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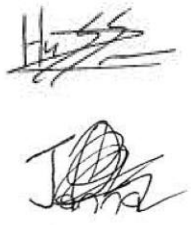
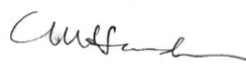

FINAL SCOPING REPORT FOR THE PROPOSED BLOCK Z PROJECT AT ISIBONELO COLLIERY (MDEDET REFERENCE: 17/2/3N-362)

Anglo Operations Limited

2014/09/15

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Final Scoping Report for the Proposed Block Z project at Isibonelo Colliery (MDEDET Reference: 17/2/3N-362)

Anglo Operations Limited

2014/09/15

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List of Abbreviations

General

Abbreviation	Full term
AAC	Anglo American Coal
AQIA	Air Quality Impact Assessment
AQMP	Air Quality Management Plan
AEL	Atmospheric Emissions Licence
BA	Basic Assessment
BBBEE	Broad Based Black Economic Empowerment
BID	Background Information Document
CBD	Convention on Biological Diversity
CBO	Community-Based Organisations
DEA	Department of Environmental Affairs
DEAT	Department of Environmental Affairs and Tourism
DMR	Department of Mineral Resources
DSR	Draft Scoping Report
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPR	Environmental Management Programme Report
EMPr	Environmental Management Programme reports
EIR	Environmental Impact Report
ESA	Early Stone Age
FSR	Final Scoping Report
GIS	Geographical Information System
GNR	Government Notice Regulation
HIA	Heritage Impact Assessment
I&AP	Interested and Affected Party(ies)
ICMM	International Council for Mining and Minerals
IEM	Integrated Environmental Management
IUCN	International Union for Conservation of Nature
IWWMP	Integrated Waste Water Management Plan
LIA	Late Iron Age
LoM	Life of Mine
LSA	Late Stone Age
MDEDET	Mpumalanga Department of Economic Development, Environment and Tourism
MEC	Minister (or member) of the Executive Committee
MSA	Middle Stone Age

Abbreviation	Full term
MTPA	Mpumalanga Tourism and Park Agency
NBSAP	National Biodiversity Strategy and Action Plan
NEPAD	New Partnership of Africa's Development
NGO	Non-Governmental Organisations
NSBA	National Spatial Biodiversity Assessment
PoS	Plan of Study
SABS	South African Bureau of Standards (SABS)
SAHRA	South African Heritage Resources Agency
SAMBF	South African Mining and Biodiversity Forum
SANBI	South African National Biodiversity Institute
SANS	South African National Standards
SASS	South African Scoring System v.5
SDS	Safety Data Sheets
S&EIR	Scoping and Environmental Impact Reporting
SIA	Social Impact Assessment
SLP	Social Labour Plan
SSF	Sasol Synthetic Fuels
SWDC	Stormwater Diversion Channel
SWMP	Stormwater Management Plan
WML	Waste Management Licence
WUL	Water Use License
WULA	Water Use License Application

Legislation

Abbreviation	Full term
CARA	Conservation of Agricultural Resources Act (No. 43 of 1983)
MPRDA	Minerals and Petroleum Resources Development Act (No. 28 of 2002)
NEMA	National Environmental Management Act (No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act (No. 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act (No. 10 of 2004)
NEM:PAA	National Environmental Management Protected Areas Act (No. 57 of 2003)
NEM:WA	National Environmental Management: Waste Act (No. 59 of 2008)
NHRA	National Heritage Resources Act (No. 25 of 1999)
NVFFA	National Veld and Forest Fire Act (No. 101 of 1998)
NWA	National Water Act (No 36 of 1998)
SABS	South African Bureau of Standards (SABS)

Abbreviation	Full term
SAHRA	South African Heritage Resources Agency
SEMA	Specific Environmental Management Acts

Measuring Units / Chemicals

Abbreviation	Full term
COD	Chemical Oxygen Demand
ha	Hectares
hPa	Hectopascal
Kg	Kilogram
km	Kilometre(s)
Kt	kilo tons
kV	Kilo volts
l / s	Litres per second
m	Metre(s)
masl	Metres above sea level
mbgl	Metres below ground level
mS / m	Milli Siemens per metre
Mtpa	Mega tons per annum
MVA	Mega Volt- Ampere
PM	Particulate Matter
µm	Micro metres
VAC	Visual Absorption Capacity
pH	Acidity
°C	Temperature – Degree Celsius
TDS	Total Dissolved Solids
EC	electrical conductivity
SS	Turbidity, Suspended Solids
Elements / Chemical Compounds	
Al	Aluminium
NH ₄	Ammonia
Ca	Calcium
Cd	Cadmium
Cl	Chloride
Cr	Chrome
Co	Cobalt
Cu	Copper
Fe	Iron

Abbreviation	Full term
H ₃ PO ₄	Orthophosphates
Mg	Magnesium
Mn	Manganese
Na	Sodium
Ni	Nickel
NO ₂	Nitrites
NO ₃	Nitrates
NOX	Nitrogen Oxides
Pb	Lead
SO ₂	Suplhur Dioxide
SO ₄	Sulphates
Zn	Zinc

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1 Introduction

1.1 Purpose of this Report

The purpose of this Final Scoping Report (FSR) is to provide stakeholders with an overview of the Anglo American Coal (AAC): Isibonelo Colliery's (Isibonelo Colliery) proposed Block Z project, characterise the environmental and social context, identify potential environmental, social and health aspects and impacts associated with the proposed Block Z project and invite early input from stakeholders in the identification of key issues and areas of concern, in order to inform the Scoping and Environmental Impact Reporting (S&EIR) process. The main objectives of the scoping phase are to:

- Describe the methodology applied to conduct the S&EIR process;
- Provide a description of the proposed Block Z project area;
- Identify and describe reasonable land use or development alternatives to the proposed Block Z project;
- Describe the existing status of the biophysical and socio-economic environment;
- Identify and describe the anticipated environmental, social and cultural impacts associated with the proposed Block Z project and outline supporting studies included within the S&EIR process to address these issues further;
- Describe the process of engagement with stakeholders, including their views and concerns; and
- Describe the nature and extent of further investigations required in the Environmental Impact Report (EIR) phase.

1.2 Structure of this Final Scoping Report

The FSR has been drafted in accordance with the National Environmental Management Act (No. 107 of 1998) as amended, (NEMA) Environmental Impact Assessment (EIA) Regulations (Government Notice Regulation [GNR] 543 of 2010) and GNR 527 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA). The FSR has been compiled in a diligent and independent manner, and includes the following:

- An introduction to the proposed Block Z project, the project proponent, the Environmental Assessment Practitioner (EAP) and specialists, as well as competent authorities (**Section 1**);
- Description of the legislation applicable to the proposed Block Z project (**Section 2**);
- Approach to the scoping phase and stakeholder engagement (**Section 3**);
- Project need and desirability (**Section 4**);
- Project description including existing and proposed (**Section 5**);
- Project alternatives including 'no-go' alternatives (**Section 6**);
- Description of the baseline biophysical and socio-economic conditions of the proposed Block Z project area (**Section 7**);
- Identification of potential environmental and socio-economic impacts, including cumulative impacts (**Section 8**);
- Plan of study for EIR (**Section 9**); and
- The Way Forward (**Section 10**).

1.3 Isibonelo Colliery

Isibonelo Colliery established an opencast mine to supply Sasol's Synthetic Fuel (SSF) plant located in Secunda. Isibonelo Colliery acquired a mining right in 2003 that covered an area of 2188.55 hectares (ha), and the first coal was supplied to SSF in July 2005.

Isibonelo Colliery primarily utilizes the dragline strip-mining method as a means of coal removal from the coal seams encompassed in the Highveld coalfield. Bituminous coal seams hosted by the sedimentary strata in the Isibonelo Colliery Mining Licence area include, from the base up, the No 1, 2, 3, 4 and 5 seams. Only the No 4 seam is presently considered to be economically viable, with an average opencast depth of 40m and a thickness of 5,6 m.

In order for Isibonelo Colliery to fulfil contractual agreements for the continued supply of coal to SSF, they need to mine the proposed Block Z area.

Isibonelo Colliery is situated in the Mpumalanga Province, approximately 60km south of Witbank and 8km south of the town of Kriel in the Mpumalanga Province. More specifically, Isibonelo Colliery is located between the towns of Kinross, Secunda, Bethal and Kriel (**Figure 1-1**). The area falls within the Nkangala District and the Emalaheni Local Municipalities. The Isibonelo Colliery mine lease area is located on the following properties (**Figure 1-2**):

1. Alexander 12 IS;
2. Witbank 102 IS;
3. Boschmanskraal 113 IS;
4. Brakfontein 117 IS;
5. Aangewys 81 IS;
6. Onverwacht 70 IS;
7. Vlaklaagte 83 IS;
8. Rietfontein 100 IS; and
9. Rietfontein 101 IS.

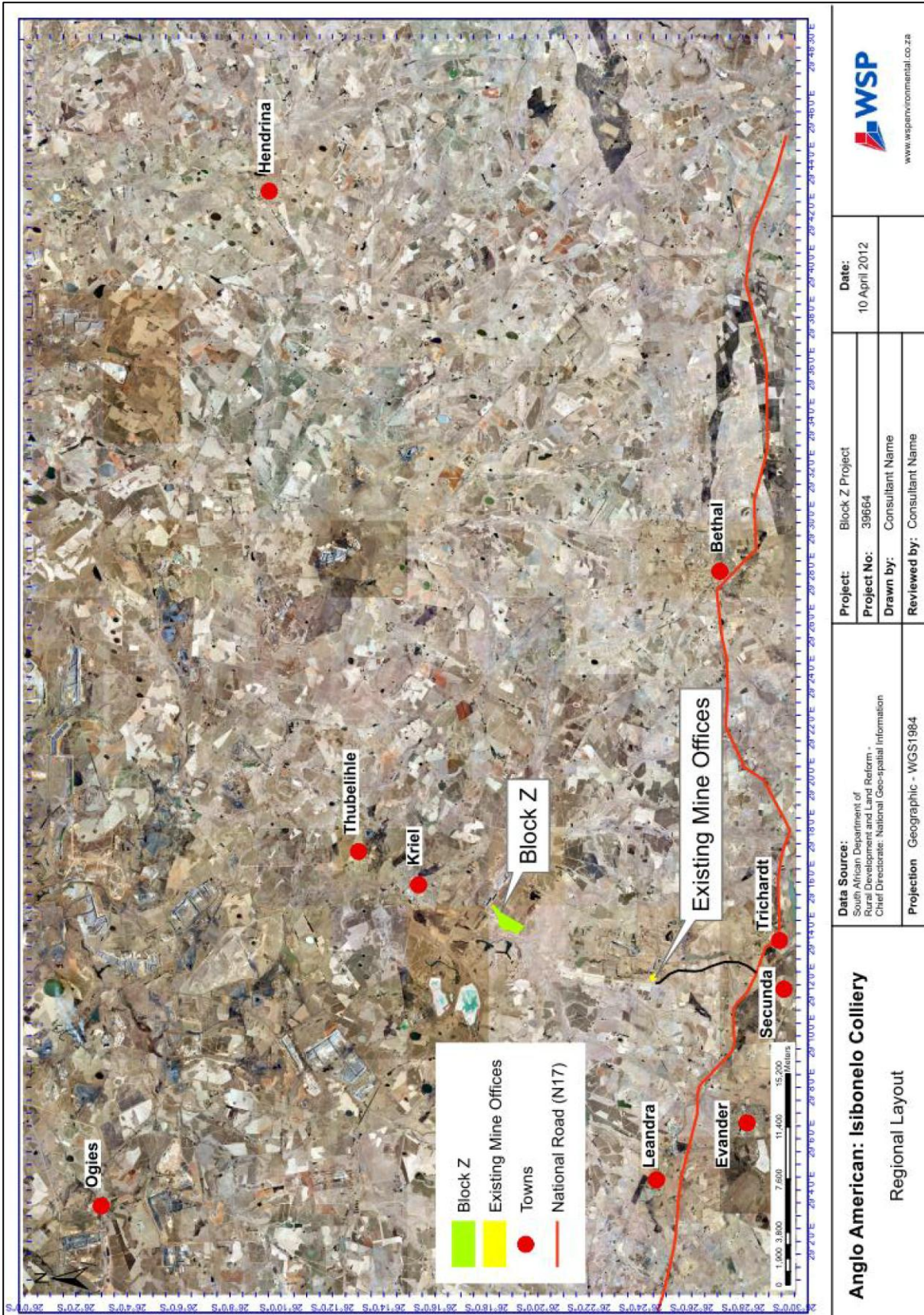


Figure 1-1: Isibonelo Colliery Regional Map (ArcView GIS, 2014)

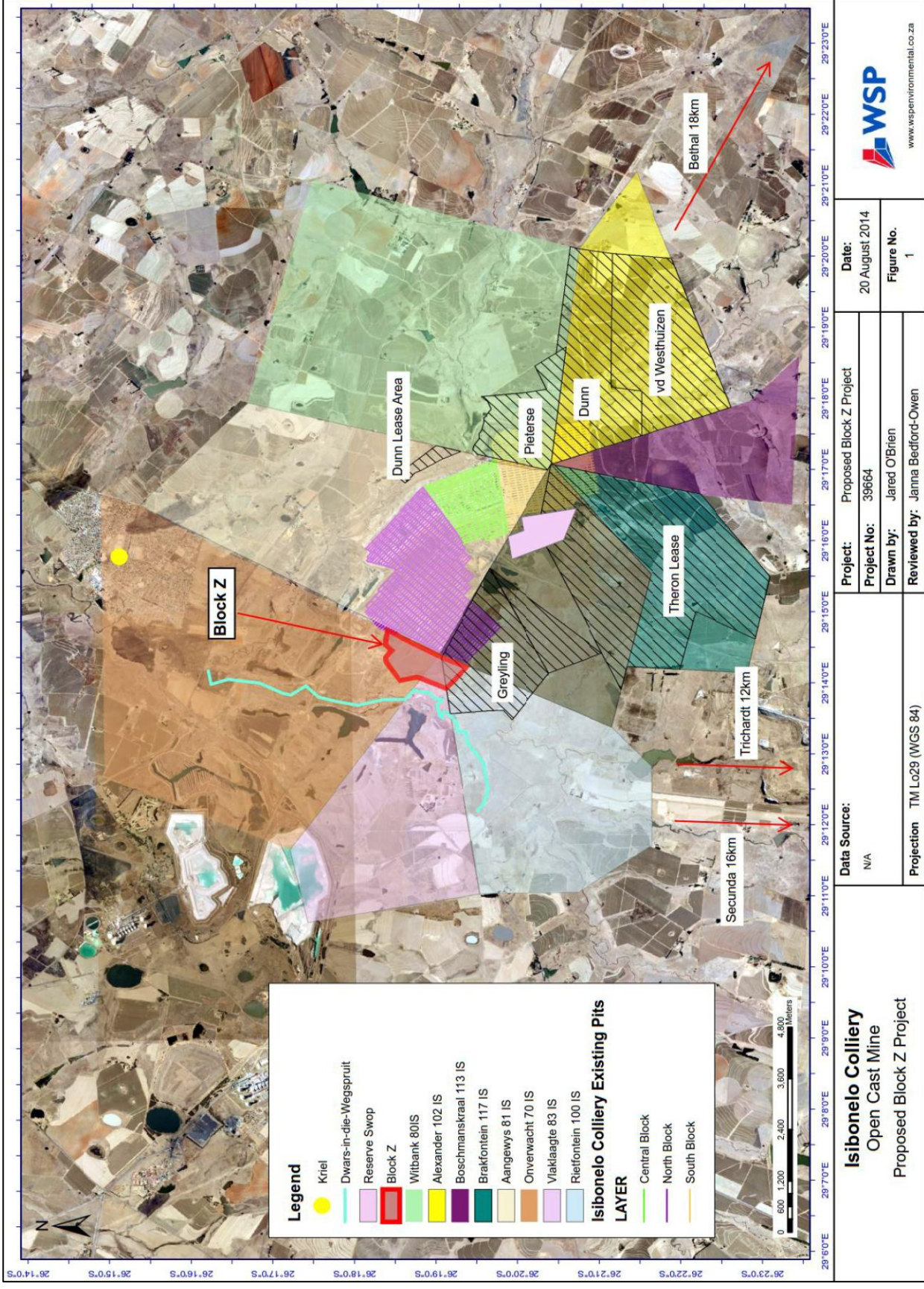


Figure 1-2: Indicates the farm boundaries on which Isibonelo Colliery is situated (ArcView GIS, 2014)

1.4 Terms of Reference

Isibonelo Colliery currently operates its opencast mine in accordance with the recently consolidated and approved Environmental Management Programme Report (EMPR) (Department of Mineral Resources (DMR) reference number: OT6/2/2/447MP30/5/1/2/3/2/1) (130) EM) and has an estimated thirteen year life of mine (LoM) remaining.

The proposed Block Z project was not included in the above approved EMPR and therefore, in order to commence with the proposed mining activities at Block Z, Isibonelo Colliery is required to obtain the following:

- Environmental authorisation for activities identified in terms of GNR 544 and 545 (December 2010) published in terms of the NEMA from the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET);
- A water use license (WUL) in terms of the National Water Act (No. 36 of 2004) (NWA) from the Department of Water Affairs (DWA); and
- A mining right transfer and amendment application and an EMPR Amendment in terms the MPRDA from the DMR.

An integrated S&EIR process will need to be completed in order to meet the abovementioned legal requirements. **Figure 1-3** provides a graphical representation of this integrated process.

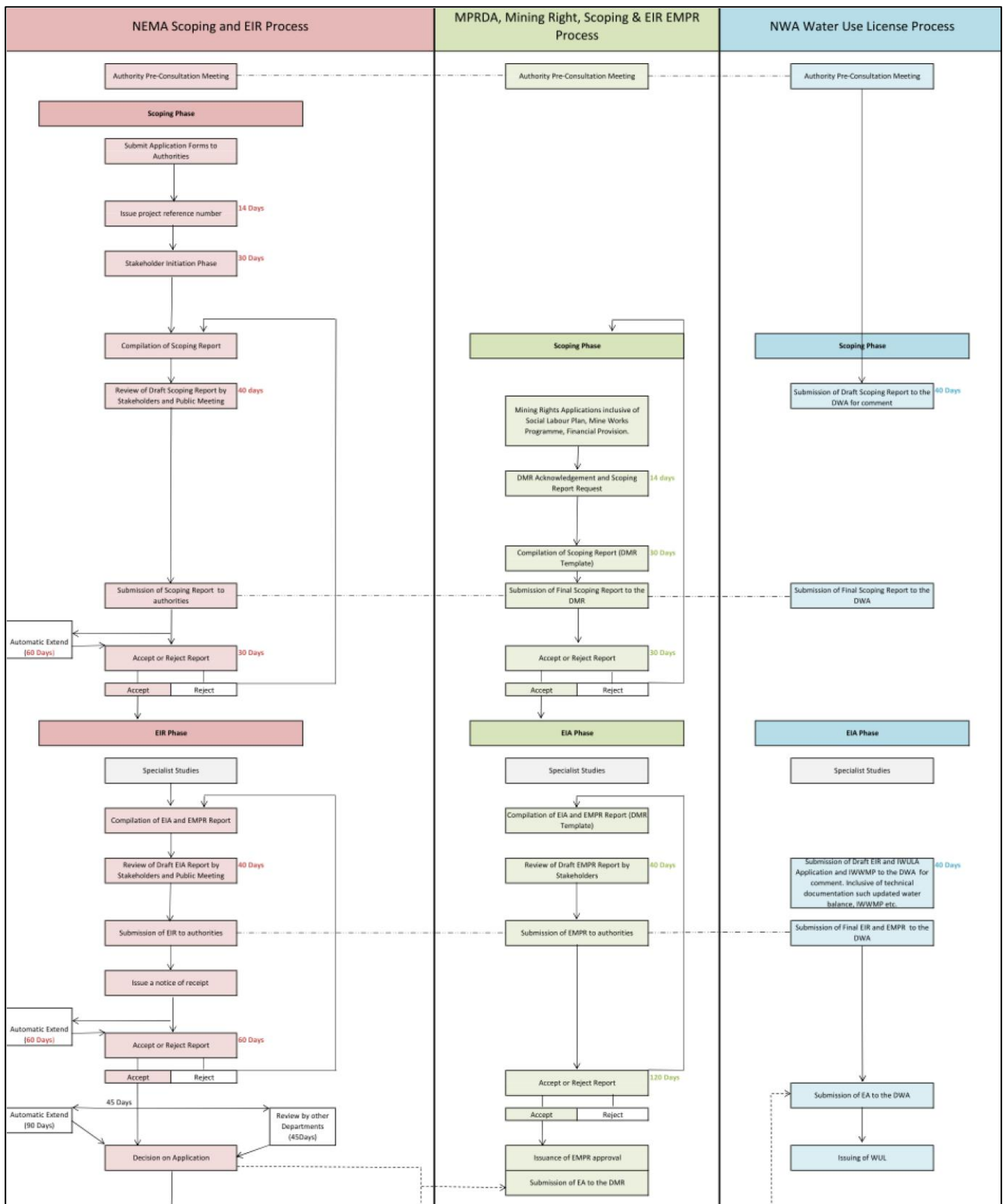


Figure 1-3: Integrated Authorisation Process

1.5 Role Players

1.5.1 Project Proponent

The Project Proponent is Anglo Operations Limited: Isibonelo Colliery. **Table 1-1** provides the contact details of the Isibonelo Colliery environmental co-ordinator, the Isibonelo Colliery mine manager and the land manager at AAC head office.

