations and reporting:

Key Deliverable	Key due dates
Obtain Baseline information for scoping phase documentation purpose	Wednesday 30/11/2018
Obtain Draft Specialist Reports for SRK & client review	Thursday 07/02/2019
Specialist integrated workshop	One week between 08/02/2019 – 07/03/2019
Receive updated Specialist Reports based on outcomes of workshop for SRK & client review	Thursday 07/03/2019
Receive final Specialist Reports based on review	Monday 08/04/2019

## 7 Conclusion

We look forward working with you on this project. Please do not hesitate to contact Estie Retief or Selma Nel at SRK should you have any queries about this appointment letter.

Yours faithfully,

**SRK Consulting (South Africa) (Pty) Ltd**

**Estie Retief**  
Environmental Scientist

**Selma Nel**  
Senior Environmental Scientist - Project Manager

## Appendix A: Potential Listed Activities associated with the Der Brochen Amendment Project

The sections below detail the listed activities in terms of NEMA, NEM:WA, NWA, GN R 704 and NEM:AQA that may be triggered by the proposed project.

### NEMA Listed Activities

The following NEMA Listed Activities may be triggered by the proposed project:

GN Notice	Activity number and summarised description
GNR 983 Listing Notice 1	9 The development of infrastructure exceeding 1 000 m in length for the bulk transportation of water or storm water.
	10 The development and related operation of infrastructure exceeding 1 000 m in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes.
	11 The development of facilities or infrastructure for the transmission and distribution of electricity.
	12 The development of infrastructure exceeding 100 m <sup>2</sup> in a watercourse or within 32 m of a watercourse, measured from the edge of a watercourse.
	14 The development of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, with a combined capacity of 80 m <sup>3</sup> but not exceeding 500 m <sup>3</sup> .
	19 The infilling or depositing of any material of more than 10 m <sup>3</sup> into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 m <sup>3</sup> from a watercourse.
	24 The development of a road with a reserve wider than 13,5 m, or where no reserve exists where the road is wider than 8 m.
	25 The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 m <sup>3</sup> but less than 15 000 m <sup>3</sup> .
	34 The expansion of existing facilities or infrastructure for any process or activity where such expansion will result in the need for a permit or license or an amended permit or license in terms of national or provincial legislation governing the release of emissions, effluent or pollution.
	46 The expansion and related operation of infrastructure for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes.
	51 The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 m <sup>3</sup> .
	56 The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 km.
	57 The expansion and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage.
63 The expansion of facilities or infrastructure for the transfer of water from and to or between impoundments.	
GNR 984 Listing Notice 2	4 The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, with a combined capacity of more than 500 m <sup>3</sup> .
	6 The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.
	11 The development of facilities or infrastructure for the transfer of 50 000 m <sup>3</sup> or more water per day, from and to or between impoundments.
	15 The clearance of an area of 20 hectares or more of indigenous vegetation.
	16 The development of a dam, where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 m or higher or where the high-water mark of the dam covers an area of 10 hectares or more.
	17 Any activity including the operation of that activity which requires a mining right.

GN Notice	Activity number and summarised description	
	19	The removal and disposal of minerals contemplated in terms of section 20 of the MPRDA.
	25	The development and related operations of facilities or infrastructure for the treatment of effluent, wastewater or sewage with the daily throughput capacity of 15 000 m <sup>3</sup> or more
GNR 985 Listing Notice 3	2	The development of reservoirs excluding dams, with a capacity of more than 250 m <sup>3</sup>
	4	The development of a road wider than 4 meters with a reserve of less than 13.5m.
	5	The development of resorts, lodges, hotels, tourism or hospitality facilities that sleep less than 15 people.
	8	The development and related operation of above ground cableways and funiculars
	10	The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, with a combined capacity of 30 m <sup>3</sup> but not exceeding 80m <sup>3</sup>
	12	The clearance of an area of more than 300m <sup>2</sup> or more of indigenous vegetation.
	14	The development of infrastructure or structures with a physical footprint of 10 m <sup>2</sup> or more in a watercourse or within 32 m of a watercourse, measured from the edge of a watercourse.
	15	The transformation of land bigger than 1 000 m <sup>2</sup> in size, to residential, retail commercial, industrial or institutional use where such land was zoned open space, conservation or had an equivalent zoning on or after 2 August 2010.
	18	The widening of a road by more than 4m, or the lengthening of a road by more than 1 km.
	22	The expansion and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good.
	23	The expansion of infrastructure in a watercourse or within 32 m of a watercourse.