Table 1-1: Project Proponent Contact Details

Environmental Co-ordinator:	Details:
Company Registration:	Anglo Operations Limited
Contact Person:	Mr Kenneth Mokoena
Postal Address:	Private Bag X 701, Trichardt, 2300 South Africa
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Fax:	017 620 2759
E-mail:	Kenneth.mokoena@angloamerican.com
Mine Manager:	Details:
Company Registration:	Anglo Operations Limited
Contact Person:	Mr Dirk Miller
Postal Address:	Private Bag X 701, Trichardt, 2300 South Africa
Telephone:	017 620 2700
Fax:	017 620 2759
E-mail:	Dirk.miller@angloamerican.com
Land Manager:	Details:
Company Registration:	Anglo Operations Limited
Company VAT Number:	4710102072
Contact Person:	Fanie Kitching
Postal Address:	Property & Estates House 105, Landau Village, Old Landau Colliery Rd, Witbank, 1034
Telephone:	013 691 5488
Fax:	013 691 5660
E-mail:	fanie.kitching@angloamerican.com

1.5.2 Environmental Assessment Practitioner

WSP Environment and Energy (WSP) was appointed by Isibonelo Colliery to fulfil the role of the independent EAP to facilitate the environmental authorisation process. **Table 1-2** details the relevant contact details of the EAP while **Table 1-3** provides the details of the supporting specialist.

WSP Global Inc. is a global, world-class multi-disciplinary consultancy, with combined revenues of £1.1 billion and approximately 14,500 employees working in over 300 offices in 35 countries, with stated strategic ambitions to further diversify and grow.

In Africa, WSP is a leading environmental consultancy with a broad range of expertise and over 20 years' experience in the regional market. As part of a global business, we provide the marketplace with a dynamic blend of local knowledge and global expertise. We offer independent, insightful and professional advice to our clients to achieve a balance between environmental protection, social desirability and economic development.

At WSP we have a reputation for delivery and excellence and provide a diverse range of integrated and innovative solutions to both public and private sector clients across the industrial, mining, infrastructure and financial sectors. WSP is committed to transformation in our operational region, with 26% Broad Based Black Economic Empowerment (BBBEE) ownership and having achieved Level 4 BBBEE certification in South Africa.

Table 1-2: Details of the Environmental Assessment Practitioner

Environmental Assessment Practitioner (EAP)	
Company	WSP Environmental (Pty) Ltd
Company Registration:	1995 / 08790 / 07
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Telephone:	011 361 1371
Fax:	086 55 66 336
E-mail:	Janna.Bedford-Owen@wspgroup.co.za

Table 1-3: List of the Specialists

Component	Company	Contact person	Telephone	Email
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		Nicola Enslin	011 361 1479	nicola.enslin@wspgroup.co.za
Hydrology		Greg Matthews	031 240 8866	greg.matthews@wspgroup.co.za
		Andrew Gemmel	031 240 8889	andrew.gemmel@wspgroup.co.za
Social		Danielle Michel	031 240 8869	danielle.michel@wspgroup.co.za
Blasting and Vibration		Blast management	Danie Zeeman	012 662 1945
Heritage (archaeology)	Archaeos CC	Dr Anton van Vollenhoven	-	antonv@archaeos.co.za
Biodiversity and Wetlands	Natural Scientific Services CC	Kathy Taggart	011 787 7400	kathy@nss-sa.co.za
		Susan Abell	011 787 7400	susan@nss-sa.co.za
Geohydrology	JMA Consulting	Jaco van der Berg	013 665 1788	Jaco@jmaconsult.co.za
Land capability & land use	Earth Science Solutions	Ian Jones	013 753 2746	ian@earthscience.co.za

1.5.3 Competent Authorities

The MDEDET is the delegated competent authority for the environmental authorisation application in terms of the NEMA while the DWA is the delegated competent authority for consideration of the WUL Application and the DMR is the competent authority for consideration of the mining right amendment application and EMPR Amendment. **Table 1-4** provides the contact details of the authorities involved with the decision-making processes associated with the proposed Block Z project.

Table 1-4: Competent Authorities

Mpumalanga Department of Economic Development, Environment and Tourism	
Contact Person:	Charity Mthimunye (or Selape Lentswane)
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E-mail:	cmthimunye@mpg.gov.za (or ismatawana@mpg.gov.za)
Department of Mineral Resources	
Contact Person:	Fhatuwani Muronga
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Telephone:	013 653 0500
Fax:	-
E-mail:	fhatuwani.Muronga@dmr.gov.za
Department of Water Affairs	
Contact Person:	Pinky Monyela
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2 Regulatory Context

2.1 The Constitution of South Africa (No. 108 of 1996)

Since 1994 South African legislation, including environmental legislation has undergone a large transformation and various laws and policies were promulgated with a strong emphasis on environmental concerns and the need for sustainable development. The Constitution of South Africa (No. 108 of 1996) (The Constitution) provides environmental rights (contained in the Bill of Rights, Chapter 2 (Section 24)) and includes implications for environmental management. The environmental rights are guaranteed in Section 24 of the Constitution, and state that:

“Everyone has the right –

- *To an environment that is not harmful to their health or well-being and*
- *To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:*
 - *Prevent pollution and ecological degradation;*
 - *Promote conservation and*
 - *Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”*

The Constitution cannot manage environmental resources as a stand-alone piece of legislation hence additional legislation has been promulgated in order to manage the various spheres of both the social and natural environment. Each promulgated Act and associated Regulations are designed to focus on various industries or components of the environment to ensure that the objectives of the Constitution are effectively implemented and upheld on an on-going basis throughout the country. In terms of Section 7, a positive obligation is placed on the State to give effect to the environmental rights.

2.2 Minerals and Petroleum Resources Development Act (No. 28 of 2002)

2.2.1 Objectives

In terms of the previous mining legislation in South Africa (The Minerals Act (No. 50 of 1991)), mineral rights were held privately and in some instances, by the state. The MPRDA now vests all mineral rights in the State.

The MPRDA concerns equitable access to, and sustainable development of, South Africa’s mineral and petroleum resources. The MPRDA makes provision for sustainable mining and requires:

- That every person who has applied for a mining right must conduct an EIA, determine the environmental baseline, and submit an Environmental Management Programme to the DMR;
- That every holder of a mining reconnaissance permit, prospecting right, mining right, mining permit or retention permit must assess and communicate the impacts of the activity on the environment;
- The need to rehabilitate the environment affected by prospecting or mining operations to its natural or predetermined state; and
- That the directors of the mining company are liable for unacceptable impacts on the environment.

2.2.2 Applicability

In terms of Section 5 of the MPRDA no person may mine any area without:

- A mining right;
- An approved EMPR; and
- Notifying and consulting with the landowner.

Isibonelo Colliery is currently in possession of a mining right and an approved consolidated EMPR for the existing opencast operations (DMR ref no. OT6/2/2/447MP30/5/1/2/3/2/1) (130) EM). The requirements of the MPRDA have therefore been met by Isibonelo Colliery in terms of the existing mining operations.

However, the proposed Block Z project is not included in the above mining right or approved EMPR. Isibonelo Colliery is therefore required to complete the below prior to the commencement of Block Z project activities:

- Lodge a mining right transfer application with the DMR in terms of Section 22 of the MPRDA;
- Lodge a mining right application with the DMR in terms of Section 11 of the MPRDA;
- Conduct an S&EIR process and compile an EMPR in terms of Section 39 and 102 of the MPRDA and Section 47 – 55 of the GNR 527, and submit such to the DMR;
- Notify and consult with the landowner in terms of Section 27 of the MPRDA.

In the case of the proposed Block Z project, the NEMA and the MPRDA requirements will be aligned to prevent reporting duplication to the competent authority.

The Mpumalanga DMR will be responsible for reviewing the mining right (new and transfer) applications and EMPR Amendment for the proposed Block Z project.

2.3 National Environmental Management Act (No. 107 of 1998)

2.3.1 Objectives

The NEMA is South Africa's overarching environmental legislation and has, as its primary objective, to provide for co-operative governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state and to provide for matters connected therewith.

The NEMA provides for the Constitutional right to an environment that is not harmful to the health and well-being of South African citizens, the equitable distribution of natural resources, sustainable development, environmental protection and the formulation of environmental management frameworks.

2.3.2 Applicability

In terms of Section 24(2) of the NEMA the Minister of the Department Environmental Affairs (DEA) may identify activities which may not commence without prior authorisation from the Minister or Member of the Executive Committee (MEC) and may also identify geographical areas in which specified activities may not commence without prior authorisation from the Minister or MEC. The Minister of the DEA thus published listed activities in GNR 544 (Listing Notice 1), 545 (Listing Notice 2) and 546 (Listing Notice 3) (18 June 2010 as amended 2013) that may not commence prior to authorisation from the Minister or MEC. The regulations outlining the procedures required for authorisation are published in GNR 543 (EIA Regulations) (18 June 2010), namely:

- GNR 544 identifies activities that require a Basic Assessment (BA) process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity;
- GNR 545 identifies activities that require an S&EIR process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity; and
- GNR 546 identifies activities within specific geographical areas that require a BA process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity.

WSP reviewed the NEMA EIA listed activities (GNR 544, 545 and 546) and identified potential activities that may be relevant to the proposed Block Z project. These potentially applicable activities are listed in **Table 2-1**.

Table 2-1: Applicable listed activities in terms of GNR 544 and 545

Regulation	Activity Description	Relevance
GNR 544 (18 June 2010)	<p><i>Activity 9:</i></p> <p>The construction of facilities or infrastructure exceeding 1000m in length for the bulk transportation of water, sewage or stormwater:</p> <p>i) with an internal diameter of 0.36m or more</p> <p>ii) with a peak throughput of 120 litres per second or more</p>	<p>The proposed mining of Block Z will require additional infrastructure, which may include the construction of a pipeline for the transportation of water that may exceed a 1000m in length or have an internal diameter of 0.36m or more.</p>
	<p><i>Activity 10:</i></p> <p>The construction of facilities or infrastructure for the transmission and distribution of electricity, (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more</p>	<p>The proposed Block Z area adjacent to the Dwars-in-die-wegspruit. While efforts will be undertaken to ensure that construction of infrastructure remains further than 32m from the watercourse; the potential exists for construction activities to occur within the 32m line.</p>
	<p><i>Activity 11:</i></p> <p>The construction of:</p> <ol style="list-style-type: none"> i. canals; ii. channels; iii. bridges; iv. dams; v. weirs; vi. bulk storm water outlet structures; vii. marinas; viii. jetties exceeding 50 square metres in size; ix. slipways exceeding 50 square metres in size; x. buildings exceeding 50 square metres in size; or xi. infrastructure or structures covering 50 square metres or more <p>where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>The proposed Block Z area lies adjacent to a watercourse. While efforts will be undertaken to ensure that construction of infrastructure remains further than 32m from the watercourse; the potential exists for construction activities to occur within the 32m line.</p>
	<p><i>Activity 37</i></p> <p>The expansion facilities or infrastructure for the bulk transportation of water, sewage or storm water, where:</p> <ol style="list-style-type: none"> i. the facility or infrastructure is expanded by more than 1000 metres in length. ii. where the throughput capacity of the facility or infrastructure will be increased by 10% or more. <p>excluding where such expansion:</p> <ul style="list-style-type: none"> ■ relates to transportation of water, sewage or storm water within a road reserve. ■ where such expansion will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse. 	<p>Isibonelo Colliery is an established coal mine with existing infrastructure for the transportation of water, sewage and storm water. Depending on the final mine plan design, it is possible that the established pipelines may be extended by a length greater than 1000m to accommodate the proposed Block Z mining area.</p>
	<p><i>Activity 47:</i></p> <p>The widening of a road by more than 6m, or the lengthening of a road by more than 1km -</p>	<p>The proposed Block Z area lies outside an urban area and does not currently have an access road. An existing mine access road may be extended by greater than 1km and / or widened by greater than 6m to reach the Block Z area.</p>

Reguation	Activity Description	Relevance
	i) where the existing reserve is wider than 13.5m; or ii) where no reserve exists, where the existing road is wider than 8m	
GNR 545 (18 June 2010)	Activity 15: Physical alteration of undeveloped land for industrial use where the total area to be transformed is greater than 20 hectares (ha).	The proposed mining of the Block Z area will require the transformation of an area greater than 20ha (approximately 67.7ha).
	Activity 20: Any activity which requires a mining right or renewal thereof as contemplated in sections 22 and 24 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	Isibonelo Colliery will require a mining right for the proposed open cast mining of the proposed Block Z Area.

Therefore S&EIR process is required in accordance with the NEMA EIA Regulations, namely GNR 544 and 545. An application to undertake a S&EIR process was submitted to the competent authority (MDEDET) which subsequently issued a letter of acknowledgement and reference number (17/2/3N-632) dated 27 May 2014 (**Appendix A**).

2.4 National Environmental Management Waste Act (No. 59 of 2008)

2.4.1 Objectives

The National Environmental Management Waste Act (No. 59 of 2008) (NEM:WA) serves to reform the law regulating waste management in order to protect human health and the environment. This is managed by providing reasonable measures for the prevention of pollution and ecological degradation. The NEM:WA aims to secure ecologically sustainable development while promoting justifiable economic and social development. The NEM:WA provides national norms and standards for regulating the management of waste by all spheres of government, for specific waste management measures and for matters incidental thereto.

The Act also promotes:

- Economic and sustainable development;
- Effective delivery of waste services;
- Remediation of contaminated land; and
- Integrated waste management.

2.4.2 Applicability

Section 20 of the NEM:WA states that no person may commence, undertake or conduct a waste management activity except in accordance with a Waste Management License (WML). A list of waste management activities that require a WML was published in GNR 921 (29 November 2013). GNR 921 states that a person who wishes to commence with a waste management activity must undertake the required BA or S&EIR process in accordance with NEMA EIA Regulations GNR 543 or conduct such activities in accordance with relevant / applicable National Norms and Standards. GNR 921 provides for:

- Category A identifies activities that require a Basic Assessment (BA) process to be undertaken in terms of the NEMA EIA Regulations, prior to commencement of that activity;
- Category B identifies activities that require an S&EIR process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity; and

-
- Category C identifies activities that require adherence to the relevant National Norms and Standards as published.

Following review of the listed activities contained in GNR 921, WSP ascertained that the proposed Block Z project will not include Category A or B waste management activities and will therefore not require a WML. Where applicable, the National Norms and Standards will be adhered to by Isibonelo Colliery including but not limited to:

- GNR 635 - National Norms and Standards for the Assessment of Waste for Landfill Disposal;
- GNR 636 - National Norms and Standards for the Disposal of Waste to Landfill;
- GNR 926 - National Norms and Standards for the Storage of Waste; and
- GNR 331 - National Norms and Standards for the Remediation of Contaminated Land and Soil Quality.

2.5 National Environmental Management Air Quality Act (No. 39 of 2004)

2.5.1 Objectives

The National Environmental Management Air Quality Act (No. 39 of 2004) (NEM:AQA) states that its primary objective is to reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government, for specific air quality measures, and for matters incidental thereto.

2.5.2 Applicability

The NEM:AQA requires the Minister of the DEA to publish a list of activities which results in atmospheric emissions which may have a detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage. Section 22 of NEM:AQA requires that an Atmospheric Emissions Licence (AEL) be obtained for such listed activities.

In terms of GNR 893 (22 November 2013), category 5 (mineral processing, storage and handling), subcategory 5.1 (storage and handling of ore and coal) requires an AEL only in the event that these facilities are “not situated on the premises of a mine or works as defined in the Mines Health and Safety Act 29 / 1996”. Therefore an AEL is not applicable to the proposed Block Z project as it will occur within a mine lease area and coal will be fed into the existing operations for storage, handling and transfer as required.

2.5.3 Highveld Priority Area

The Minister of Environmental Affairs and Tourism formally declared the eastern part of Gauteng and western part of Mpumalanga an air pollution hotspot, to be known as the “the Highveld Priority Area”, a national air pollution hotspot in terms of Section 18(1) of the NEM:AQA . By declaring a priority area, authorities recognise that Air Quality within these areas are generally regarded as being poor, and frequently meet or exceed ambient air quality standards.

The Highveld Priority Area extends from the eastern parts of Gauteng, to Middelburg in the north and the edge of the escarpment in the south and east. Major towns occurring within this region include Witbank, Middelburg, Secunda, Standerton, Edenvale, Boksburg, Benoni and Balfour. The area incorporates portions of the Gauteng and Mpumalanga Provinces. The area is contained within 1 metropolitan municipality (Ekurhuleni) and 3 district municipalities (Sedibeng, Gert Sibande and **Nkangala**) and more specifically 9 local municipalities: Lesedi Local Municipality (Sedibeng); Govan Mbeki Local Municipality (Gert Sibande); Dipaleseng Local Municipality (Gert Sibande); Lekwa Local Municipality (Gert Sibande); Msukaligwa Local Municipality (Gert Sibande);

PrixleykaSeme Local Municipality (Gert Sibande); Delmas Local Municipality (Nkangala); **eMalahleni Local Municipality** (Nkangala); and Steve Tshwete Local Municipality (Nkangala).

The proposed Block Z project is located within the Nkangala District and the eMalehleri Local Municipalities, and therefore falls within the boundaries of the Highveld Priority area. This implies that authorities may impose measures on Isibonelo Colliery and other mines and industries within this area in order to allow for the improvement of the Air Quality.

2.6 National Water Act (No. 36 of 1998)

2.6.1 Objectives

The NWA provides for fundamental reformation of legislation relating to water resources and use. The preamble to the Act recognises that the ultimate aim of water resource management is to achieve sustainable use of water for the benefit of all users and that the protection of the quality of water resources is necessary to ensure sustainability of the nation's water resources in the interests of all water users. The purpose of the NWA is stated, in Section 5 as, *inter alia*:

- Promoting the efficient, sustainable and beneficial use of water in the public interest;
- Facilitating social and economic development;
- Protecting aquatic and associated ecosystems and their biological diversity;
- Reducing and preventing pollution and degradation of water resources; and
- Meeting international obligations.

2.6.2 Applicability

Section 22(1) of the NWA states that a person may only use water if the water use is authorised by a licence under NWA or if the responsible authority has dispensed with a licence requirement if it is satisfied that the purpose the NWA will be met by the granting of a licence, permit or other authorisation under any other law.

A person may only use water without a licence if the water use is permissible:

- Under Schedule I of NWA;
- As a continuation of an existing lawful use; and
- In terms of a general authorisation issued under Section 39 of NWA.

Isibonelo Colliery was issued a WUL (Ref: 16/2/7/B101/C32/1, License Number: 24084884) for the existing operations on 21 November 2008. However, the water use activities proposed for Block Z will not occur on the same properties as the existing operations and as listed in the WUL.

Therefore, a WUL is required in terms of Section 41 of the NWA for activities listed in Section 21 of the same Act. The water uses potentially applicable to the proposed Block Z project are included in **Table 2-2**.

Table 2-2: Water use activities potentially applicable in terms of Section 21 of the NWA

Listed Activity	Water Use Description	Relevance
Section 21(c):	Impeding or diverting the flow of water in a water course.	The proposed Block Z project is located in close proximity to the Dwars-in-die-wegspruit and thus may impede, divert flow and / or alter the bed, bank course or characteristics of a water course.
Section 21(i):	Altering the bed, bank, course or characteristics of a watercourse.	
Section 21(j):	Removing, discharging or disposing of water found underground if it is necessary for the efficient	The proposed Block Z open cast pit may require removal of water during construction and operation

	continuation of an activity or for the safety of people.	to provide for safe working conditions.
Section 21(g)	Disposing of waste in a manner which may detrimentally impact on a water resource	Any water removed from the proposed Block Z open cast pit may be considered dirty and require storage by Isibonelo Colliery.

2.6.3 Government Notice Regulation 704

GNR 704 (4 June 1999) of the NWA provides regulations on the use of water for mining and mining related activities aimed at the protection of water resources. GNR 704 further places restrictions on mining activities including *inter alia*:

- Regulation 4: Restrictions on locality;
- Regulation 5: Restrictions on use of material;
- Regulation 6: Capacity requirements of clean and dirty water separation systems;
- Regulation 7: Protection of water resources;
- Regulation 8: Security and additional measures;
- Regulation 9: Temporary or permanent cessation of mine or activity;
- Regulation 11: Additional regulations for rehabilitation of coal residue deposits; and
- Regulation 12: Technical investigation and monitoring.

Following from the above, Isibonelo Colliery will be required to ensure that the requirements of GNR 704 are adhered to for the proposed Block Z project particularly in relation to Regulation 4 which states the no person in control of a mine may:

- Locate or place 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 estuary, borehole or well, excluding boreholes or wells drilled specifically to monitor the pollution of groundwater, or on water-logged ground, or on ground likely to become water-logged, undermined, unstable or cracked;
- Place or dispose of any residue or substance which causes or is likely to cause pollution of a water resource, in the workings of any underground or opencast mine excavation, prospecting diggings, pit or any other excavation; and
- 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 or estuary.

Further to the above, Isibonelo Colliery is required to ensure that clean and dirty water areas are located within the mine lease area (including the proposed Block Z project) and ensure continued clean and dirty water management. The design, construction, maintenance and operation of the clean and dirty water management system will need to consider the 1:50 year flood event and the requirement for an adequate freeboard.

The clean and dirty water management system design plans, incorporating the proposed Block Z project, will be submitted to the competent authority as part of the WULA and EIR for consideration (DWA will be required to comment and approve these designs).

2.7 National Environmental Management Biodiversity Act (No. 10 of 2004)

2.7.1 Objectives

The National Environmental Management Biodiversity Act (No. 10 of 2004) (NEM:BA), in line with the Convention on Biological Diversity (CBD), aims to legally provide for biodiversity conservation, sustainable use and equitable access and benefit sharing. The NEM:BA creates a basic legal framework for the formation of a national biodiversity strategy and action plan and the identification of biodiversity hotspots and bio-regions which will then be given legal recognition. The NEM:BA imposes obligations on landowners (state or private) governing alien invasive species as well as regulating the introduction of genetically modified organisms.

The NEM:BA ensures that provision is made to remove any aliens which have been introduced to the site or are present on the site. Furthermore, the NEM:BA serves to regulate bio-prospecting, making provision for communities to share the profits of any exploitation of natural materials involving indigenous knowledge. The South African National Biodiversity Institute (SANBI) was established to enforce the objectives as set out in the NEM:BA.

2.7.2 Applicability

Sections 52(1)(a) and 56(1) of the NEM:BA state that the Minister may publish national lists of species and ecosystems, respectively, that are threatened or are in need of protection. A list of species that are threatened or are in need of protection was published in GNR 151 (23 February 2007), with GNR 152 (23 February 2007) detailing the regulations relating to such species. These regulations are imposed where restricted activities involve specimens of listed threatened or protected species. GNR 152 defines the requirements of permitting and the process related thereto. At this stage the presence of any threatened or protected species cannot be confirmed. The biodiversity and wetland impact assessment, to be completed as part of the EIR Phase, of the S&EIR process will confirm whether or not the proposed Block Z project may require permitting in accordance with NEM:BA.

2.8 National Environmental Management Protected Areas Act (No. 57 of 2003)

2.8.1 Objectives

The National Environmental Management Protected Areas Act (No. 57 of 2003) (NEM:PAA) concerns the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes, and includes *inter alia*:

- The establishment of a national register of all national, provincial and local protected areas;
- The management of those areas in accordance with national standards; and
- Inter-governmental co-operation and public consultation in matters concerning protected areas.

2.8.2 Applicability

Sections 48 to 53 of the NEM:PAA lists restricted activities that may not be conducted in a protected area. Section 48 states that no person may conduct commercial prospecting or mining activities in a:

- Special nature reserve or nature reserve;
- Protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs; and

■ Protected area referred to in Section 9:

- (b) world heritage sites; and
- (d) specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act (No. 84 of 1998);

The proposed Block Z project is zoned mining and therefore not located with a protected area as defined in the above listed legislature.

It is not anticipated that any protected areas lie within the proposed Block Z area, however this will be verified through the completion of a biodiversity and wetland impact assessment during the EIR phase of the S&EIR process.

2.9 National Heritage Resources Act (No. 25 of 1999)

2.9.1 Objectives

The National Heritage Resources Act (No. 25 of 1999) (NHRA) aims to protect heritage resources of national significance. The NHRA provides for an integrated and interactive system for the management of the national heritage resources and empowers civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations. Furthermore, the Act established the South African Heritage Resources Agency (SAHRA) which was established in 1999 to fulfil the objectives of the NHRA.

2.9.2 Applicability

Section 38 of the NHRA details specific activities that require a heritage impact assessment be completed and submitted to the SAHRA for consideration prior to commencement. The listed heritage activities identified as potentially applicable to the proposed Block Z project are contained within **Table 2-3**.

Section 48(2) requires a permit from the SAHRA to perform such actions at such time and subject to such terms, conditions and restrictions or directions as may be specified in the permit. The actions applicable to this project are outlined in **Table 2-3**.

The NHRA further provides for the processes where human remains are identified and subdivides graves and burial grounds into the following:

- a) ancestral graves;
- b) royal graves and graves of traditional leaders;
- c) graves of victims of conflict;
- d) graves designated by the Minister;
- e) historical graves and cemeteries; and
- f) human remains;

In terms of Section 36(3) of the NHRA, no person may, without a permit issued by the relevant heritage resources authority, undertake the identified activities as listed in **Table 2-3**:

Table 2-3: NHRA Sections 34, 38 and 48

Section in NHRA	Activity	Relevance to the Block Z project
Section 36	a) Destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;	During the proposed Block Z establishment, there is a potential that graves may be encountered in which case Section 36 will be applicable.
	b) Destroy, damage, alter, exhume or remove from	

Section NHRA	in Activity	Relevance to the Block Z project
	<p>its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or</p> <p>c) Bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.</p>	
Section 38	1(a) The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.	The Block Z project may involve the construction and alteration of a linear development in the form of a road(s), a powerline, a pipeline, a canal and a stormwater berm therefore this activity may be applicable.
	<p>1(c) Any development or other activity which will change the character of a site:</p> <ul style="list-style-type: none"> ■ Exceeding 5 000m² in extent. ■ Involving three or more existing erven or subdivisions. 	The Block Z project will impact an area of approximately 677408 m ² , therefore this activity is applicable.
	1(d) The re-zoning of a site exceeding 10 000m ² in extent.	The Block Z project will involve the re-zoning of the site, therefore this activity will be triggered.
Section 48	<p>2. Any development of the site where “development” means any physical intervention, excavation, or actions, other than those caused by natural forces, which results in a change to the nature, appearance or physical nature of a place, or influences its stability and future well-being, including:</p> <ul style="list-style-type: none"> ■ Construction, alteration, demolition, removal or change of use of a place or a structure at a place. ■ Carrying out any works on or over or under a place. ■ Any change to the natural or existing condition or topography of land. ■ Any removal or destruction of trees, or removal of vegetation or topsoil. 	<p>During the construction phase of the Block Z project, the project will result in the following:</p> <ul style="list-style-type: none"> ■ Construction of supporting infrastructure and the alteration of undeveloped land. ■ Carrying out any works on a place. ■ The removal of vegetation and topsoil in order to establish the site. <p>During the operational phase of the Block Z project, the project will result in the following:</p> <ul style="list-style-type: none"> ■ A change to the topography of the land due to the extraction of overburden and the underlying coal seam. ■ The removal of vegetation and topsoil depending on the progress made during the construction phase.

All graves older than 60 years are called heritage graves and should be handled by an archaeologist. This includes archaeological graves, which are older than 100 years. Unidentified / unknown graves (which refers to date of death) are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the Ordinance on Excavations (Ordinance no. 12 of 1980) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the Human Tissues Act (Act 65 of 1983 as amended).

Following from the above, as the proposed Block Z project will undertake activities above the listed thresholds provided in Section 38 of the NHRA, a Heritage Impact Assessment is required.

Should a Section 36 or 48 permit be required (as identified as necessary following completion of the Heritage Impact Assessment [HIA]), Isibonelo Colliery will be required to submit such the SAHRA for approval prior to commencement of the actions contained in **Table 2-3**. The permit may contain conditions and restrictions which will direct the manner in which these actions are performed as part of the proposed Block Z project and will inform the EMPR as applicable.

2.10 Conservation of Agricultural Resources Act (No. 43 of 1983)

2.10.1 Objectives

The Conservation of Agricultural Resources Act (No. 43 of 1983) (CARA) includes the use and protection of land, soil, wetlands and vegetation and the control of weeds and invader plants. This is the only legislation that is directly aimed at conservation of wetlands in agriculture.

In 1984, regulations were passed in terms of the CARA regulations declaring about 50 species “weeds” or “invader plants”. On 30 March 2001 the Minister of Agriculture promulgated an amendment to these regulations. This amendment now contains a comprehensive list of species that are declared weeds and invader plants dividing them into three categories. These categories are as follows:

- Category 1: Declared weeds that are prohibited on any land or water surface in South Africa. These species must be controlled, or eradicated where possible;
- Category 2: Declared invader species that are only allowed in demarcated areas under controlled conditions and prohibited within 30m of the 1:50 year floodline of any watercourse or wetland; and
- Category 3: Declared invader species that may remain, but must be prevented from spreading. No further planting of these species are allowed.

In terms of the amendments to the regulations under the CARA, landowners are legally responsible for the control of alien species on their properties. Various Acts administered by the DEA and DWA, as well as other laws (including local by-laws), spell out the fines, terms of imprisonment and other penalties for contravening the law. Although no fines have yet been placed against landowners who do not remove invasive species, the authorities may clear their land of invasive alien plants and other alien species entirely at the landowners cost and risk.

2.10.2 Applicability

The protection of land, soil, wetlands and vegetation and the control of weeds and invader plants is currently a commitment in Isibonelo Colliery's' approved EMPR. Furthermore, Isibonelo Colliery has implemented an off-site rehabilitation plan to compensate for the damage to on-site wetland areas as a result of previous and current mining activities. Specific management measures for the conservation of agricultural resources and the prevention of the establishment of weed species will be included in the project EMPR Amendment Report and the areas disturbed from mining activities will be rehabilitated to a predefined land use concurrent to mining activities.

2.11 National Veld and Forest Fire Act (No 101 of 1998)

2.11.1 Objectives

The purpose of the National Veld and Forest Fire Act (No. 101 of 1998) (NVFFA) is to prevent and combat veld, forest and mountain fires throughout South Africa. More specifically, Chapter 4 places a duty on owners to prepare and maintain firebreaks, as well as lays out the procedures, the role of adjacent land owners and the

fire protection association(s). Chapter 5 of the NVFFA further places a duty on all owners to acquire and have available equipment and personnel to fight fires. In addition, this Act allows certain persons / officials permission to enter land and fight fires in an emergency and provides for integration between owners, fire protection associations and the Minister in the case of fire.

2.11.2 Applicability

Isibonelo Colliery has already established and continues to maintain firebreaks as applicable to its properties, and ensures continued liaisons with surrounding land owners in this regard. The proposed Block Z project is to be located south west of the existing operation and will require that the land on which it is located adheres to the NVFFA in terms of firebreak development, maintenance and engagement with adjacent land owners.

2.12 Fencing Act (No. 31 of 1963)

2.12.1 Objectives

The aim of the Fencing Act (No. 31 of 1963) (Fences Act) is to consolidate the laws relating to fences and the fencing of farms and other holdings. When a landowner erects a fence in a designated area, he / she may insist that the adjacent owner make a contribution towards the erection or maintenance costs. In areas where contributions are not mandatory / have not been published in the Government Gazette, a contribution can be claimed from the adjacent owner if the fence offers beneficial use for such a person. The Act also makes provision for a mechanism to deal with disputes between adjacent owners regarding a contribution towards erecting or repairing a fence.

2.12.2 Applicability

Section 17 requires that any person erecting a boundary fence may clear any bush along the line of the fence up to 1.5 metres on each side thereof and remove any tree standing in the immediate line of the fence. However, this provision must be read in conjunction with the environmental legal provisions relevant to the protection of flora.

The proposed Block Z project will require either the erection of new or the upgrade to existing in order to prevent unauthorised access to the proposed mining activities. Where applicable, Isibonelo Colliery will be cognisant of the requirements as stipulated in the Fences Act.

2.13 Hazardous Substances Act (No. 15 of 1979)

2.13.1 Objectives

The object of the Act is *inter alia* to 'provide for the control of substances which may cause injury or ill health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitising or flammable nature or the generation of pressure thereby in certain circumstances; for the control of electronic products; for the division of such substances or products into groups in relation to the degree of danger; for the prohibition and control of such substances.'

In terms of the Act, substances are divided into schedules, based on their relative degree of toxicity, and the Act provides for the control of importation, manufacture, sale, use, operation, application, modification, disposal and dumping of substances in each schedule.

2.13.2 Applicability

Dangerous substances contained on-site during the construction phase of the proposed Block Z project will need to be managed in accordance with the Act and safety data sheets (SDS) will need to accompany all dangerous goods (hydrocarbon fuels, cleaning chemicals, paints, etc.).

2.14 South African Bureau of Standards (SABS)

2.14.1 Objectives

The South African National Standards (SANS) 10328:2008 "Methods for environmental noise impact assessments" is in accordance with the current National Environmental Management Act (NEMA) and prescribes the steps to follow in the process of conducting an Environmental Noise Impact Assessment. An EIA is being conducted as part of the Tumela Central Shaft Project and thus Section 8 should be followed "Environmental noise impact investigation and assessment", and the key points listed in section 8.7 should be addressed in the report:

h) an explanation, either by a brief description or by brief reference, of all measuring and calculation procedures that were followed, as well as any possible adjustments to existing measuring methods that had to be made, together with the results of the calculations;

i) an explanation, either by a brief description or by brief reference, of all measuring or calculation methods (or both) that were used to determine existing and predicating rating levels, as well as other relevant information, including a statement of how the data were obtained and applied to determine the rating level of the area in question;

2.14.2 Applicability

The noise levels stipulated in the SANS 10103:2008 - Typical Rating Levels for Noise in Districts guidelines are presented in **Table 2-4**. These values should be viewed as guidelines of typical noise levels that are likely to be experienced in the various land use zones. Noise levels within the direct vicinity of the mine will be assessed against the guideline for industrial districts, whilst the noise levels within communities (residential areas) will be assessed against the suburban guideline. Although these communities are not typically suburban, this is the most representative guideline as these communities cannot be classified as rural or urban.

Table 2-4: Typical rating levels for noise in districts (adapted from SANS 10103:2008)

Type of District	Classification	Equivalent Continuous Rating level for Noise ($L_{Req, T}$) (dBA)		
		Outdoors		
		Day – Night ($L_{R, dn}$)	Day-time ($L_{req, d}$)	Night-time ($L_{req, n}$)
a) Rural	A	45	45	35
b) Suburban (with little road traffic)	B	50	50	40
c) Urban	C	55	55	45
d) Urban (with one or more of the following: workshops, business premises and main roads)	D	60	60	50
e) Central Business Districts	E	65	65	55
f) Industrial District	F	70	70	60

Those guidelines highlighted in red and bold are the guidelines applicable to this noise assessment

2.15 Provincial Ordinances and Municipal By-laws

In addition to national legislation, some of South Africa's nine provinces have their own provincial biodiversity legislation, as nature conservation is a concurrent function of national and provincial government in terms of the Constitution of South Africa.

As noted in Sections 2.7 and 2.8 above, the proposed Block Z project is located in an area zoned for mining and therefore it is not anticipated that any protected areas or species lie within the same area; however this will be verified during the EIR phase and following the completion of a biodiversity and wetland impact assessment. The below legislation was considered during the scoping phase and if determined applicable, will be incorporated into the EIR phase for further consideration during the EMPRs compilation.

2.15.1.1 Mpumalanga Parks Board Act (No. 6 of 1995)

The Mpumalanga Parks Board was established in terms of the Mpumalanga Parks Board Act (No.6 of 1995) as amended. The objectives of this Act are *inter alia* as follows:

- To provide effective conservation management of natural resources of the Mpumalanga Province;
- To promote the creation of economic and employment opportunities in pursuit of nature conservation and biodiversity;
- To ensure that natural systems, biodiversity and ecological functions and processes in the Mpumalanga Province are maintained;
- To determine and enforce limits to sustainable utilization of natural resources;
- To contribute to the advancement of scientific knowledge, and facilitate Technology transfer in respect of conservation; and
- Provide information and extension services to the public on conservation management, problem species, legal aspects of conservation and other conservation matters.

This Act makes provisions for the appointment of the Board of Directors to be responsible for the administration of the Mpumalanga nature conservation and biodiversity.

2.15.1.2 Mpumalanga Conservation Act (No. 10 of 1998)

To consolidate and amend the laws relating to nature conservation within the Province and to provide for matters connected therewith. Aspects included in the Act include, but are not limited to, administration of wild animals, administration of fisheries, administration of indigenous plants, endangered and rare species of fauna and flora (including protected ecosystems, plants and unique communities).

2.15.1.3 Mpumalanga Parks and Tourism Agency Act (No. 5 of 2005)

This Act provides for the establishment of the Mpumalanga Tourism and Parks Agency and for the management thereof by a Board; to provide for the sustainable development and improvement of the tourism industry in Mpumalanga; to provide for conservation management of the natural resources of Mpumalanga; to confer powers and functions upon the Agency; to provide for the registration of certain persons and entities directly involved in tourism; to provide for transitional arrangements; and to provide for matters incidental thereto.

2.16 Applicable Guidelines and Forums

Following from the above sections highlighting the potentially relevant national and provincial legislation, WSP also considered the following guidelines in terms of the activities associated with the proposed Block Z project.

2.16.1 Water

2.16.1.1 Best Practise Guideline Series

DWA developed a number of best practice guidelines for water resource protection in the South African mining industry. The best practice guidelines include international principles and approaches towards sustainability. There best practice guidelines include *viz.*:

- A water management hierarchy;
- General water management strategies, techniques and tools; and
- Guidelines for mining related activities and aspects.

The guidelines define and document best practices for water and waste management associated with mining and will be considered throughout the S&EIR Process and reporting.

2.16.2 Environmental Processes

2.16.2.1 Publication of Need and Desirability Guideline in terms of the Environmental Impact Assessment Regulations, 2010

This guideline provides a basic guide to the assessment of alternatives and impacts which are key components of an EIA process. The purpose of the document is to create a common understanding amongst the different role-players as to what is required in the assessment of alternatives and impacts.

2.16.2.2 EIA Guideline and Information Document Series: Guideline on Public Participation

In light of the promulgation of the amended EIA Regulations in terms of Chapter 5 of NEMA, on 18 June 2010, this guideline was developed, which forms part of the EIA Guideline and Information Document Series provides information and guidance for applicants, authorities and interested and affected parties on the public participation requirements in terms of NEMA, the EIA Regulations, the NEM:AQA, and the NEM:WA.