### NEM:WA Waste Management Activities

The following waste management activities will be associated with the proposed project:

GN Notice	Activity number and summarised description	
GN R921 Category B	10	The construction of a facility for a waste management activity listed un Category B of this Schedule (not in isolation to associated waste management activity)
	11	The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

### NWA Section 21 water uses

The following water uses will be associated with the Der Brochen Amendment Project:

- 21a: Taking of water from a water resource
- 21b: Storage of water
- 21c: Impeding or diverting the flow of water in a watercourse;
- 21g: Disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource;
- 21i: Altering the bed, banks, course or characteristics of a watercourse;
- 21j: Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation if an activity or for the safety of people.

### GN R 704 – Use of water for mining

In terms of the Der Brochen Amendment Project, the following exemptions will be applied for in terms of GN R 704 – *Regulations on the use of water for mining and related activities aimed at the protection of water resources.*

- Activity 4(a) – Placement of any residue deposit, dam, reservoir, together with any associated structure or any other facility within the 1:100 year flood-line or within a horizontal distance of 100m from any watercourse or borehole/well
- Activity 4(b) - Carry out any underground or opencast mining, prospecting or any other operation or activity under or within the 1:50 year flood-line or within a horizontal distance of 100m from any watercourse or estuary, whichever is the greatest
- Activity 4(d) - Use any area or locate any sanitary convenience, fuel depots, reservoir or depots for any substance which causes or is likely to cause pollution of a water resource within the 1:50 year flood-line of any watercourse
- Activity 5 – Use any residue or substance which causes or is likely to cause pollution of a water resource for the construction of any dam or other impoundment or any embankment, road or railway, or for any other purpose which is likely to cause pollution of a water resource.

### NEM:AQA Listed Activities

An Air Emissions licence will be applied for in respect of the following atmospheric emissions listed activities that will be associated with the Der Brochen Amendment Project:

GN Notice	Activity and summarised description	
GN R893 Category 2	2.4	Storage and handling of petroleum products: <ul style="list-style-type: none"> <li>• all permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1 000 m<sup>3</sup></li> <li>• all loading/ offloading facilities with a throughput greater than 50 000 m<sup>3</sup></li> </ul>
GN R893 Category 4	4.15	The metallurgical production and processing of arsenic, antimony, beryllium, chromium and silicon and their compounds by the application of heat
	4.17	Precious and base metal production and refining: the production and processing of precious and associated base metals through chemical treatment

## Appendix B: Specialist Report Content Requirements in terms of NEMA

In terms of the EIA/EMP reports, specialists will be required to compile the specialist report in accordance with Appendix 6 of the NEMA EIA Regulations of 2014, as amended in 2017. Specialist report therefore must contain:

- (a) details of—
  - (i) the specialist who prepared the report; and
  - (ii) the expertise of that specialist to compile a specialist report including a curriculum vitae;
- (b) a declaration that the specialist is independent in a form as may be specified by the competent authority;
- (c) an indication of the scope of, and the purpose for which, the report was prepared, the quality and age of base data used for the specialist report and a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;
- (d) the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;
- (e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;
- (f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;
- (g) an identification of any areas to be avoided, including buffers (if and where applicable);
- (h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers (if and where applicable);
- (i) a description of any assumptions made and any uncertainties or gaps in knowledge;
- (j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;
- (k) any mitigation measures for inclusion in the EMPr;
- (l) any conditions for inclusion in the environmental authorisation;
- (m) any monitoring requirements for inclusion in the EMPr or environmental authorization;
- (n) a reasoned opinion—
  - (i) whether the proposed activity, activities or portions thereof should be authorized regarding the acceptability of the proposed activity or activities; and
  - (ii) if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;
- (o) a description of any consultation process that was undertaken during the course of preparing the specialist report;
- (p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and
- (q) any other information requested by the competent authority.

## **Appendix C: Specialist Report Content Requirements in terms of NWA (Reg 267)**

The following contents' lists are included in this Appendix based on R267 unless otherwise specified:

- Integrated water and wastewater management report (**Appendix Ci**);
- Wetland delineation report (**Appendix Cii**);
- Surface water report (contents not specified in R267 but informed by IWWMP surface water requirements and requirements for Section 21(c) and (i) water uses) (**Appendix Ciii**) ;
- Geohydrology report (**Appendix Civ**);
- Mine closure/rehabilitation plan (**Appendix Cv**);
- Civil design and method statement (R267 and additional DWS requirements) (**Appendix Cvi**).