This guideline must be read together with the NEMA, the EIA Regulations, the relevant Specific Environmental Management Acts (SEMA) and its Regulations, and is not intended to be a substitute for the provisions of the NEMA, the SEMAs or the Regulations, in any way.

Both the guideline for public participation and the legislated requirements as set out in GNR 543 have been considered and will continue to be considered for the remainder of the proposed Block Z project. The requirements of GNR 543 were viewed as the minimum requirements and the guideline was considered where deemed pertinent to the proposed Block Z project.

2.16.2.3 Integrated Environmental Management Information Series: Impact Significance

This document is one of a series of overview information reports on the concepts of, and approaches to, integrated environmental management (IEM). This document focuses on the concept of significance in the identification, prediction and evaluation of impacts. The aim is to provide an overview of the key literature sources on the topic. Various definitions of the concept of significance are provided. An overview of formal methods to determine impact significance is given. Selected generic approaches to determine impact significance and thresholds of significance are described. This document does not prescribe or recommend specific methods, but rather provides an overview of the key criteria to consider in determining significance.

WSP have developed an impact significance rating methodology which takes into account the following aspects prior to formalising the overall impact significance rating: severity, duration, extent, frequency and probability. The five determinants are consolidated via the use of a predetermined calculation to provide a fully encompassing rating of significance per impact identified. This methodology will be implemented during the EIR phase and reported in the EIR and EMPR.

2.16.2.4 Integrated Environmental Management Information Series 2: Scoping (Department of Environmental Affairs and Tourism)

This document was written to serve as an initial reference text during the scoping phase of the environmental assessment process. It includes a definition of scoping and an overview of its purpose and various methods available. The aim of this document is not to provide detailed guidelines on how to implement scoping but rather provide introductory information on the scoping process for government authorities, environmental practitioners, advocacy groups, non-governmental organizations (NGOs), industry, project proponents, academics, students and other stakeholders. This FSR was compiled in accordance with the regulations as stipulated in both NEMA GNR 543 and MPRDA GNR 527 and giving consideration to this guideline.

2.16.3 Biodiversity

As noted in Sections 2.7 and 2.8 above, the proposed Block Z project is located in an area zoned for mining and therefore it is not anticipated that any protected areas or species, areas of high ecological value or biodiversity occur within the same area. Nonetheless, the below management plans and forums were considered as part of this FSR and will be further considered during the EIR phase if relevant.

2.16.3.1 Action Plan of the Environmental Initiative of the New Partnership of Africa's Development

This initiative was established in 2003 and encourages sustainable development and associated conservation and wise use of biodiversity in Africa. It has been recognised that a healthy and productive environment is a prerequisite for the success of New Partnership of Africa's Development (NEPAD), together with the need to systematically address and sustain ecosystems, biodiversity and wildlife. Six areas have been identified:

- Combating land degradation, drought and desertification;
- Conserving Africa's wetlands;
- Preventing and controlling invasive alien species;
- Conservation and sustainable use of coastal and marine resources;
- Combating climate change in Africa; and
- Cross-border conservation and management of natural resources.

As the proposed Block Z project may affect the local biodiversity, this action plan will be considered.

2.16.3.2 Mining and Biodiversity Guideline

In Mining and Biodiversity Guideline (2013) was founded on six fundamental principles namely:

- Apply the law;
- Use the best available biodiversity information;
- Engage relevant stakeholders thoroughly;
- Use best practice in EIA to identify, assess and evaluate impacts on biodiversity;
- Apply the mitigation hierarchy when planning any mining-related activities and develop robust Environmental Management Programme reports (EMPr); and
- Ensure effective implementation of EMPrs, including adaptive management.

The guideline stipulates the requirements for both utilising and integrating biodiversity information and informants into the assessment of impacts (i.e. this S&EIA process) of mining on biodiversity and ecosystem services, and recommends good practice throughout the mining life cycle.

As the proposed Block Z project may affect the local biodiversity, this guideline document will inform the impact assess process to be completed as part of the EIR phase.

2.16.3.3 The Mining and Biodiversity Forum of South Africa

The South African Mining and Biodiversity Forum (SAMBF) was established in 2005 to provide a platform for cross-sectorial interaction and co-operation in order to improve biodiversity conservation and management in the mining sector. A review of the status of biodiversity management in the mining industry in South Africa was recently published (Kuntonen-van't Riet, 2007). A need for the establishment of biodiversity guidelines was identified.

The good practice guidance on mining and biodiversity, published by the International Council for Mining and Minerals (ICMM) in consultation with the International Union for the Conservation of Nature (IUCN), was prepared for an international audience, and was therefore generic in nature, whilst the need for a guideline document specific to South Africa was identified by the South African mines. This draft guideline document was therefore compiled to incorporate local biodiversity information and best practice guidelines, specific to South Africa.

2.16.3.4 National Spatial Biodiversity Assessment

The National Spatial Biodiversity Assessment (NSBA) was completed in 2004 and its main focus was on mainstreaming biodiversity priorities throughout the economy, and making links between biodiversity and socio – economic development. It is the first ever comprehensive spatial assessment of biodiversity throughout the country and has four components, dealing with the terrestrial, freshwater, estuarine and marine environments.

There are several possible approaches to biodiversity planning. The approach used most often in South Africa, including in the NSBA, is systematic biodiversity planning. It is based on three key principles:

- The need to conserve a representative sample of biodiversity pattern, such as species and habitats (the principle of representation).
- The need to conserve the ecological and evolutionary processes that allow biodiversity to persist over time (the principle of persistence).
- The need to set quantitative biodiversity targets that tell us how much of each biodiversity feature should be conserved in order to maintain functioning landscapes and seascapes.

2.16.3.5 South Africa's National Biodiversity Strategy and Action Plan

According to the Minister of DEA in 2005, the National Biodiversity Strategy and Action Plan (NBSAP) is based on the recognition that South Africa is extremely rich in terms of biodiversity, but is also a developing country where the majority of the population resides in poverty. The NBSAP recognises that Biodiversity should be managed in the context of ensuring equitable benefits to people – both current and future generations. The NBSAP highlights five strategic objectives with a number of outcomes linked to five-year targets, indicators, and activities to achieve the outcomes.

Through the NSBA, it is recognised that biodiversity cannot be conserved through protected area networks only. All stakeholders, from private landowners and communities to business and industry must get involved in biodiversity management. NBSAP further identified mining as one of the activities that causes habitat transformation and degradation, and seriously threatens aquatic and terrestrial biodiversity. The strategy therefore promotes the inclusion of biodiversity considerations in mining regulations, guidelines and best practice codes to mitigate negative impacts and encourage sustainable mining practices through partnerships.

2.16.3.6 Mpumalanga Parks and Tourism Agency Guidelines for Biodiversity Management

To promote national uniform standards in Environmental Management Programmes the Mpumalanga Tourism and Parks Agency (MTPA) have set minimum standards that need to be conformed to in terms of Biodiversity Assessments for development applications. These guidelines cover flora, fauna, aquatic and wetland systems.

2.16.3.7 Mpumalanga Conservation Plan

Mpumalanga's Conservation Plan Version 2 (C-Plan 2) database (MPB, 2006), is intended to guide conservation and land-use decisions in support of sustainable development at a strategic level, have been identified. The C-Plan 2 maps the distribution of the Province's known biodiversity into categories according to ecological and biodiversity importance and their contribution to meeting the quantitative targets set for each biodiversity feature.

3 Approach to scoping phase

3.1 Process and Methodology

WSP is completing the scoping phase of the S&EIR process which has included a review of existing information, the gathering of baseline data (with the assistance of relevant specialists), stakeholder engagement and the compilation of a FSR (this report). Note that WSP has taken cognisance of the requirements of the MPRDA and NEMA when compiling the FSR. This is to ensure a comprehensive process in line with legislation and best practise.

Although a single FSR has been compiled to satisfy the requirements of both the MPRDA and the NEMA, the timeframes associated with public and government review and respective authorisation periods differs. In order to ensure a comprehensive and transparent process, WSP will be following the public review periods stipulated in the NEMA (i.e. 40 days for public review) which meets the MPRDA requirements. **Figure 1-3** illustrates the overall S&EIR process to be followed.

The objectives of the scoping phase are to:

- Comply with the relevant environmental legislation (legislation and guidelines);
- Ensure that the process is open and involves the applicant, authorities and a wide variety of stakeholders;
- Provide details of the EAP who compiled the report and the relevant experience to carry out scoping procedures;
- Describe the need for and desirability of the project;
- Describe the property and location on which the activity is to be undertaken;
- Describe the proposed activity;
- Identify feasible and reasonable alternatives that can be selected for further assessment;
- Identify and describe the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected;
- Describe the environmental issues and potential impacts, including cumulative impacts;
- Provide information on the methodology that will be adopted in assessing the potential impacts during the EIA process;
- Provide details of the stakeholder consultation process followed (see below); and
- Provide a plan of study for the EIA.

All requirements as contemplated in NEMA GNR 543, Section 28, and the MPRDA Regulation No. 26275, section 49, have been included in the Scoping Report. The Scoping Report:

- Includes details of the EAP responsible for preparing the report and the expertise of the EAP to carry out the Scoping procedures (GNR 543, Section 28 (a)) (**Section 1**);
- Identifies all legislation and guidelines that have been considered in the preparation of the Scoping Report (GNR 543, Section 28 (f)) (**Section 2**);
- Describes the methodology applied to conduct scoping (GNR 527, Regulation 49(1)(a)) (**Section 3**);
- Describes the existing and proposed activities and reasonable alternatives, including the advantages and disadvantages of the alternatives (GNR 543, Section 28 (b, c and j)) (**Section 6**);
- Identifies and describes reasonable land use or development alternatives to the proposed operation, alternative means of carrying out the proposed operation and the consequences of not proceeding with the proposed operation (GNR 527, Regulation 49(1)(d)) (**Section 8**);
- Describes the property on which the activity(s) is to take place (GNR 543, Section 28 (d)) (**Section 5 and Section 7**);

- Describes the most appropriate procedure to plan and develop the proposed mining operation (GNR 527, Regulation 49(1)(e)) (**Section 5**);
- Describes the need and desirability of the activity(s) (GNR 543, Section 28 (i)) (**Section 4**);
- Describes the environment (at a screening level) that may be affected by the activity(s) and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the activity(s) (GNR 543, Section 28 (e)) (**Section 7**);
- Describes the existing status of the environment prior to the mining operation (GNR 527, Regulation 49(1)(b)) (**Section 7**);
- Describes the environmental issues and potential impacts, including cumulative impacts that have been identified (GNR 543, Section 28 (g)) (**Section 8**);
- Identifies and describes the anticipated environmental, social and cultural impacts, including the cumulative effects, where applicable (GNR 527, Regulation 49(1)(c)) (**Section 8**);
- Indicates the methodology that will be adopted in assessing the potential impacts that have been identified, including any specialist studies or specialised processes that will be undertaken (GNR 543, Section 28 (n)) (**Section 8**);
- Details the public participation initiation phase for the S&EIR process (GNR 543, Section 28 (h)) (**Section 4**);
- Describes the process of engagement of identified interested and affected persons. Including their views and concerns (GNR 527, Regulation 49(1)(f)) (**Section 4**);
- Includes a Plan of Study (PoS) for the EIR phase (GNR 543, Section 28 (n)) (**Section 9**); and
- Describes the nature and extent of further investigations required in the environmental impact assessment report (GNR 527, Regulation 49(1)(g)) (**Section 9**).

3.2 Application phase

In order to comply with all relevant environmental authorisations pertaining to the proposed project, WSP submitted a number of applications and formal notification letters to relevant departments. **Table 3-1** illustrates applications and notification letters that have been submitted. A copy of all application forms and proofs of acknowledge (where available) are available in **Appendix A**.

Table 3-1: Authority Application and Notification Letter(s)

Department	Application / Notification Letter	Date submitted	Refer Number
MDEDET	Application for environmental authorisation in line with the NEMA EIA Regulations of 2010	16 May 2014	17/2/3N-362
DWA	Notification letter and request for pre-application consultation	31 March 2014	-
	WULA as required by the NWA	January 2015	
DMR	Notification letter and request for pre-application consultation	26 May 2014	-
	Mining Right Application	September 2014	-

All commenting authorities were notified of the proposed Block Z project by email, fax and telephone as part of the stakeholder notification process detail in **Section 3.4**.

Furthermore, the WULA and mining rights applications will be submitted to the DWA and DMR, respectively, in due course (during the S&EIR process).

3.3 Technical scoping

3.3.1 Process Initiation

The S&EIA process was initiated on 28 January 2014 between Isibonelo Colliery and WSP, followed by a specialist initiation meeting on 12 February 2014. The initiation process confirmed the S&EIA approach, project scheduling, baseline data collation and reporting requirements necessary for completion of the scoping phase. In addition, the competent authorities responsible for reviewing the reporting and authorisation processes were identified and pre-application meetings were held (**Table 3-2**) with each to provide proposed project detail and ratify the way forward (meeting minutes and attendance registers are available in **Appendix A**).

Table 3-2: Competent Authority Communication and Meetings

Authority	Email	Telephonic	Meeting
MDEDET	17 and 27 February, and 31 March 2014	May 2014	DNR*
DWA	17 February 2014	April 2014	24 April and 13 June 2014
DMR	17 February 2014	April 2014	16 April 2014

*Meeting was requested but did not receive a response from MDEDET.

3.3.2 Preliminary investigation

The scoping phase of the S&EIR process aims to identify what information and data will be required in order to assess in detail the environmental (including socio-economic) impacts of a project. The scoping phase is designed to focus subsequent data collection and investigations on issues of concern and importance. The scoping phase therefore includes not only a thorough review of environmental baseline data relevant to the project site and receiving environment, but also a preliminary identification of environmental issues and impacts, including direct, indirect and cumulative impacts.

The preliminary investigations undertaken during the scoping phase included aspects such as the physical, biological and social environment. The information in the FSR was compiled from various sources, including Isibonelo Colliery, site visits, interviews and meetings with authorities and stakeholders, and literature reviews. Both the positive and negative potential impacts that the proposed mining operations may have on the environment are identified and discussed.

For the proposed Block Z project, a number of specialist baseline site surveys and desktop studies were commissioned during the scoping phase, results of which are incorporated into the environmental baseline (**Section 7**) and used to identify potential impacts (**Section 8**). WSP appointed an independent and specialised team of scientists to undertake these relevant studies, comprising both of in-house and external sub consultants. All of these specialists will be engaged during the EIR phase to provide further assessment of impacts and provide recommendations for management and mitigation. The specialist studies scopes of work to be completed in the EIR phase is further detailed in **Section 9**.

Table 3-3 details the site visit, and initial investigation and baseline reporting undertaken by the EAP and specialists during the scoping phase.

Table 3-3: EAP and specialist site visit and baseline reporting

Component	Company	Contact person	Site Visit	Baseline Reporting
S&EIA	WSP	Janna Bedford-Owen	A preliminary site visit was performed by the WSP S&EIA and Air Quality and Noise project teams on 28 February 2014.	-
		Zaffar Hussain		-
Patricia Mathabathe		3 April 2014		
Air quality & Noise		Nicola Enslin	-	

Component	Company	Contact person	Site Visit	Baseline Reporting
Hydrology		Greg Matthews	2 and 3 April 2014	4 April 2014
		Andrew Gemmel		
Social		Danielle Michel	A preliminary site visit was performed by the WSP Social Specialist team on 28 February 2014	11 April 2014
Blasting and Vibration	Blast management	Danie Zeeman	April 2014	25 March 2014
Heritage (archaeology)	Archaeos CC	Dr Anton van Vollenhoven	31 March – 4 April 2014	1 April and updated on 14 April 2014
Biodiversity and Wetlands	Natural Scientific Services CC	Kathy Taggart	31 March – 4 April 2014	31 March and update 3 June 2014
		Susan Abell		
Geohydrology	JMA	Jaco van der Berg	May 2014	TBC
Land capability & land use	Earth Science Solutions	Ian Jones	April 2014	24 March and updated 2 June 2014

The stakeholder engagement process is central to the investigation of environmental impacts as it is important to provide interested and / or affected stakeholders with an opportunity to identify issues relevant to them and to ensure that local knowledge, needs and values are understood and utilised. The views of stakeholders are included in the FSR and will be assessed to either validate the appropriateness of the specialist studies that are being undertaken or to indicate where additional specialist studies may be required to ensure that issues are adequately addressed. Issues and impacts identified in the FSR will be described in detail and assessed during the EIR phase and mitigation methods will be discussed in detail (within the EMPR). The EMPR will also include the implementation and monitoring of the management / mitigation measures.

3.4 Stakeholder Engagement

The stakeholder engagement process was undertaken by WSP in a comprehensive inclusive and transparent manner. Although requirements of both the MPRDA and NEMA have been taken into consideration, WSP perceives that the requirements of the NEMA pertaining to stakeholder engagement process are more stringent comprehensive than the requirements of the MPRDA. Therefore WSP has followed the NEMA GNR 543 requirements for stakeholder engagement.

The NEMA EIA Regulations (Sections 54 – 57) require that an inclusive, transparent process of engagement – sharing of information, receipt of comments, expression of issues and concerns, and response and feedback regarding issues and concerns – be undertaken that allows participation by any and all persons and entities who may be affected by and / or have an interest in a proposed Block Z project. Full details of the process undertaken are presented in Chapter 10 of this report.

The following activities are undertaken as part of the scoping phase and subsequent stakeholder engagement, and are further detailed in the sections below:

- Stakeholder identification;
- Authority notification;
- Stakeholder notification;
- Stakeholder meetings;
- Compilation of an Issues Trail; and
- Public review of the DSR.

3.4.1 Stakeholder Identification

The identification and registration of stakeholders has and will be an ongoing process during the course of this S&EIR process. Neighbouring farms as well as other stakeholders were identified as interested and / or affected parties. Specific attention will be paid to the local organisations, commenting government departments and other active organisations in the area.

These stakeholders were, where possible, individually notified of the proposed Block Z project. WSP also notified the public of the proposed Block Z project through the erection of site notices and publication of newspaper advertisements. WSP considers that an effective notification process has been undertaken to date which satisfies the requirements of the NEMA.

WSP has developed an electronic database for the proposed Block Z project which includes details of all stakeholders who have requested to be notified of the progress of the S&EIR process. A copy of the stakeholder database is included in **Appendix B1**.

Please note that contact details of all stakeholders have not been included in the database for confidentiality reasons.

Stakeholders were identified and will continue to be identified through several mechanisms. These include:

- Utilising the existing Isibonelo Colliery database from other projects at the mine;
- Networking with local business owners, non-governmental agencies, community based organisations, and local council representatives;
- Field work in and around the project area;
- Advertising in the press;
- Placement of community notices;
- Distribution of background information documents;
- Discussions with local community and relevant ward councillors;
- Completed comment sheets; and
- Attendance registers at meetings.

All stakeholders identified to date have been registered on the project stakeholder database. The EAP endeavoured to ensure that individuals / organisations from referrals and networking were notified of the proposed Block Z project. Stakeholders were identified at the horizontal (geographical) and vertical extent (organisations level). Refer to **Appendix B1** for a list of stakeholders captured in the project database.

It should be noted that only registered stakeholders are entitled to comment, in writing, on all written submissions made to the competent authority by the applicant or the EAP managing an application, and to bring to the attention of the competent authority any issues which that party believes may be of significance to the consideration of the application, provided that comments are submitted within the timeframes that have been approved or set by the competent authority or any extension of a timeframe agreed to by the applicant or EAP.

3.4.1.1 Roles and Responsibilities of Registered Stakeholders

Registered stakeholders have the right to bring to the attention of the competent authority any issues that they believe may be of significance to the consideration of the application. The rights of stakeholder are qualified by certain obligations, namely:

- Stakeholders must ensure that their comments are submitted within the timeframes that have been approved by the DEA, or within any extension of a timeframe agreed by the Proponent, EAP or competent authorities;
- Serve a copy of the comments submitted directly to the competent authorities, the Proponent or the EAP; and

- Disclose to the EAP any direct business, financial, personal or other interest that they might have in the approval or refusal of the application.

The roles of stakeholders in the process usually include one or more of the following:

- Assisting in the identification and prioritisation of relevant issues that need to be investigated;
- Making suggestions on alternatives and means of preventing, minimising and managing negative impacts and enhancing the proposed Block Z project benefits;
- Assisting in or commenting on the development of mutually acceptable criteria for the evaluation of decision options;
- Give timeous responses to correspondence;
- Contributing information on public needs, values and expectations;
- Contributing local and traditional knowledge; and
- Verifying that their issues have been considered.

3.4.2 Stakeholder Notification

3.4.2.1 Newspaper Advertisements

The NEMA EIA Regulations (GNR 543) require that the proposed Block Z project is advertised in a local newspaper to notify the public about the project and invite stakeholders to register. WSP published three advertisements (one in English, Afrikaans and Zulu) in a local and regional newspaper as detailed in **Table 3-4**. Copies of the advertisements and as published in the said newspapers are contained in **Appendix B2**.

Table 3-4: Date on which the Adverts were published

Newspaper	Publication Date	Language
The Sowetan	23 June 2013	English, Afrikaans and IsiZulu
The Echo	25 June 2014	English, Afrikaans and IsiZulu
The Ridge	25 June 2014	English, Afrikaans and IsiZulu



3.4.2.2 Site Notices

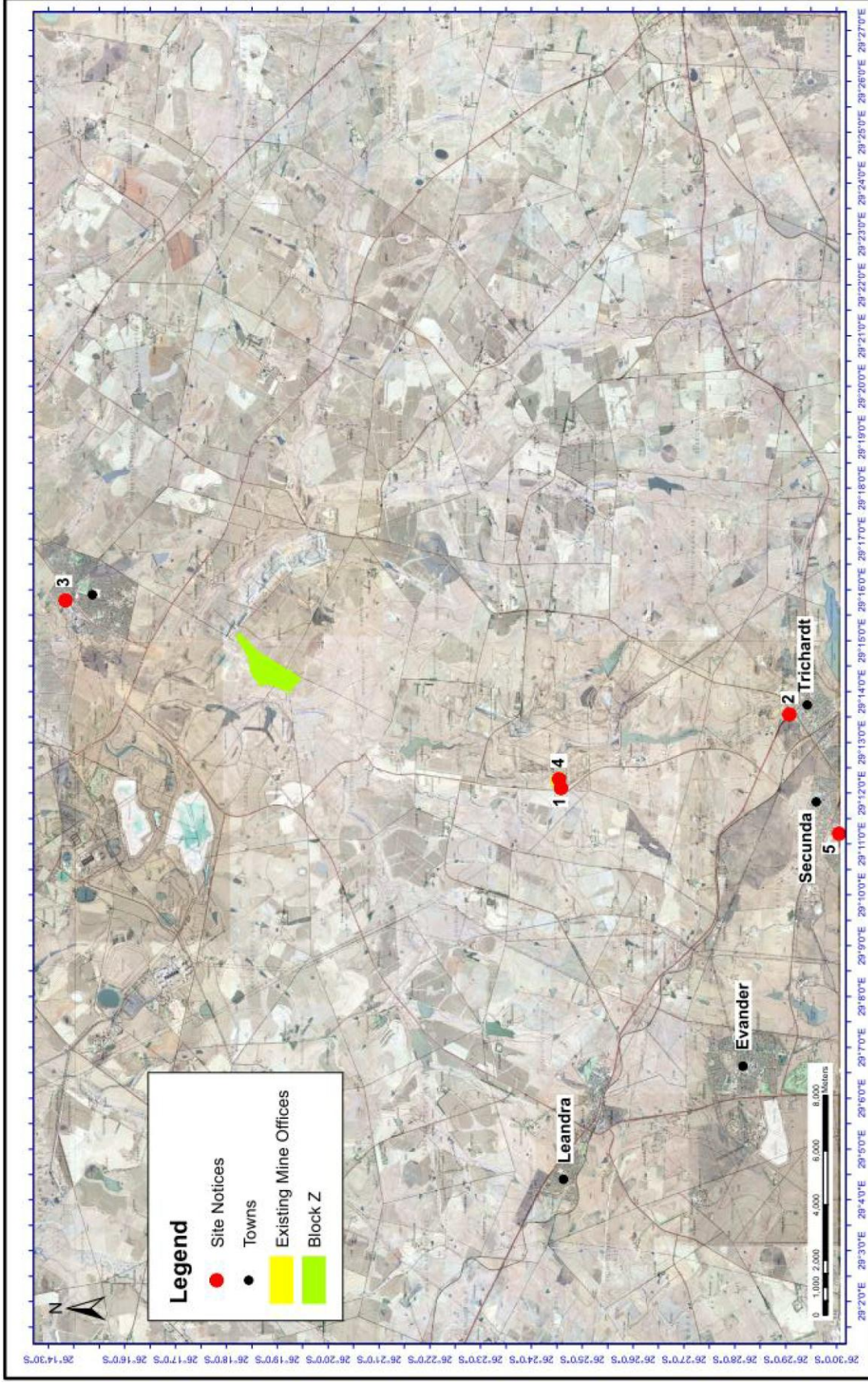
The NEMA EIA Regulations (GNR 543) require that a site notice be fixed at a place conspicuous to the public at the boundary or on the fence of the site where the activity to which the application relates is to be undertaken. WSP erected site notices on 23 June 2014. All site notices erected were in English, Afrikaans and Zulu.

Table 3-5 and **Figure 3-1** provides the detail concerning these locations. Copies of the site notices are included in **Appendix B3**.

Table 3-5: Site Notice Locations

Site Notice	Address	Co-ordinates	Photographs
Site Notice 1	Main entrance to Isibonelo Colliery offices.	26°24'35.71"S 29°12'03.70"E	
Site Notice 2	Trichardt (Intersection of Barney Molokwane & unnamed road)	26°29'05.41"S 29°13'33.33"E	
Site Notice 3	eMalahleni Local Municipality (Quintin Street, Kriel, South Africa)	26°14'50.85"S 29°15'47.99"E	

Site Notice	Address		Co-ordinates	Photographs
Site Notice 4	Isibonelo Reception board	Colliery notice	26°24'34.32"S 29°12'16.94"E	
Site Notice 5	Secunda Library	Public	26°30'11.80"S 29°11'04.81"E	



Anglo American: Isibonelo Colliery		Date: 04 April 2014	
Site Notice Layout		Project: Block Z Project	Project No.: 39664
Data Source: South African Department of Rural Development and Land Reform - Chief Directorate: National Geo-spatial Information		Drawn by: Jared O'Brien	Reviewed by: Jared O'Brien
Projection: Geographic - WGS1984		WSP www.wsparr.commercial.co.za	

Figure 3-1: Site Notice location (June 2014)

3.4.2.3 Background Information Document

The NEMA EIA Regulations (GNR 543) require written notice must be given to the:

- a) Owner or person in control of the land if the applicant is not the owner;
- b) Occupiers of the site where the activity is to be undertaken;
- c) Owners and occupiers of land adjacent to the site where the activity is to be undertaken;
- d) The municipal councillor of the ward in which the activity is to be undertaken as well as any organisation of ratepayers that represent the community in the area;
- e) The municipality which has jurisdiction in the area;
- f) Any organ of state having jurisdiction in respect of any aspect of the activity; and
- g) Any other party as required by the competent authority.

The purpose of a background information document (BID) was to provide stakeholders with introductory information on the applications, the S&EIR process and the public participation process. The BID also provided stakeholders who were interested in the proposed Block Z project with the opportunity to register by way of completing the registration sheet distributed with the BID. Information on the registration sheet was used to register stakeholders in a stakeholder database so that they continue to receive future project-related information and invitations to meetings. The registration sheet included a section for comments and issues, which allowed stakeholders the opportunity to provide the EAP with written comments and feedback. Furthermore, letters of invitation were also compiled and sent with the BIDs.

As with the other stakeholder notification materials, the BID was translated into English, Afrikaans and Zulu. Copies of the BIDs are contained in **Appendix B4**.

In order to ensure an encompassing notification process, BIDs and notification letters were distributed via:

- Email, on 20 June 2014;
- Facsimile, on 20 June 2014
- Hand delivery, on 23 June 2014; and
- Registered post, on 24 June 2014.

In addition to the above, copies of the BID were distributed placed at the following locations:

- Isibonelo Colliery reception;
- eMalahleni Local Municipality; and
- Secunda Public Library.

See **Figure 3-1** for locations.

3.4.3 Public Meeting

A public meeting was held on 21 August 2014 between 16:00 – 18:00pm at the Brunfelsia Estate. The aim of the meeting was to detail the proposed Block Z project and provide an opportunity for stakeholders to raise issues, concerns and queries related thereto. The meeting was presented in English and questions, concerns and issues were recorded in the comments and responses table in Section 3.4.4. Copies of the meeting presentation, minutes and attendance register, as well as the distribution of the minutes to stakeholders is included in **Appendix B5**.

3.4.4 Comments and Responses

All concerns, comments, viewpoints and questions (collectively referred to as 'issues') received from stakeholders and the associated responses from WSP and the project team, have and will continued to be,

recorded in the comments and response table. WSP has recorded all comments received, to date, for the proposed Block Z project; including:

- List of all issues raised;
- Record of who raised the issues;
- Record of where the issues were raised;
- Record of the date on which the issue was raised; and
- Response to the issues.

A copy of the comments and responses is included in **Appendix B1** and a summary of comments and responses is included in Table 3-6.

Table 3-6: Summary of Comments and Responses

No.	Source	Date	Comment	Response
1.	Sarel Booyens and Anneke Conradie (Sasol)	26 June 2014 (E-mail)	With reference to the stakeholder notification letter, indicate whether this amendment includes the exclusion of the area to be transferred to Sasol Mining, but still includes the opencast infrastructure and overburden dumps on the Sasol Mining area.	The Environmental Management Programme (EMPR) amendment will serve to exclude the coal reserve proposed for Sasol Mining but will include the surface infrastructure which is Isibonelo Colliery's responsibility.
2.	Pinky Monyela (Department of Water Sanitation) and (DWS)	11 September 2014 (E-mail)	Note that comments to be issued by the DWS are awaiting supervisor signature. Supervisor to action the review on Monday.	WSP to issue response to DWS comments in the draft Environmental Impact Assessment Report (EIAR).
3.	Fhatuwani Muronga (Department of Mineral Resources)	10 September 2014 (Telephone)	The DMR does not usually comment on the draft scoping report. Bethuel Matodzi is allocated as the case officer dealing with the application.	WSP confirmed that the case officer from the DMR assigned to this project is Mr Bethuel Matodzi with the assistance of Fhatuwani Muronga. Furthermore, a scoping report template does not exist for a Section 102 Amendment process, and therefore the DMR is willing to review a Final Scoping Report (in a WSP template/report format) provided the requirements of NEMA and the MPRDA have been met. WSP will be submitting the Final Scoping Report for the Block Z project during the week of 15 September 2014.
4.	Nokukhanya Khumalo (SAHIRA)	19 September 2014 (E-mail)	Create a polygon of the project site on SAHRIS. Once complete the project will be placed on her agenda.	WSP successfully uploaded (12 September 2014) a polygon noting the Block Z area on the SAHRIS website as requested.
5.	Ryno Beukes (Farmer)	21 August 2014 (Public Meeting)	Indicated that he is happy with the Proposed Project. He explained that shifting of the Proposed Project area from the previously planned location the new Proposed Project location (Block Z) is beneficial to him and the local farmers. The previous location proposed would have resulted in the potential loss of arable land.	Comment Noted and Accepted.
6.	Mr Greyling (Farmer)	21 August 2014 (Public Meeting)	Requested clarity on exactly where the proposed Block Z area is.	The red area on the public meeting presentation map depicts the proposed mining area of the Proposed Project.
7.			Requested clarity on where the existing Isibonelo Colliery mining blocks are located.	The current mining operations and the location of the existing pits at AAC:IC include: - North pit; - South pit; and - Central pit.
8.			The Isibonelo Colliery North pit is extending into his property. He further noted that mine management have, to date, not made him aware of the mine plans extending into his properties from a North pit. He met with mine management over the week leading up to the public meeting and was concerned about the 'piece meal' approach being undertaken. He emphasised that he has his own forward planning to make provision for and therefore requires an overview of proposed mine plans to complete such successfully. As such, he requested a date by which the North pit will extend into his property as well as the	The North pit area (including the eventual ingress of the North pit onto his farm) already forms part of the mine planning and is included in the current approved Isibonelo Colliery EMPR. An Isibonelo Colliery representative added that the mine plan extends up until 2026. An Isibonelo Colliery representative will confirm the exact projections of mining activities into Mr Greyling's property and send relevant information (including proposed dates) to Mr Greyling in due course. The mine does not have surface rights and as such would need to purchase the land from Mr Greyling in the future.



			Proposed Project (i.e. by when he will notice the impact of the North Pit and Block Z opencast mining areas).	
9.			Requested a site visit on the mine in order for him to understand upto what point exactly on his property mining will be extending (i.e. exact co-ordinates).	Isibonelo Colliery to revert back to the farmer in due course to propose a date for the site visit.
10.			How WSP will assess the impact of the Proposed Project on food security (i.e. mining instead of cultivation). This aspect needs to be considered during the impact study.	Land capability specialist will be assessing this aspect. The assessment findings will be conveyed to the stakeholders during the Environmental Impact Reporting (EIR) phase. WSP will notify the specialist to ensure sufficient management measures are proposed in the EIAR.
11.			He indicated that another mining group laid claim to his land. He added that the company has been drilling in the area (prospecting). The drilling extends further to the south than where the Proposed Project is located. 6-8 holes have been drilled by the company to date (drilling took place early in 2013). His understanding is that the company has prospecting rights to do so. He requested clarity on who has or has the prospecting and mining rights to the land. He believes the mining company name is Kusile Mining Company. He indicated that Sasol also approached him with land rights claims. Sasol did make mention of the swapping of underground vs above ground mining with Isibonelo Colliery.	The Anglo American legal team have been involved in the process leading up to this point and indicated that the prospecting mining rights have been awarded to Anglo American (Isibonelo Colliery). During Mr Greyling's site visit, a close out meeting with the mine manager should be held in which to discuss the issues raised.
12.			He indicated that the first he heard of the Proposed Project was upon receipt of the WSP notice letter. He however was aware of the evaluation of his property being undertaken by the Colliery but no formal indication of desire to purchase his land has been received to date.	Comment is noted. WSP will ensure that Mr Greyling is kept up dated on project related progress while the Colliery will continue to liaise with Mr Greyling on property and related matters.
13.			Mr Greyling is concerned about dust and vegetation issues that may result from the Proposed Project. How can he understand what the impact will be?	A biodiversity impact assessment is being undertaken to identify impacts which may result from the Proposed Project. The assessment also looks at predicting impacts in the future. Furthermore, the assessment goes beyond the boundaries of the Proposed Project area. Furthermore, the specialist will assess the Proposed Project impact, devise a management plan and then reassess the impacts with mitigation measures applied. During the EIR phase of the process, the specialists will be made available to attend the public meeting to further describe the assessment process in an understandable format.
14.			The Proposed Project is very close to his farm. He understands that the mine has security in place which is a positive however, having more people in close proximity to his property/farm is a cause for concern for him. The temptation for employees or others to come further onto his property and steal, etc. is always apparent.	Existing security services will be maintained for the Proposed Project. These concerns will be further assessed in the EIR phase.
15.			Mine management have in the past requested him, his employees and his animals to keep away from the water contained in the dam to the east of his property due to the polluted nature of the water. The water in the dam is thus considered unusable. In terms of South	Isibonelo Colliery has established monitoring boreholes in and around the dam area. The monitoring results indicate that the groundwater has not been impacted by the dam e.g. seepage, which indicates that the lining of the dam is functioning correctly.

			African legislation, how does the Department manage this? Is the mine not forced to treat the water (remediate)? He added that this contaminated water can seep into the groundwater reserves and is this considered by the current operations.	During the mine closure phase, Isibonelo Colliery is required to treat the contaminated water. There is a legal obligation to remediate the impacted environment in terms of the South African legislation. The Department does audit the mine on occasion to ensure compliance as well as to ensure the mine is employing "environmentally and socially responsible" practices.
16.			He indicated that he has seen animals and bird life in and around the contaminated dam. He emphasised that legal compliance and moral obligation are two different things. Even though the mine may be legally compliant, there is also a moral obligation to ensure wildlife is not impacted by the dam.	This is a concern to Isibonelo Colliery and as such the mine employs as many practical solutions to stem these potential impacts where possible, e.g. signage, fences and containment on site.
17.	Daniel Moukangwe and Kagisho Maboja (representing organised labour)	21 August 2014 (Public Meeting)	<ul style="list-style-type: none"> ■ What are the potential impacts from socio-economic perspective? ■ Will the Proposed Project benefit the local communities? ■ Is the current employment quota sufficient to cope with additional mining e.g. Proposed Project? <p>The union is aware of the Isibonelo Colliery's management opinion on the matter and therefore requested WSP's opinion on the matter.</p>	The previously identified mining area was provided to Sasol in exchange for the Proposed Block Z area due to mining feasibility issues (i.e. underground vs above ground mining). The staff complement proposed for the area provided to Sasol will simply be re-deployed to the Proposed Project area. If the Proposed Project is not authorised, the mine may need to retrench employees. The current mine plan indicates that current equipment and infrastructure will be transferred to the Proposed Project area. The Proposed Project is a replacement project. A social impact assessment is being undertaken which will consider the employment aspect.
18.	Anneke Conradie	08 September 2014 (Email)	<p>Reference is made to the minutes and presentation received, regarding the public meeting held on 21 August 2014.</p> <p>Please clarify the following:</p> <ul style="list-style-type: none"> ■ The DMR file number of the mining right being amended. ■ The extent of the amendment, e.g. the addition of more land, etc. ■ On slide 7 of the presentation, does Block Z mining right amendment area (indicated in red) include all the portions mentioned in the top slide, or are they only included in your study area? ■ Note must be taken that Windeed currently does not indicate the existence of a Portion 54 of Rietfontein 101 IS, maybe Portion 4? 	<ul style="list-style-type: none"> ■ DMR reference number: OT6/2/2/447 MP 30/5/1/2/3/2/1 (130) EM. ■ Area coverage = Approximately 141 ha. ■ Farms: Rietfontein 100 IS – portions 4, 5 and 12; Vlaklaagte 83 IS - portion 3 and Onverwacht 70 IS - portions 1 & 21.

3.4.5 Public Review of the Draft Scoping Report

The DSR was made available to stakeholders and authorities for review, prior to finalisation and submission of the final report for review by the competent authorities. All registered stakeholders and authorising / commenting state departments were notified of the public review period as well as the locations of the DSRs via fax and email, post, hand-outs. All stakeholders and authorities were allocated 40 days to review the DSR.

The DSR was made available for public review from **8 August – 12 September 2014**, at the following venues:

- Isibonelo Colliery Reception;
- Bethal Public Library (Danie Nortje road, Bethal);
- Secunda Public Library (Lourens Muller Street, Secunda 2302);
- WSP Website (<http://secol1web01.se.wspgroup.com/en/WSP-Africa/What-we-do/Services/All-Services-A-Z/Technical-Reports/>)

A copy of the public review notification letter is included in **Appendix B5**.

No significant amendments were required during the DRS finalisation and as such the FSR did not undergo a second public review process. However, notification of the FSR compilation and submission to the competent authority was circulated to stakeholders (**Appendix B5**). This notification noted what amendments were made and the final submission date, as well as the reports availability to stakeholders should it be requested.

Any comments received as a result of FSR public review will be forwarded to the delegated/competent authority by means of an “updated comment and response table”.

3.4.6 Ongoing Consultation and Engagement

In addition to the public documents distributed to stakeholders, there will be ongoing communication between the proponent, WSP and stakeholders throughout the S&EIR process. These interactions include the following:

- In addition to the project announcement letters, a letter will be sent out to all registered stakeholders providing them with an update of the proposed Block Z project once the FSR has been approved;
- Interactions with stakeholders will take place in English and Afrikaans as required;
- Feedback to stakeholders, individually and collectively;
- Written responses (email, faxes or letters) will be provided to stakeholders acknowledging issues and providing information requested (dependent on availability); and
- As per the GNR 543, particular attention will be paid to landowners, and neighbouring communities, specifically where literacy levels and language barriers may be an issue.