## Appendix Ci: INTEGRATED WATER AND WASTEWATER MANAGEMENT REPORT

- 1. Introduction**
  - 1.1 Activity Background
  - 1.2 Regional setting and location of activity
  - 1.3 Property description
  - 1.4 Purpose of MWMP
- 2. Conceptualization of activity**
  - 2.1. Description of activity
  - 2.2. Extent of activity
  - 2.3. Key activity related processes and products
  - 2.4. Activity life description
  - 2.5. Activity infrastructure description
  - 2.6. Key water uses and waste streams
  - 2.7. Organisational structure of activity
  - 2.8. Business and corporate policies
- 3. Regulatory water and waste management framework**
  - 3.1 Summary of all water uses
  - 3.2 Existing lawful water uses
  - 3.3 Relevant exemptions
  - 3.4 Generally authorised water uses
  - 3.5 New water uses to be licensed
  - 3.6 Waste management activity (NEMWA)
  - 3.7 Waste related authorisations
  - 3.8 Other authorisation (EIAs, EMPs, RODs, Regulations)
- 4. Present Environmental Situation**
  - 4.1 Climate
  - 4.2 Regional Climate Rainfall
  - 4.3 Evaporation
  - 4.4 Surface Water
  - 4.5 Water Management Area
  - 4.6 SurfaceWater Hydrology
  - 4.7 SurfaceWater Quality
  - 4.8 Mean Annual Runoff (MAR)
  - 4.9 Resources Class and River Health Receiving Water Quality Objectives and Reserve
  - 4.10 SurfaceWater User Survey
  - 4.11 Sensitive Areas Survey
  - 4.12 Groundwater
  - 4.13 Aquifer Characterization
  - 4.15 Hydro-census
  - 4.16 Potential Pollution Source Identification
  - 4.17 Groundwater Model
  - 4.18 Socio-economic environment
- 5. Analysis and characterization of the water use activity**
  - 5.1 Site delineation for characterisation
  - 5.2 Water and waste management
  - 5.3 Process water
  - 5.4 Storm water
  - 5.5 Groundwater
  - 5.6 Waste
  - 5.7 Operational Management

- 5.8 Organisational Structure
- 5.9 Resources and competence
- 5.10 Education and training
- 5.11 Internal and external communication
- 5.12 Awareness raising
- 5.13 Monitoring and control
- 5.14 Surface water monitoring
- 5.15 Groundwater monitoring
- 5.16 Bio monitoring
- 5.17 Waste monitoring
- 5.18 Risk assessment / Best Practice Assessment
- 5.19 Issues and responses from public consultation process
- 5.20 Matters requiring attention / problem statement
- 5.21 Assessment of level and confidence of information
- 6. Water and Waste Management**
- 6.1 Water and waste management philosophy (process water, stormwater, groundwater and waste)
- 6.2 Strategies (process water, stormwater, groundwater and waste)
- 6.3 Performance objectives / goals
- 6.4 Measures to achieve and sustain performance objectives
- 6.5 Option analyses and motivation for implementation of preferred options (optional)
- 6.6 IWWMP action plan
- 6.7 Control and monitoring
- 6.8 Monitoring of change in baseline (environment) information (Surface water, groundwater and bio-monitoring)
- 6.9 Audit and report on performance measures
- 6.10 Audit and report on relevance of IWWMP action plan
- 7. Conclusion**
- 7.1 Regulatory status of activity
- 7.2 Statement of water uses requiring authorisation, dispensing with licencing requirement and possible exemption from regulation
- 8. References**
- 9. Appendices: Specialist Studies
- 9.1 Geohydrology
- 9.2 Civil design
- 9.3 Wetland delineation report

## **Appendix Cii: WETLAND DELINEATION REPORT**

Important aspects to be addressed for the Der Brochen study under the relevant headings below (or as Appendices to the report) include the following and should consider the applicable conditions in Appendix IV of the Licence No. 06/B41G/ABCFGIJ/5329 issued in May 2017:

- Cumulative impacts of combined open pit and shaft mining.
- Recommended Ecological Category (REC) of the delineated wetlands/river systems.
- Rehabilitation plan for the wetland and riparian areas.
- Landscape maintenance plan to cover the riparian zones that will be affected by mining activities.
- Plant species plan map, covering the riparian zones that will be affected by mining.