The consultation with all stakeholders will continue into the EIR phase. Consultation will continue and will include:

- Distribution of all project information and findings to stakeholders;
- Review of the draft EIR;
- EIA feedback via a public meeting; and
- Publication of commencement of the EIA phase in local and regional newspapers.

3.5 Submission and decision-making

The competent authorities will be allocated 30 days to review the Final Scoping Report (FSR). If the delegated competent authorities do not accept or reject the report within 30 days, they will receive an additional 60 days to evaluate the FSR and issue a decision to proceed onto the next phase, the EIR phase.

4 Need and Desirability

In South Africa AAC wholly owns and operates seven mines, of which six of the mines collectively supply 23 million tonnes per annum (Mtpa) of thermal coal to both export and local markets. Isibonelo Colliery produces 5 Mtpa of coal for SSF as part of a 20 year supply contract.

SSF operates the world's only commercial coal-based synthetic fuels manufacturing facility, producing synthesis gas (syngas) through coal gasification and natural gas reforming. Simply, the coal is crushed, blended to a satisfactory standardised quality, and gasified at a temperature of 1300°C. (Sasol n.d.).

Sasol converts this syngas into synthetic fuel components, pipeline gas and chemical feedstock for the downstream production of solvents, polymers, comonomers and other chemicals. Carbon is produced for the recarburiser, aluminium, electrode and cathodic production markets.

Isibonelo Colliery was officially opened in April 2005 and was established following the signing of contractual agreements between AAC and Sasol to jointly develop the Kriel South coal reserve. The infrastructure and employees of the operation were acquired from Sasol resulting in the first successful complete transfer of equipment, assets and labour force.

Following discussions between Sasol and Isibonelo Colliery, it was agreed that the area previously proposed for mining by Isibonelo Colliery (south of the Central Pit) will instead be mined by Sasol at a future date. Subsequently, Isibonelo Colliery was forced to identify a new feasible alternative to mine. The new area identified by Isibonelo Colliery is the proposed Block Z area which is anticipated to provide similar volumes of coal at a comparable operational cost.

Although, it is understood that the proposed mining of Block Z will not increase Isibonelo Colliery's existing life of mine (LoM); it will increase its annual production rate and ensure that contractual obligations to SSF are fulfilled. By ensuring that these contractual arrangements are fulfilled, Isibonelo Colliery will continue to contribute to AAC and indirectly ensure the SSF continues to operate. The continued and improving operation of these two large global companies has numerous economic benefits, especially in the South African market.

Isibonelo Colliery currently employs 316 permanent staff; while a further 887 individuals are employed on a contractual basis. **Table 4-1** presents the percentage of the current Isibonelo Colliery employees comprising previously disadvantaged individuals (as of June 2014). Isibonelo Colliery noted that an estimated 27% of the current workforce will be dedicated to the proposed Block Z project.

Table 4-1: Isibonelo Colliery HDSA Employee Percentages

Position	Isibonelo Colliery HDSA %	Mining Charter Requirement
Senior Management	40%	40%
Professionally Qualified	48%	40%
Junior Management	58%	40%
Skilled	64%	40%
Unskilled	94%	40%

The mining activity will also realise several advantages for the local communities in the region by allowing Isibonelo Colliery to implement the (approved) Social and Labour Plan (SLP); as well as by providing business opportunities for secondary industries such as contractors, manufacturers and suppliers including, *inter alia*:

- Continued employment of contractors and existing staff;
- Continued utilisation of local businesses to supply the operation e.g.:
 - Fuel;
 - Machinery and equipment; and
 - Supplies viz. fertilizer, food, chemicals etc.
- Contribution to the local economy; and

-
- Undisrupted operation at SSF.

Following on from the above, Isibonelo Colliery through the mining of the proposed Block Z, is and will be able to demonstrate alignment of its operations with the Broad Based Socio Economic Empowerment Charter for the South African Mining Industry (2010) (GNR 838), hereafter referred to as “the Mining Charter”. This is a government instrument designed to effect sustainable growth and meaningful transformation of the mining industry. The Mining Charter objectives are detailed below along with a brief statement noting how Isibonelo Colliery and the proposed Block Z fulfil such:

- *“To promote equitable access to the nations mineral resources to all the people of South Africa”* – Isibonelo Colliery and Sasols agreement to develop the Kriel reserve was a first of its kind and demonstrates mineral resource sharing;
- *“To substantially and meaningfully expand opportunities for Historically Disadvantaged South Africans (HDSA) to enter the mining and metals industry and to benefit from the exploitation of the nation’s mineral resources”* – Isibonelo Colliery’s HDSA is presented in **Table 4-1** and shows continual improvement through implementation of the SLP objectives and action plans;
- *“To utilise and expand the existing skills base for the empowerment of HDSA and to serve the community”* – Isibonelo Colliery provides in-house training and skills transfer as part of its certified ISO Integrated Management System, more specifically the procedures developed in support of this system e.g. IIMS SP 1.006 Training, Competency & Awareness procedure;
- *“To promote employment and advance the social and economic welfare of mine communities and major labour sending areas”* – as previously mentioned, Isibonelo Colliery employs 316 direct staff from the local area. In addition, the SLP seeks to advance the socio-economic welfare of Isibonelo Colliery employees and local communities;
- *“To promote beneficiation of South Africa’s mineral commodities”* – the supply agreement between Isibonelo Colliery and Sasol provide for this;
- *“Promote sustainable development and growth of the mining industry”* AAC roll-out of ECO₂MAN or the energy and CO₂ management programme aimed at managing energy consumption, greenhouse gas footprint and climate change objectives. Further to this, AAC is proposing to develop more solar power installations aimed at reducing the carbon footprints of its collieries in the Mpumalanga Province. Kriel Colliery, Greenside Colliery and Goedehoop Colliery have already started such initiatives, demonstrating continued investment in new, more sustainable technologies by AAC (Kotze, 2014).

5 Project Description

5.1 Background

Isibonelo Colliery is situated in the Mpumalanga Province between the towns of Kinross, Secunda, Bethal and Kriel near the northern margin of the Highveld coalfield of Mpumalanga (**Figure 5-1**).

Bituminous coal seams hosted by the sedimentary strata in the Isibonelo Colliery Mining Licence area include, from the base up, the No 1, 2, 3, 4 and 5 seams. Only the No 4 seam is presently considered to be economically viable, with an average opencast depth of 40m and a thickness of 5,6m.

Mine development began in early 2005 with the excavation of a box cut 100m behind a berm using the truck and shovel method, and a dragline was relocated from the Syferfontein mine. The dragline walkway was originally developed adjacent to the Sasol's overland conveyor servitude. This dragline walkway was subsequently developed into the service and pit access roads presently still operational. Once the box cut was established a second dragline was incorporated into the mining operations.

Isibonelo Colliery currently operates three open cast pits, namely the North Pit, Central Pit and South Pit.

5.1.1 Proposed Block Z Area

The proposed Block Z area is approximately 141 ha with a coal capacity of 9 million tons, and is located adjacent to the current Isibonelo Colliery mining operations, more specifically west of the North Pit, north of Sasol's underground mine, east of the Dwars-in-die-weg-spruit and AAC: Kriel Colliery (Kriel Colliery) operations.

5.1.2 Sasol Coal Reserve Swap

Isibonelo Colliery has an existing long term contract with SSF for the supply of a fixed volume of coal per annum. Isibonelo Colliery initially proposed to mine an area that lies south of the Central Pit to fulfil these contractual obligations. Following discussions between Sasol and Isibonelo Colliery, it was agreed that this area previously proposed for mining by Isibonelo Colliery (south of the Central Pit) will instead be mined by Sasol at a future date and Isibonelo Colliery would identify another area for mining.

The new area identified by Isibonelo Colliery is the proposed Block Z area as it is anticipated to provide similar volumes of coal at a comparable operational cost, as covers a similar surface area. The proposed Block Z area was previously proposed for underground mining by Kriel Colliery.

Once it was established that the Block Z area could not be economically mined by Kriel Colliery, a decision was made by AAC to perform a coal reserve swap. The swap entailed the transfer of the mining right for proposed Block Z area from Kriel Colliery to Isibonelo Colliery.

It is understood that the proposed mining of Block Z will not increase Isibonelo Colliery's existing life of mine (LoM) however it will increase its annual production rate and ensure contractual obligations to SSF are fulfilled.

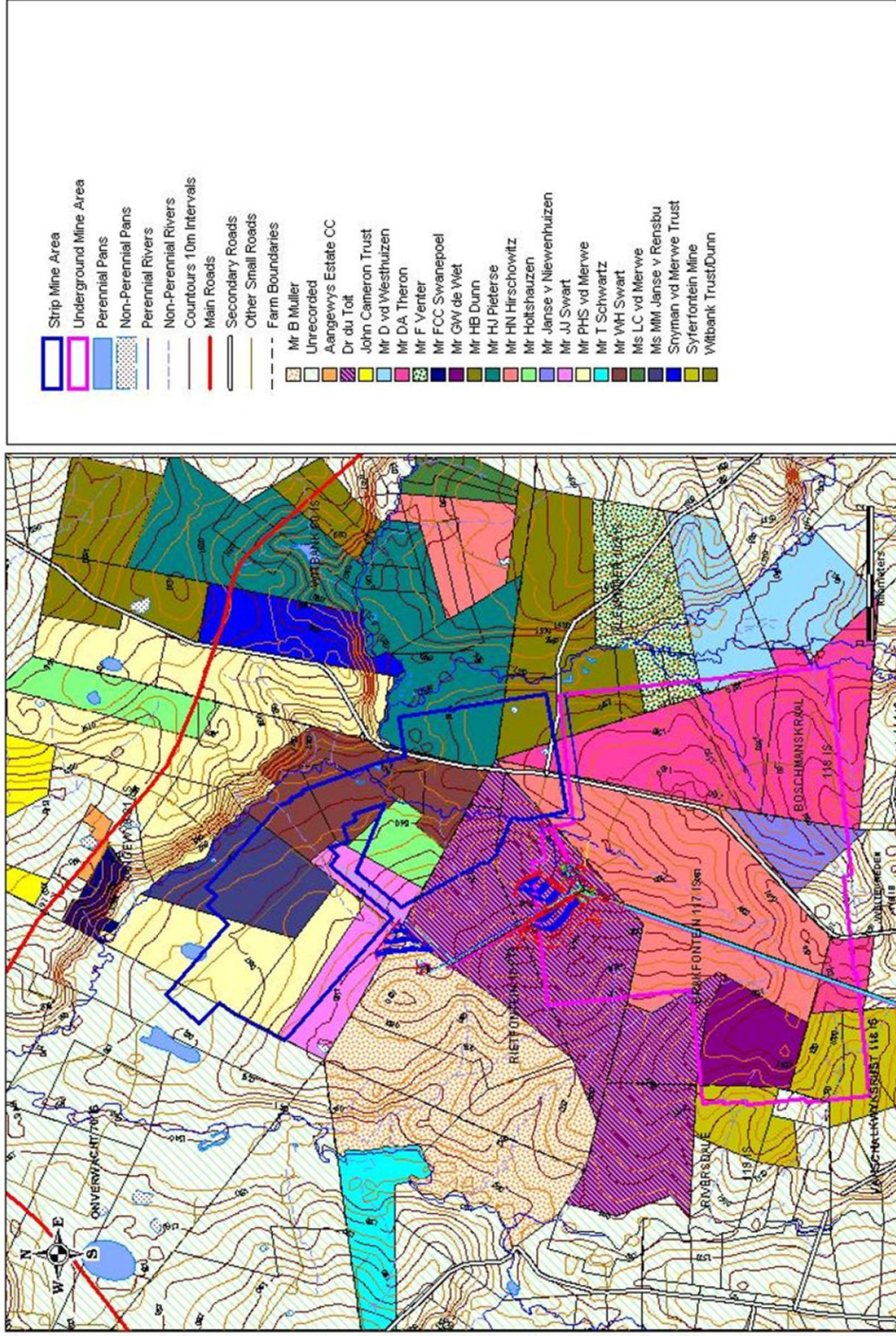


Figure 5-1: Existing surface and mineral rights area as per the mining license (Consolidated EMPR for Isibonelo Colliery, 2012)

5.2 Mining Methodologies

5.2.1 Typical Mining Methodologies

There are various methods employed by mining operations to extract minerals from the earth, including underground and surface mining. Surface mining is predominantly employed when the ore body proposed for extraction is located close the surface and several techniques can be implemented to expose the desired ore body, namely strip mining and contour mining, as well as open cast / pit mining.

Strip mining is the process of removing overburden (surface material covering the mineral deposit i.e. coal) in long strips in order to expose the coal for extraction. The overburden removed is then stored before being placed into the previously excavated strip prior to rehabilitation.

Open cast / pit mines are usually dug on benches and gradually expanded. The pit walls are stepped downward until the required depth is reached. This is usually the depth at which the resource material (coal) is exhausted or it becomes economically unviable to continue mining. The incline or vertical section of a pit wall 'step' is referred to as a batter while the horizontal section is referred to as the bench. The bench is used to describe vertical levels of the pit and are dug at the desired intervals as dictated by ground stability and the selected machinery or equipment to be utilised. In many case, the pit walls are dug at an angle less than vertical so as to prevent / minimise damage from potential collapse.

The mining methodologies employed by IC are a combination of strip and open cast pit mining.

IC further categorises its' overburden material into hard or soft (below refers); this categorisation ultimately determines which mining technique and what equipment will be used for its removal.

- Softs overburden: lesser composition of rock and easier to remove (free digging); and
- Hards overburden: higher composition of rock making it more difficult to remove.

Isibonelo Colliery's' existing mine infrastructure and mining methodologies have been further detailed in Sections 5.2.2, while the proposed Block Z infrastructure and mining methodologies are detailed in Section 5.2.3.

As noted in the section above, Isibonelo Colliery operates three open cast pits and employs a combination of strip and open cast mining methodologies.

5.2.2 Isibonelo Colliery Current Mining Methodology

5.2.2.1 Strip Mining

Coal is exposed by removing the overburden via dragline or truck and shovel operations; prior to removing the overburden, the topsoil is stripped and stored separately for re-use later during rehabilitation of the pit(s).

The dragline (**Figure 5-3: f**) (a large scale digging machine) is used by Isibonelo Colliery to remove hard overburden through bench stripping, while truck and shovel techniques are used to remove softer overburden materials (**Figure 5-3: i – j**). One dragline mines on either side of the ramp in the South Pit, and the second dragline mines the North and Central Pits. The Central Pit is typically mined from South to North while the north and south pit typically follow a southerly mining direction (away from the Steenkoolspruit).

A 'chop' limit of 15m and a maximum dig depth of 42m is applied for the draglines, along with double benching in order to maximise draglines' utilisation during stripping, over and above the more expensive truck and shovel techniques, during the removal of hard overburden materials. Isibonelo Colliery typically follows two approaches during stripping and benching, namely:

- Method 1: Is a single bench operation where all soft overburden is stripped by truck and shovel equipment and the hard overburden is bench stripped by the dragline. Some hard overburden can also be stripped in the isolated deep overburden blocks.

-
- Method 2: Is a double bench operation applied in the deep portions (where the dragline hard overburden bench exceeds the 42m depth / dig limit for the Marion 8200) of the pit.

As with many mining operations implementing open cast, strip, benching etc. mining methods, IC completes a multi-phased approach in that construction, operation, decommissioning and rehabilitation are undertaken concurrently. For purposes of this report, these phases have been generically defined below.

- Construction / Preparation: the preparatory works / activities typically associated with the development / establishment of a new pit but not including the extraction of coal;
- Operation: the activities associated with the extraction of coal from an open cast / pit;
- Decommissioning: the activities associated with the removal / dismantling of machinery / equipment / infrastructure no longer necessary to the operation;
- Rehabilitation: the activities associated with the initial backfilling, levelling and placement of topsoil to agreed level(s) (as per EMPR), fertiliser, re-vegetation and maintenance thereof;
- Closure: Cessation of mining operations in totality and the closure certificate has been applied for or issued.

All the above phases include continued monitoring and management of environmental aspects throughout.

5.2.2.2 Soil Handling

Overburden comprises the surface materials overlaying the mineral deposit / coal that require removal, while inter-burden refers to the materials located between mineral deposits. Spoils refers to the excavated materials (i.e. removed overburden) that will be used during rehabilitation.

In order to facilitate rehabilitation of open pits, IC undertakes sequential stripping and rehabilitation practices (**Figure 5-3: k**):

- Topsoil (the most fertile soils usually containing the vegetation seed bank) is removed first and is either stored in designated areas, or undergoes live placement. Live placement is the process of removing topsoil and immediately relocating this soil to a backfilled and levelled pit for rehabilitation purposes. IC removes topsoil sequentially along the high wall side in winter (in advance of mining) and places it on the levelled spoils. Topsoil is placed to minimum depth of 0.6m, shaped, fertilised and sown with an appropriate grass seed mix.
- Overburden / spoils is removed via the dragline or truck and shovel and stockpiled for reuse as fill material during pit closure. The backfilled pit is then levelled, using a dragline and bulldozer, and ready to receive topsoil as part of the rehabilitation plans.

5.2.2.3 Topsoil Berms

Prior to the commencement of the open cast / pit operations at Isibonelo Colliery, a berm was constructed along the Steenkoolspruit for the purpose of flood management. The berm was constructed from wetland soils stripped to a depth of 500mm from the spoils laydown area. The berm is approximately 3m high with an average slope of 1:5 on the Steenkoolspruit side, with the foot slope approximately 1:7 rising to a crest slope of 1:3.

During the initial mining operations, spoils / overburden removed from the open cast / pit were placed between this berm and the edge of the open cast / pit, ensuring that it does not encroach over the top of the berm into the river. No carbonaceous or potentially polluting material was used for berm construction and the berm has subsequently been re-vegetated to prevent erosion.

Topsoil stripped ahead of mining which cannot undergo live placement is stored in designated areas within the mine lease area (**Figure 5-4**). Isibonelo Colliery understands the importance of topsoil in rehabilitation and as such the volumes and stockpile location, as well as the quantities placed for rehabilitation, are monitored and recorded regularly.

5.2.2.4 Drilling and Blasting

Following from the above stripping, the exposed coal is drilled and blasted, before being placed into haul trucks for transportation to the crushed plant.

In some instances, the drilling and blasting of hard overburden materials is required. In these, instances, the drilling and blasting of hard overburden and inter-burden (material occurring in-between ore bodies, in this case between coal) occurs in advance of the dragline.

■ Overburden and Inter-burden Blasting

All overburden and inter-burden blasting is sequential, meaning the initiation of a blast within a single hole is delayed until the hole before has already been initiated and blasted i.e. during a blast event only a single hole will fire at a time.

The blast hole diameters do not exceed 271mm and the charge mass per hole does not exceed 1200kg. If the proposed holes are so deep that the charge mass will exceed 1200kg then the charge density or the hole diameter will be reduced to limit the charge mass per hole to 1200kg.

To minimise air blast, new technologies such as electronic detonators are being tested by mining operations. Furthermore, holes are set to fire progressively to the south away from sensitive areas to the north.

■ Coal blasting

Hole diameters for coal blasting do not exceed 127mm. In areas where 20 hole diameters of stemming cannot be applied because the holes are too short, hole diameters are reduced accordingly.

5.2.2.5 Coal processing – Crusher Plant

The extracted coal is delivered to the primary in-pit sizing plant prior to placement on the overland conveyor and relocation to the IC surge bunker and emergency stockpile area located near IC's offices and SSF conveyor system. The coal in the said bunker is then handed over to Sasol and transported to the SSF Secunda Complex via Sasol's overland conveyor (**Figure 5-3: l**).

The crusher plant is located 5 - 8m below ground-level with the overland conveyor exiting to ground-level at a 16 degree angle. The tipping ramp is about 15m above ground level with an additional 1 - 2m housing on top of this concrete structure. The tipping bay is enclosed by the steel housing and a security fence and lighting was installed around the plant (**Figure 5-3: e**).

5.2.3 Proposed Block Z Area

The mining methods 1 and 2 as detailed in Section 5.4.1 are proposed for Block Z, namely, dragline and truck and shovel.

The proposed Block Z area is to be mined as a western extension of the existing North Pit, in a southerly direction. Isibonelo Colliery has established a 500m buffer from the Dwars-in-die-weg-spruit 1:100yr floodline in an effort to mitigate potential impacts thereto.

The North Pit will be progressively extended by the dragline after the Kriel Colliery Pit 4 straightening. No box cutting is envisaged for the proposed Block Z operations and the dragline overburden / spoils at the end-cuts will therefore be profiled / rehabilitated immediately and in accordance Isibonelo Colliery EMPR.

A stormwater control berm is proposed along the western Block Z mining boundary between the proposed pit and the Dwars-in-die-weg-spruit riparian zone situated west of the site. This berm will serve as a clean / dirty water diversion and will prevent contaminated runoff from the opencast operations from contaminating the adjacent wetland areas.

5.3 Mine Infrastructure

The current layout of the Isibonelo Colliery mine area is shown in and the existing mine infrastructure in **Figure 5-2**.

5.3.1 Existing Mine Infrastructure

5.3.1.1 Conveyor

Coal is hauled from the pits to a central crushing plant (**Figure 5-3: e**) and transported via an overland conveyor to a common 8 000 ton open longitudinal surge bunker and emergency stockpile. Coal is loaded from this bunker onto another conveyor and transported to the central coal stockpile at the SSF Secunda Complex. The conveyor belt runs at a speed of 4.2m / s over a distance of 12km and is covered with suitably covered by metal sheeting (**Figure 5-3: a – b**).

Belt turnovers (**Figure 5-3: b**) are utilised to minimise spillage along the trajectory of the conveyors. Dust mitigation is performed via water spraying at the transfer points which are located within the strip mine area and at the Syferfontein coal handling area. Wash down water at the transfer points is collected and transferred to evaporation and settling dams where the coal is recovered and fed back into the system.

5.3.1.2 Access Roads

Access to the Isibonelo Colliery offices is via the N17 and R547, with the opencast operation accessed via the internal Isibonelo Colliery access road, previously the dragline walkway, which was constructed adjacent to the Sasol overland conveyor belt. Haul roads within the mine area are present out of the box cuts to the berm, crusher plant and parking area (**Figure 5-3: c - d**).

5.3.1.3 Water Supply

Potable water is supplied via Syferfontein Colliery's Rand Water pipeline which runs directly to the main offices, workshops and change houses. This water is stored in a 10 000ℓ steel tank before being distributed to the pit offices.

Water required for the crusher, service systems and dust suppression is extracted from the dirty water system (**Figure 5-3: g – h**).

5.3.1.4 Electricity Supply

Isibonelo Colliery electricity is supplied from Syferfontein Colliery via power supply cables installed along the conveyor route, at a tension of 132kV and 22kV. The 132kV supply is a dual feed system on common suspension structures. Power is supplied to the strip mine areas via substations at a rate of 45MVA – 20MVA. The 22kV power supply is a permanent line which supplies the necessary power required to walk the dragline to a new strip mine site and is also used as a ring-feed.

5.3.2 Proposed Infrastructure for Block Z

In order to include the proposed Block Z operations into current Isibonelo Colliery mining operations, the service and mine infrastructure present at Isibonelo Colliery will be extended as required to accommodate the additional operations. It is envisaged that additional haul roads will be constructed within the proposed Block Z area to provide for access and coal transportation. Additionally, the existing water and electricity supply line are to be extended into the Block Z area.

The dragline and equipment currently utilised by Isibonelo Colliery will be transferred to the proposed Block Z area.

The extracted coal will be transported to the inpit crushing plant located at the existing Isibonelo Colliery operations prior to transfer via the existing overland conveyor to the Syferfontein bunker.

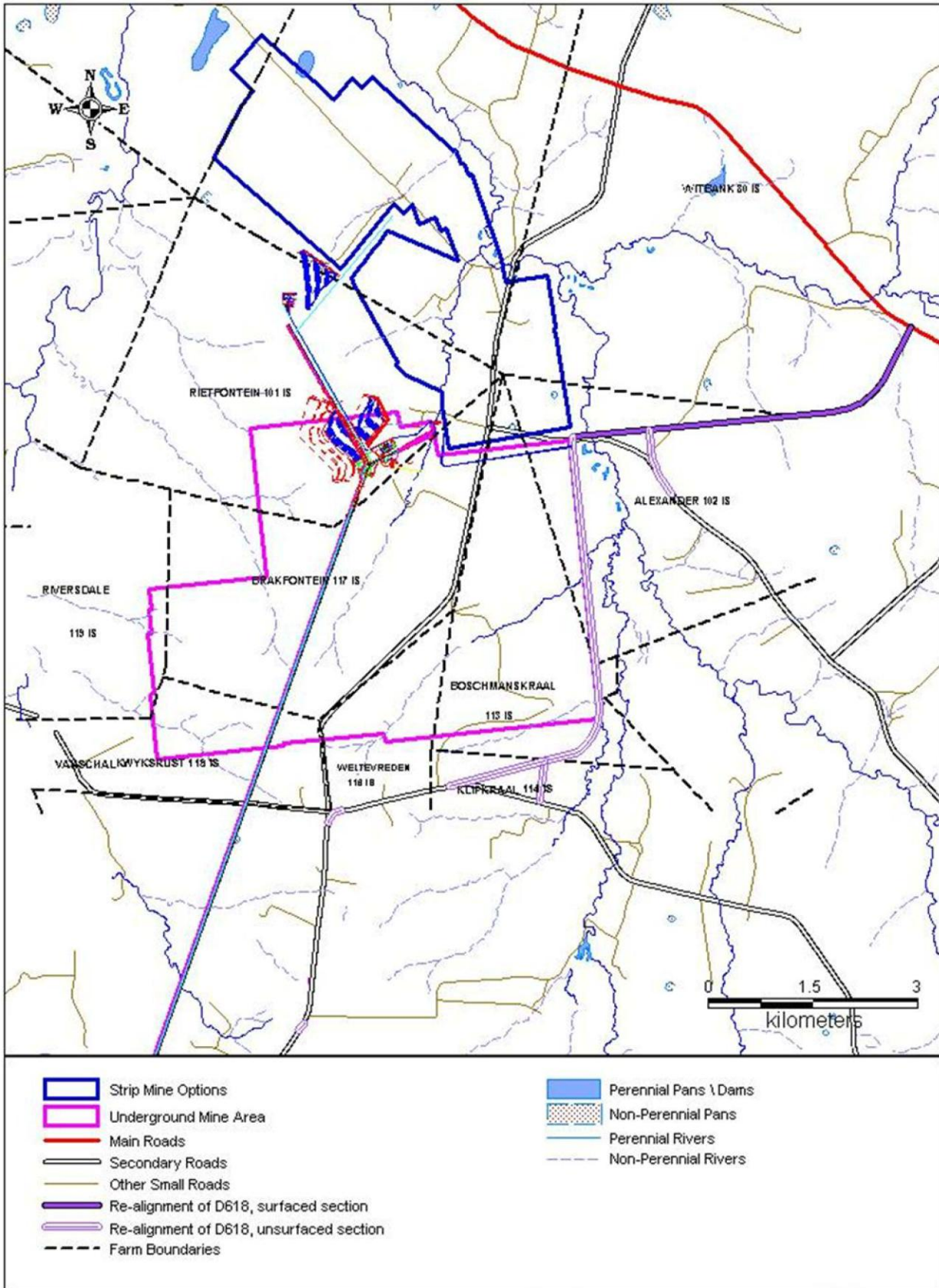


Figure 5-2: Isibonelo Colliery Road and Infrastructure plan (Consolidated Isibonelo Colliery EMPR, 2012)



a) Overland conveyor covered with metal sheeting



b) Conveyor Belt turnover point near the Syferfontein Bunker



c) Isibonelo Colliery Pit access road



d) In-pit haul roads



e) Operational in-pit sizing



f) One of the two Draglines operated at Isibonelo Colliery

	
<p>g) Water extraction point</p>	<p>h) Dust suppression along haul and access roads</p>
	
<p>i) Truck and shovel methods of overburden material</p>	<p>j) Truck and shovel methods of overburden material</p>
	
<p>k) Topsoil placed and overburden stockpiles</p>	<p>l) Syferfontein bunker storage before transfer to Sasol overland conveyor</p>

Figure 5-3: Existing mine infrastructure at Isibonelo Colliery

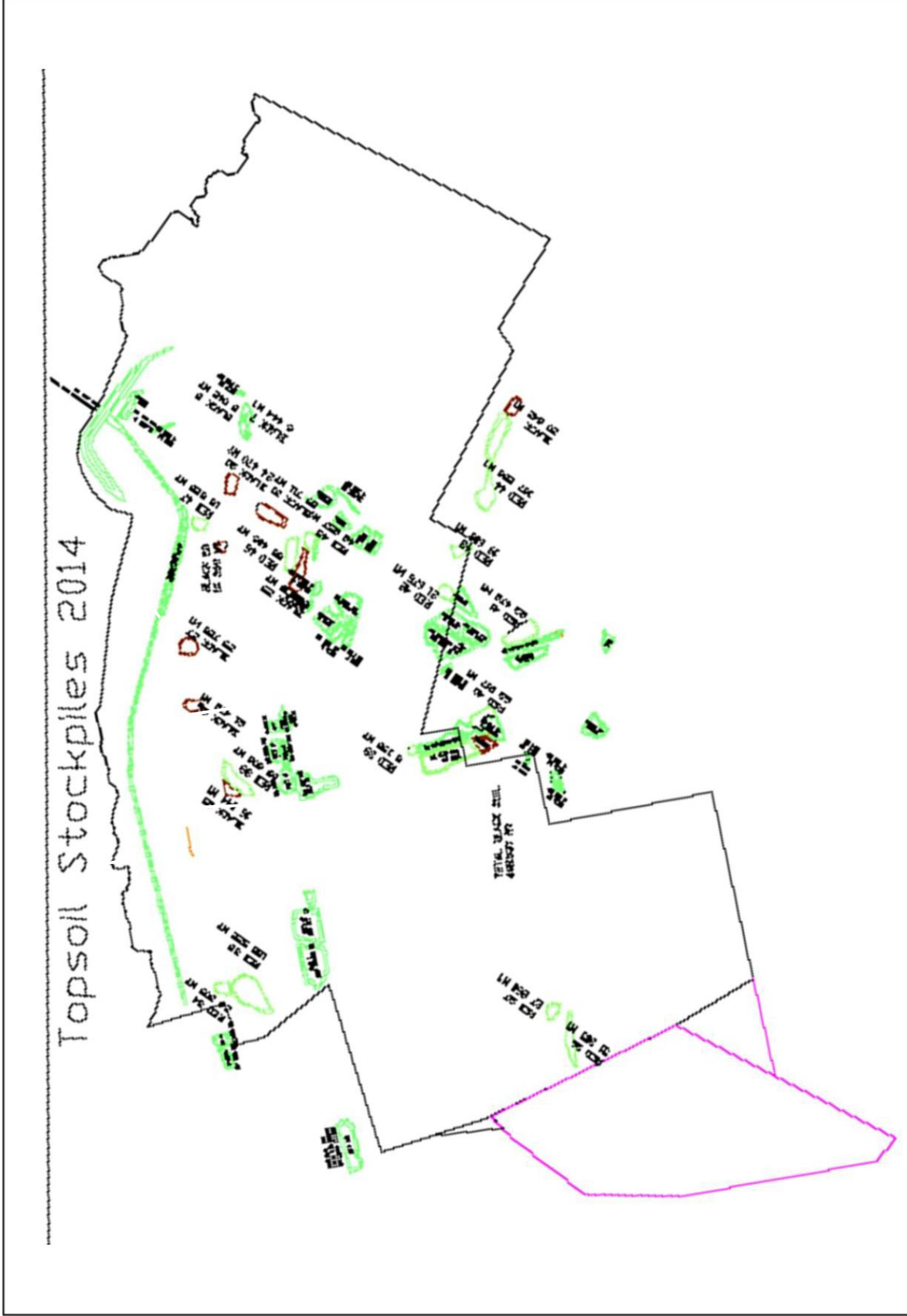


Figure 5-4: Topsoil stockpile locations as of end 2013

6 Alternatives Considered

6.1 Kriel Colliery Underground Mining

Kriel Colliery is an open cast (strip and benching) and underground coal mining operation (board and pillar mining using a continuous liner) located to the west of Isibonelo Colliery.

Board and pillar mining is typically used for flat or gently dipping bedded ores or coal seams. Once the coal seam has been accessed, the ore is mined utilising a regular grid of mining tunnels and involves progressively excavating panels into the coal seam whilst leaving behind pillars of coal to support the mine. The coal is then removed in a regular pattern while the rooms are mined out through the tunnels by drill and blast methods or a Continuous Miner and deposited onto a conveyor. The open chambers remaining following coal removal is referred to as a stope. The remaining coal contained within the pillars may be won at closure by a retreating system, starting at the farthest point from the stope access, allowing the roof to collapse and fill in the stope. This allows a greater recovery as less ore is left behind in pillars.

As with Isibonelo Colliery, Kriel Colliery mines the No. 4 coal seam via Kriel Colliery previously held the mining rights for the proposed Block Z area and initially proposed to extend their current underground operations to mine the No.4 coal seam within this area.

Following feasibility and baseline environmental assessments / investigations Kriel Colliery determined that the proposed use of board and pillar mining methods in the proposed Block Z area would not be economically viable due to several factors, *inter alia*:

- Mine health and safety risks, and financial implications associated with mining underneath the Dwars-in-die-wegspruit were to high; and
- The Block Z site is secluded from Kriel Colliery's existing infrastructure.

AAC Isibonelo Colliery completed preliminary investigations into the feasibility of mining the No.4 coal seam within the Block Z area, and determined that it would be more feasible to employ open cast mining methods to access this coal. Subsequently, as the coal seam is located adjacent to Isibonelo Colliery's' North Pit, AAC took a decision to transfer Kriel Colliery's' Block Z mining right to Isibonelo Colliery in orDwars-in-die-weg-apruit o pursue open cast mining by extending the existing North Pit. Kriel Colliery's' underground mine extension proposal was cancelled.

6.2 Alternative Site Selection

As noted in Section 5.1.2, Isibonelo Colliery originally proposed to mine an area south of its existing Central Pit (approved in the Consolidate EMPR currently implemented by Isibonelo Colliery) in order to fulfil its supply agreement with Sasol. **Figure 6-1** indicates the area proposed for mining by Isibonelo Colliery. Isibonelo Colliery proposed to mine this area by extending the Central Pit in a southerly direction and continuing to utilise current open cast mining methods i.e. dragline and truck and shovel.

Isibonelo Colliery as part of their environmental responsibilities has constructed a Stormwater Diversion Channel (SWDC) (red line on **Figure 6-2**), located to the west south west of the opencast operations, which serves to prevent clean water from the natural environment entering the south pit. The clean water is subsequently discharged into the DeBeerspruit which flows to the north east of the mining area. The existing SWDC is authorised in terms of the relevant legislation within the current mining EMPR.

The existing SWDC is located in the previously proposed mining area, that being south of the Central Pit. Therefore, should Isibonelo Colliery extend its current open cast mining south (as previously proposed), it would result if the decommissioning of this SWDC and require the construction of a new SWDC to ensure that the clean water is diverted away from the South and Central Pits.

Phase 1 is the existing SWDC (noted as the red line in **(Figure 6-2)**, Phase 2 is an amended / additional SWDC located south east of the mining operations and Phase 3 (blue line on **Figure 6-2)** was to be installed to the west south west of the mining operations.

Further to the above, Isibonelo Colliery has located its spoils on this area south of the central pit. The open cast mining of this area would require the relocation of the spoils and increased operational costs which directly impacted the feasibility thereof.

However, following discussions between Isibonelo Colliery and Sasol, an agreement was reached and the original proposed area south of Central Pit was subsequently transferred to Sasol for mining and Isibonelo Colliery would identify a suitable alternative. Sasol propose to mine the area south of the Central Pit via underground mining methods.

Once it was established that the Block Z area could not be economically mined by Kriel Colliery, it was identified by Isibonelo Colliery as a suitable alternative (as it is anticipated to provide similar coal volumes at a comparable operational cost).

6.3 No-Go Option

The 'no-go' option is a scenario in which mining and/or environmental authorisation is not awarded to Isibonelo Colliery for the proposed Block Z area. The proposed Block Z area lies between the Kriel Colliery and Isibonelo Colliery mining operations, and in terms of physical proximity, the area constitutes a viable coal reserve to both collieries. However, due to the geological features present in the region, the proposed Block Z area cannot be mined by Kriel Colliery.

Coal mining is responsible for approximately 77% of South Africa's primary energy supply (www.energy.gov.za, accessed 25/06/2014), exploitation of both commercially and environmentally viable coal bearing areas (such as the proposed Block Z area) is vital to the continued growth of the South African economy.

Although, the proposed mining of the Block Z area will not increase Isibonelo Colliery's existing life of mine (LoM); it will increase its annual production rate and ensure contractual obligations to SSF (the downstream economic importance of which has been expanded upon in Section 4).

Furthermore, Isibonelo Colliery currently employs 316 permanent staff and 887 individuals who are employed on a contractual basis. **Table 4-1** presents the percentage of the current Isibonelo Colliery employees comprising previously disadvantaged individuals (as of June 2014). Isibonelo Colliery noted that an estimated 27% of the current workforce will be dedicated to the proposed Block Z project.

The establishment of the proposed Block Z mining operation will result in a currency injection into secondary industries such as contractors, manufacturers and suppliers. In addition to this, the Social and Labour Plan (SLP) will not be implemented to its full extent; resulting in lower investments within the local communities and a reduction in the potential for community upliftment.

In summation, should the 'no-go' option be effected, the following eventualities may transpire:

- Inability for Isibonelo Colliery to fulfil contractual obligations with SSF;
- The coal reserves within the Block Z area will remain a viable but untapped commercial resource;
- Reduction in the contribution to the local and national economy (both from Isibonelo Colliery and SSF processes);
- An approximate loss of 27% of the current Isibonelo Colliery workforce that are earmarked for deployment at the proposed Block Z opencast area; and
- Reduction in downstream business service opportunities to secondary industries.