- 1 Introduction**
- 2 Terms of reference**
- 3 Knowledge gaps**
- 4 Study area**
- 5 Expertise of the specialist**
- 6 Aims and objectives**
- 7 Methodology**
  - 7.1 Wetland identification and mapping
  - 7.2 Wetland delineation
  - 7.3 Wetland functional assessment
  - 7.4 Determining the ecological integrity of the wetlands
  - 7.5 Determining the Present Ecological State of wetlands
  - 7.6 Determining the Ecological Importance and Sensitivity of wetlands
  - 7.7 Ecological classification and description
- 8 Results**
  - 8.1 Wetland delineation
  - 8.2 Wetland unit identification
  - 8.3 Wetland unit setting
  - 8.4 Wetland soils
  - 8.5 Description of wetland type
  - 8.6 General functional description of wetland types
  - 8.7 Wetland ecological functional assessment
  - 8.8 The ecological health assessment of the opencast mining area (*as specified in R267 but to be noted that in the context of this project the heading should read "The ecological health assessment of the mining area"*)
  - 8.9 The PES assessment of the remaining wetland areas
  - 8.10 The EIS assessment of the remaining wetland areas
- 9 Impact assessment discussions.**
- 10 Conclusions and recommendations**
- 11 References**

The reports listed below contain the standardised and accepted methods that must be used for determining the various aspects of assessments during the WUA process related to wetlands:

- 1) Wetland and riparian habitat delineation document (DWS report on DWS website);
- 2) Wetland Buffer Guideline (SANBI WRC project and Report, on DWS website)
- 3) Wetland Offset (WRC report TT660/16; on DWS website)
- 4) High Risk Wetland Atlas (WRC Report TT659/16, on DWS website)
- 5) Wetland Rehabilitation in mining landscapes (WRC Report TT658/16, on DWS website)
- 6) Risk Assessment Protocol and associated Matrix (DWS document on DWS Website)

### **Appendix Ciii: SURFACE WATER STUDY REPORT**

No content list is specified in R267. Important aspects to be addressed in the revision of the 2014 Der Brochen surface water study include the following:

- Floodlines for affected tributaries of the Groot Dwars River and Mareesburg Stream (waste rock dump area). This must include any areas where mining is within 100 m vertical distance of a watercourse.
- Stormwater controls: A3 plans of the proposed stormwater controls will be required and these must consider the stormwater conditions in Appendix IV of the Licence No. 06/B41G/ABCFGIJ/5329 issued in May 2017 for the Der Brochen Project, and recommendations from the latest GN704 and WUL audits conducted by SRK. The recommended controls must be aligned with the aquatic ecologist recommendations.
- Site specific design, operation and management requirements for full compliance to GN704.
- Water balance in support of the WULA: Volumes to align with WULA form volumes for annual maximum values and integrate with the approved activities that will continue as part of the Der Brochen Project e.g. Mareesburg TSF. The DWS template format (table format indicating major inputs and outputs per area/facility to be authorised) should be used.
- Assess flow drivers in conjunction with the geohydrologist, soil specialist and aquatic ecologist, specifically the following:
  - Contribution of groundwater (geohydrology), surface water (hydrology) and interflows (hydropedology) into the watercourse, losses, treatment, discharge back to the system
  - Level of modification to flow drivers.

## **Appendix Civ: GEOHYDROLOGY REPORT**

Important aspects to be addressed for the Der Brochen study under the relevant headings below include the following:

- Supply from groundwater: this is part of the current pre-feasibility groundwater scope and will need to be aligned with the current pre-feasibility water balance study outcomes.
- Hydrocensus to identify any domestic water supply boreholes within 1 km radius of the mine expansions to address Licence No. 06/B41G/ABCFGIJ/5329, Condition 16.2 of Appendix II.
- Groundwater model to consider the dewatering cone of depression for the proposed shafts as stand-alone activities as well as combined with the authorised open pits, impact on flow in the Groot Dwars River, and mitigation of impacts on flow. The flow considerations will need to be integrated with the surface water, aquatic ecology and soil studies.
- Cumulative impacts of combined open pit and shaft mining.

### **1. Introduction**

### **2. Geographical setting**

2.1 Topography and drainage

2.2 Climate

### **3. Scope of Work**

### **4. Methodology**

4.1 Desk study

4.2 Hydro-census

4.3 Geophysical survey and results

4.4 Drilling and siting of boreholes

4.5 Aquifer testing

4.6 Sampling and chemical analysis

4.7 Groundwater recharge calculations

4.8 Groundwater modelling

4.9 Groundwater availability assessment

### **5. Prevailing groundwater conditions**

5.1 Geology

5.1.1 Regional geology

5.1.2 Local geology

5.2 Acid generation capacity

5.3 Hydrogeology

5.3.1 Unsaturated zone

5.3.2 Saturated zone

5.3.3 Hydraulic conductivity

5.4 Groundwater levels

5.5 Groundwater potential contaminants

5.6 Groundwater quality

### **6. Aquifer Characterisation**

6.1 Groundwater vulnerability

6.2 Aquifer classification

6.3 Aquifer protection classification

### **7. Groundwater Modelling**

7.1 Software model choice

7.2 Model set-up and boundaries

7.3 Groundwater elevation and gradient

7.4 Geometric structure of the model

7.5 Groundwater sources and sinks

- 7.6 Conceptual model
- 7.7 Numerical model
- 7.8 Results of the model
  - 7.8.1 Pre-facility (Mining/Industry/ Wastewater treatment plant, etc)
  - 7.8.2 During facility (mining/ Industry/ Wastewater treatment plant) operations
  - 7.8.3 Post-facility (mining/ Industry/ Wastewater treatment plant) operation
- 8. Geohydrological Impacts**
  - 8.1 Construction phase
    - 8.1.1 Impacts on Groundwater Quantity
    - 8.1.2 Impacts on Groundwater Quality
    - 8.1.3 Groundwater Management
  - 8.2 Operational phase
    - 8.2.1 Impacts on Groundwater Quantity
    - 8.2.2 Impacts on Groundwater Quality
    - 8.2.3 Impacts on Surface Water
    - 8.2.4 Groundwater Management
  - 8.3 Decommissioning phase
  - 8.4 Post-mining phase
    - 8.4.1 Groundwater Quantity
    - 8.4.2 Groundwater Quality
    - 8.4.3 Cumulative Impacts
    - 8.4.4 Groundwater Management
- 9. Groundwater monitoring system**
  - 9.1 Groundwater monitoring network
    - 9.1.1 Source, plume, impact and background monitoring
    - 9.1.2 System response monitoring network
      - 9.1.3 Monitoring frequency
  - 9.2 Monitoring parameters
  - 9.3 Monitoring boreholes
- 10. Groundwater Environmental Management Programme**
  - 10.1 Current groundwater conditions
  - 10.2 Predicted impacts of facility (mining)
  - 10.3 Mitigation measures
    - 10.3.1 Lowering of groundwater levels during facility operation (Mining/Industry/ Wastewater treatment plant, etc.
    - 10.3.2 Rise of groundwater levels post-facility operation (Mining/Industry/ Wastewater treatment plant, etc.
    - 10.3.3 Spread of groundwater pollution post- facility operation (Mining/Industry/ Wastewater treatment plant, etc.
- 11. Post Closure Management Plan**
  - 11.1 Remediation of physical activity
  - 11.2 Remediation of storage facilities
  - 11.3 Remediation of environmental impacts
  - 11.4 Remediation of water resources impacts
  - 11.5 Backfilling of the pits.
- 12 Conclusion and Recommendations**

## **Appendix Cv: MINE CLOSURE/REHABILITATION PLAN**

- 1. Introduction**
- 1.1 Background
- 1.2 Objectives of report
- 2. Project Description**
- 2.1 Locality
- 2.2 Environment
- 2.3 Community
- 2.4 Mine plan and infrastructure
- 3. Legal obligation and comments**
- 3.1 Legislation
- 4. Closure planning**
- 4.1 Site-specific closure and activity
- 5. Rehabilitation and closure activities**
- 5.1 Progressive rehabilitation
- 5.2 Decommission and establishment
- 6. Maintenance and monitoring**
- 6.1 Vegetation and establishment and soil nutrients
- 6.2 Groundwater monitoring
- 6.3 Surface water monitoring
- 6.4 Record-keeping and reporting
- 7. Rehabilitation and Closure Annexure**
- 8. Detailed closure costing**

**PUBLIC PARTICIPATION REPORT**

- 9. Introduction**
- 10. Objectives of the public participation**
- 11. Identification of interested and affected parties**
- 12. Notification of interested and affected parties**
  - 12.1 Method of notification
  - 12.2 Proof of notification
- 13. Notification of interested and affected parties of reports and other studies**
- 14. Interested and affected parties**
  - 14.1 Access and opportunity to comment on all written submissions
  - 14.2 Response to comments received: feedback to interested and affected parties
  - 14.3 Disclosure of interested and affected parties interests
  - 14.4 Notifying interested and affected parties of the decision
- 15. Record of issues raised**
- 16. Addressing the comments and concerns raised by the interested and affected parties**
- 17. Conclusions and recommendations**

**Appendix Cvi: CIVIL DESIGN AND METHOD STATEMENT**

**R267 REQUIREMENTS FOR CIVIL DESIGN DRAWINGS AND REPORT FROM APPLICANT:**

Proto CMA / CMA:		
Tel:(w) .....(cell) ..... E-Mail:		
Project Title: .....		
District/Municipality: ..... Property: .....		
<u>Requirements</u>	<u>Submitted</u>	<u>Details</u>
Water uses applicable in terms of Section 21 (NWA: Act 36 of 1998)		Section 21:
Design report and drawings signed by PrEng		Reg No.
ECSA registration of engineer confirmed		
Site geology summarized		
Site geohydrology report attached		
WUL 21 f, g & j uses: Waste classification type (Norms and Standards, R. 635 August 2013)applicable		Type 0/1/2/3/4
Life span for the proposed activity		Years:
Signature of Applicant		Date

**REQUIREMENTS FOR CIVIL DESIGN DRAWINGS FOR SECTION 21(c) and (i) WATER USE**

Start and end co-ordinates in decimal degrees using WGS-84 system
Dimensions: length across watercourse, breadth and height of structure or pipe diameter. Height of pipe or conveyor above ground/base flow of watercourse.
Materials and construction methods as applicable
Flood capacity e.g. 1:50 year
Floodline: 1:50 and 1:100 pre- and post development
Energy dissipation
Erosion and sediment controls
Scour protection
Pollution controls e.g. dog housing on conveyor, collection sumps at pipeline crossings
Post construction rehabilitation

**METHOD STATEMENT**

Drawn up by the project engineer on how construction and post construction rehabilitation will be implemented to minimise impacts to the water resource. There is no prescribed format but aspects to be considered include the following:

- The Method Statement should talk to the identified impacts e.g. describe how a wetland is crossed.
- Construction methodology and materials used should be described.
- The stormwater management aspects should focus on the construction phase e.g. installation of trench breakers to prevent donga formation).
- The post construction rehabilitation plan should include paper trail aspects e.g. maintaining a photographic record.

## **Appendix 7: Authorities Correspondence**



# mineral resources

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

Private Bag X 9467, Polokwane, 0700, Tel: 015 287 4761, Fax: 015 287 4729  
DMR Building, 101 Dorp Street, Polokwane, 0699

**Enquiries:** Chavalala N **Ref:** LP 30/5/1/3/2/1(182) EM  
**E-Mail Address:** Nicholas.Chavalala@dmr.gov.za  
**Sub-Directorate:** Mine Environmental Management

## BY REGISTERED POST

The Director:  
Rustenburg Platinum Mines (De Brochen Mine)  
P.O. Box 62179  
MARSHALLTOWN  
2107

For attention: Mr Muhle Boroko

Tel: 013 230 4522  
Email: boroko@angloamerican.com

**RE: SLIMES DAM SEEPAGE INCIDENT AND POSSIBLE DAM WALL COLLAPSE (EMERGENCY) OF HELENA TAILINGS DAM AT THE MOTOTOLO JV CONCENTAR.**

Your letter dated 08 August 2017 and the inspection conducted by officials from this Department on the 19<sup>th</sup> September 2017 refers.

The department has noted that:

1. There has been an incident of seepage from the Helena Tailings Dam.

In this regard, you are directed to comply with the requirements of Section 30 of the National Environmental Management Act, 1998 (Act no. 107 of 1998) as amended.

2. There is indeed a risk and potential for the dam wall to collapse which is an emergency case

In this regard, you are instructed to comply with the requirements of Section 30(A)(2)(b) of the National Environmental Management Act, 1998 (Act no. 107 of 1998) as amended.

You are also directed to list the activities which may require an amendment of the approved EMPr in terms of regulation 29 or 31 of the EIA Regulations of 2014 as amended.

3. However, the Department **recommends** that the Mine proceeds to implement the proposed mitigation measures to prevent or contain the emergency situation or to prevent, contain or mitigate the effects of the emergency situation.

Kind Regards,

.....  
REGIONAL MANAGER: MINERAL REGULATION  
LIMPOPO REGION  
DATE: 03/10/2017

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