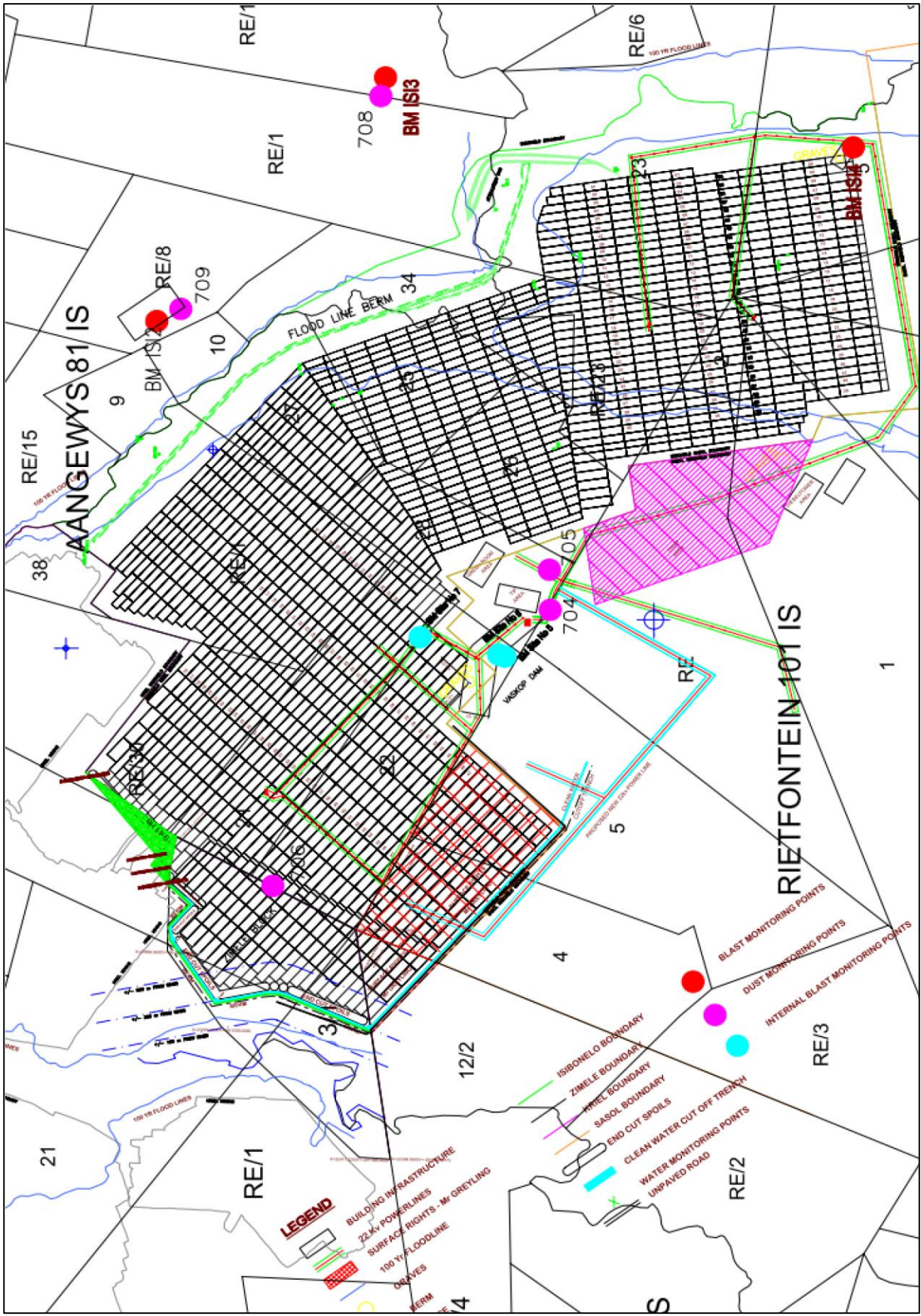


Figure 6-1: Isibonelo Colliery operations noting Block Z and the previously identified area south of Central Pit

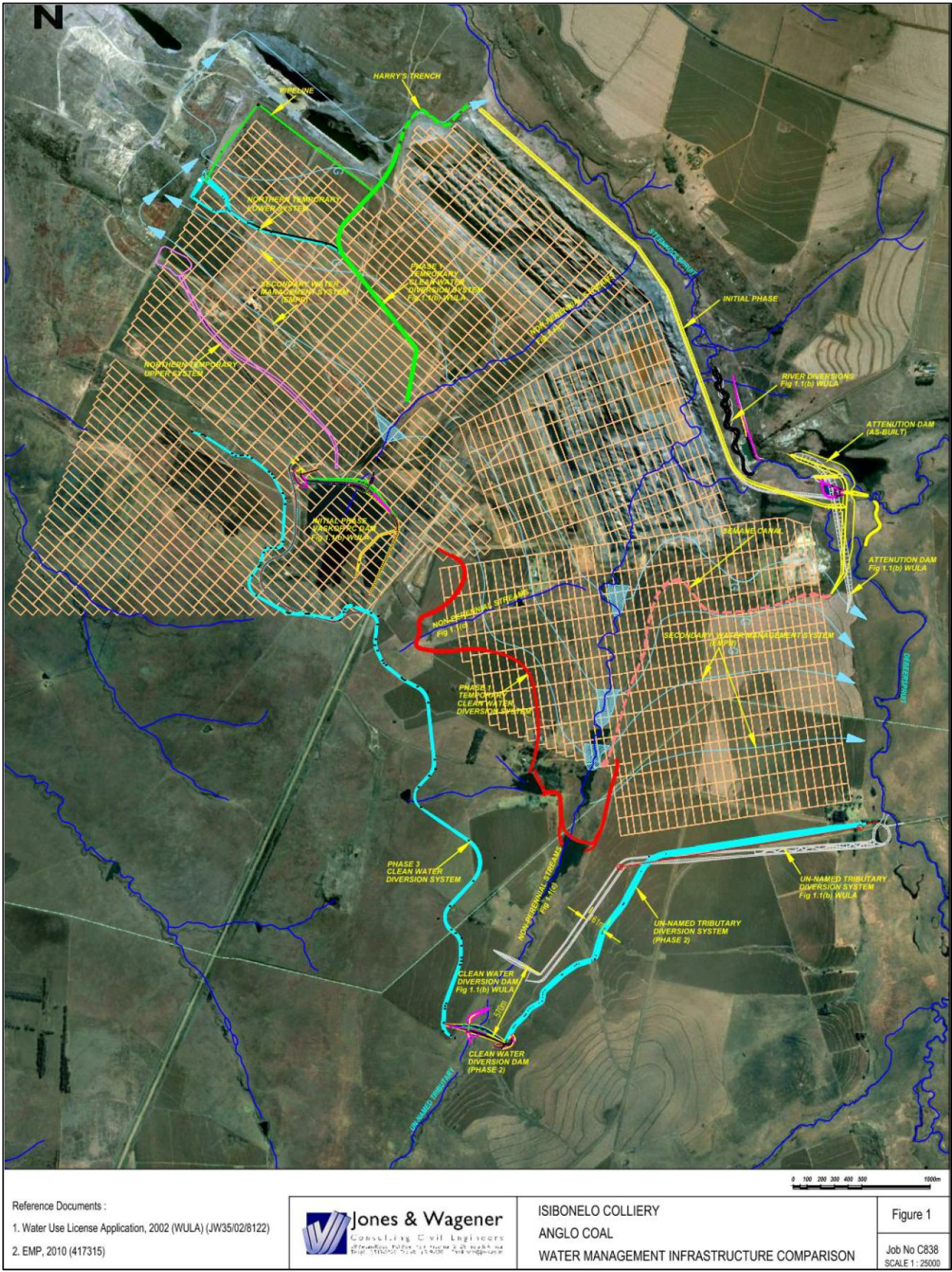


Figure 6-2: Previously proposed mining through SWDC Phase 1 (Jones and Wagner, 2012)

7 Baseline Environment

The following environmental aspects are detailed on a regional level (as applicable) which provides a broad description of the conditions that can be expected within the district municipality and / or the Olifants and Letaba river catchment areas. A local description of the area surrounding the proposed Block Z project area is then provided to describe the environmental status quo of the Block Z project footprint area and potentially directly affected surrounds.

7.1 Climatology and Meteorology

The eMalahleni Local Municipality as a whole has a temperate climate with warm to hot summers and mild winters, with night time temperatures cold enough for frost formation. The area receives predominantly summer rainfall as a result of low pressure troughs that form over the central plateau. The eastern parts of the region experience generally higher rainfall than the western parts and summer rainfall events are generally associated with severe thunderstorms.

Transport of pollutants is dependent on the state of the atmosphere (i.e. the stability regime) and circulation of air. Atmospheric transport within the area occurs both vertically and horizontally. Vertical transport is primarily due to deep convection. This convection transports air and any air pollutants contained therein from the surface into the upper atmosphere. Vertical motion is eventually inhibited due to the absolutely stable layers found preferentially at ~700 hPa, ~500 hPa and ~300 hPa on no-rain days. These stable layers trap pollutants at lower atmospheric levels and so influence the transport of pollutants over the whole of southern Africa (Cosijn and Tyson, 1996; Garstang et al., 1996)

On a more local scale, like that of the eMalahleni Local Municipality, vertical motion and hence dispersion of pollutants is inhibited by surface inversions that form during the night predominantly during winter. These inversions are a result of radiational cooling at the surface and are most pronounced just before sunrise. In the presence of sunlight the inversions begin to break down through convective heating and the height of the mixed layer is increased, allowing for dispersion of pollutants trapped at lower levels (Cosijn and Tyson, 1996; Tyson and Preston-Whyte, 2000).

In terms of horizontal transport, local winds may transport pollutants within the vicinity of their source. These include: anabatic and katabatic winds, valley and mountain winds, and mountain-plain and plain-mountain winds (Tyson and Preston-Whyte, 2000). On a larger scale, various synoptic systems affect atmospheric circulation over the eMalahleni Local Municipality as well as circulation over the whole of southern Africa. These systems include: continental highs, ridging highs, westerly lows, westerly waves and easterly waves, which transport air and any pollutants contained within over larger distances (Garstang et al., 1996; Tyson et al., 1996).

In the eMalahleni region, transport associated with continental highs occurs all year round, but with greater frequency during winter. Easterly waves show an annual cycle, peaking in summer, with extremely seldom occurrences in winter. Transport associated with ridging highs and westerly waves dominates during winter (Garstang et al., 1996; Tyson and Preston-Whyte, 2000). During winter, ambient air quality can either deteriorate with the occurrence of continental highs which decrease the dispersion potential of the atmosphere or improve as a result of westerly waves which transport clean, mostly maritime air over the region. During summer, frontal and convective storms reduce ambient pollutant concentrations hence improving air quality in the region.

Recirculation is also important in the transport of pollutants and occurs frequently over southern Africa due to the high frequency of anticyclonic circulations (Garstang et al., 1996; Freiman and Piketh, 2003). Recirculation occurs when air is transported away from its source and returns in the opposite direction after rotating cyclonically or anticyclonically. Recirculation can occur at a number of scales from sub-continental to regional, and an interaction between different scales of wind systems results in further recirculation (Tyson et al., 1996; Tyson and Preston-Whyte, 2000; Freiman and Piketh, 2003).

7.1.1 Meteorological Overview

Meteorological conditions affect how pollutants emitted into the air are directed, diluted and dispersed within the atmosphere, and therefore incorporation of reliable data into an Air Quality Impact Assessment (AQIA) is of the utmost importance.

The major factors which affect the dispersion of pollutants from an emission source are the wind speed and direction, and atmospheric turbulence. Higher wind speeds are associated with greater dilution as a larger volume of air passes the emission point, particularly for low level and ground emissions. However, high wind speed may reduce the plume height from elevated stacks, leading to higher ground level concentrations near the source than under lower wind speeds. Wind direction is important in determining where the pollutant is carried. The atmosphere is generally turbulent; with mixing and dilution occurring in response to mechanical mixing of air masses heating that causes convection (United States EPA, 2003).

7.1.1.1 Local Wind Field

Wind roses are useful for illustrating the prevailing meteorological conditions of an area, indicating wind speeds and directional frequency distributions. In the following wind roses, the colour of the bar indicates the wind speed while the length of the bar represents the frequency of winds *blowing from* a certain direction (as a percentage).

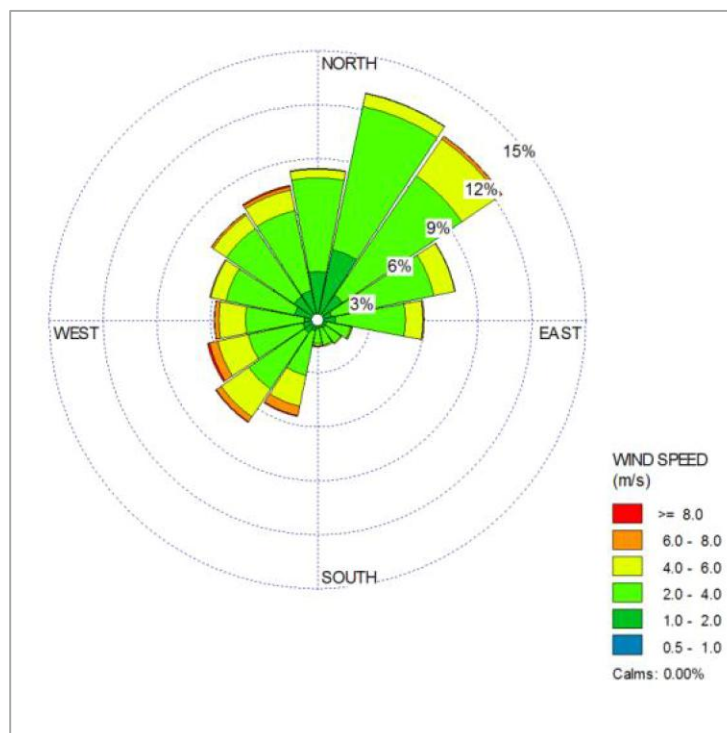


Figure 7-1: Surface wind rose plot for Secunda (June 2009 to July 2012)

Winds in the Secunda area indicate a very strong north easterly wind component; with winds originate predominantly from the north-north-east and north-east (**Figure 7-1**). Wind speeds are moderate to fast, with most winds occurring between 2 and 4 m / s with a frequency of 60.8% (**Figure 7-2**). Winds occur with a low frequency from the southerly and westerly directions, with these winds also indicating very low wind speeds. Calm conditions, which are defined as wind speeds less than 0.5 m / s, were recorded 0% of the time.

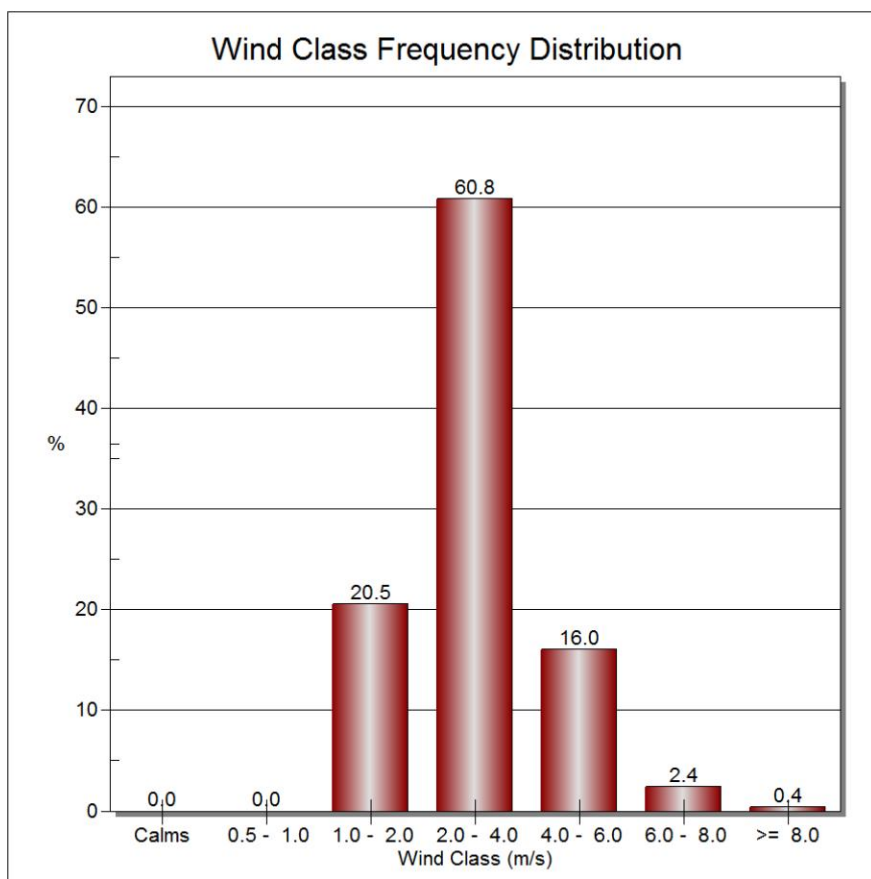


Figure 7-2: Wind class frequencies for Secunda (June 2009 – July 2012)

Variations in seasonal winds are illustrated in **Figure 7-3**. The winter months indicate the strong north-northeasterly and south-westerly components; with the wind speeds ranging between 2 and 4m / s. Winds originate predominantly from southerly and northerly directions during winter. In summer, the winds originate predominantly from the northeast. Direction shifts slightly during autumn indicating winds predominantly from the north-northeast and a stronger southwest component. During spring, the winds originate predominantly from the westerly, northerly and easterly sectors.

For the dispersion of emissions, during the spring and winter months when highest winds are experienced in the area, the southeast and west parts of the mine will be affected. During the summer months, slow wind speeds associated with more stable conditions will be experienced within the area. The dispersion of pollutants in these conditions is low, which can potentially lead to a greater impact of emissions in close proximity to mine operations.

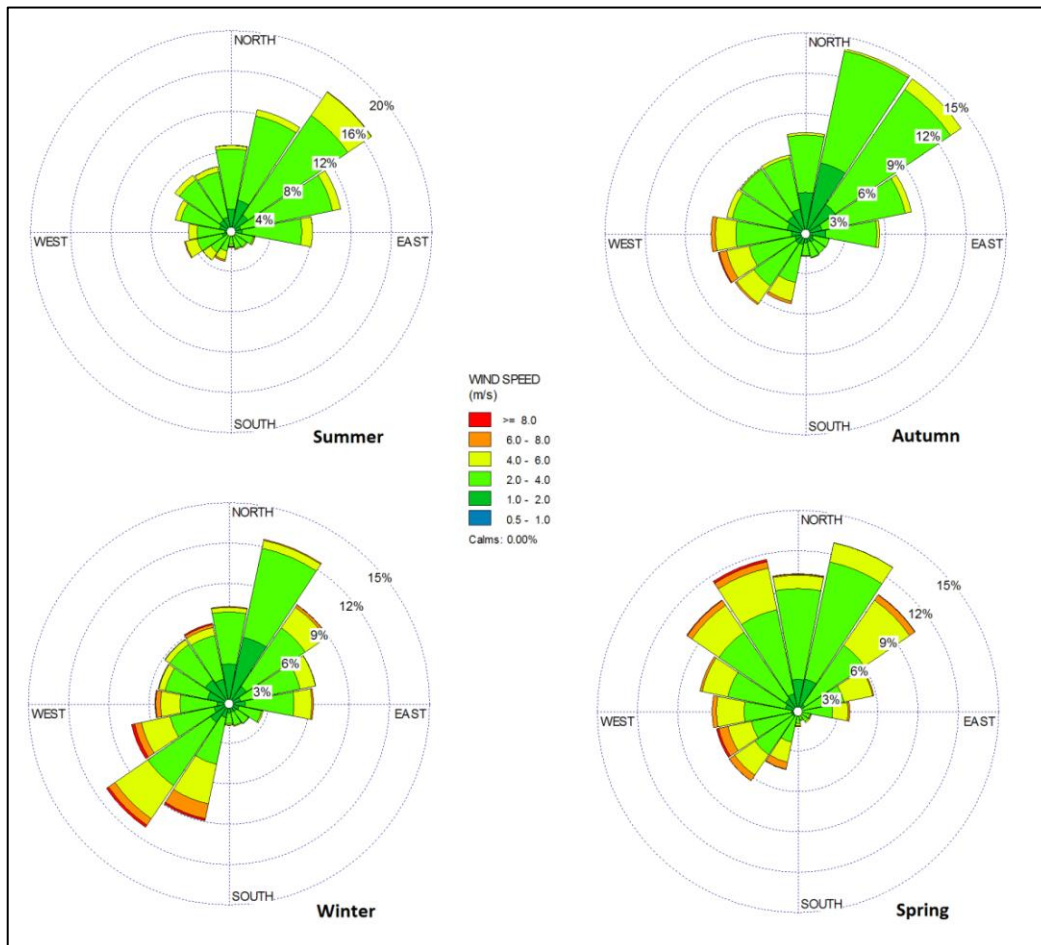


Figure 7-3: Seasonal surface wind roses for Secunda (June 2009 – July 2012)

Diurnal surface wind roses are presented in **Figure 7-4**. Highest wind speeds are recorded during the daytime hours (06:00 – 18:00), with the majority of speeds occurring between 4–8 m / s, with winds originating predominantly from the north-northeast, west-southwest and southwest directions. During the night-time hours (18:00 – 06:00), winds are faster, with the majority of speeds between 2–3 m / s, although winds still predominantly originate from the north-northeast and northeast.

For the dispersion of emissions, the daytime hours would experience the highest wind speeds, with emissions being dispersed to the northeast and south-southwest of mine. During the night-time hours, slow wind speeds associated with more stable conditions will be experienced within the area. The dispersion of pollutants in these conditions is low, which can potentially lead to a greater impact of emissions in close proximity to mine.

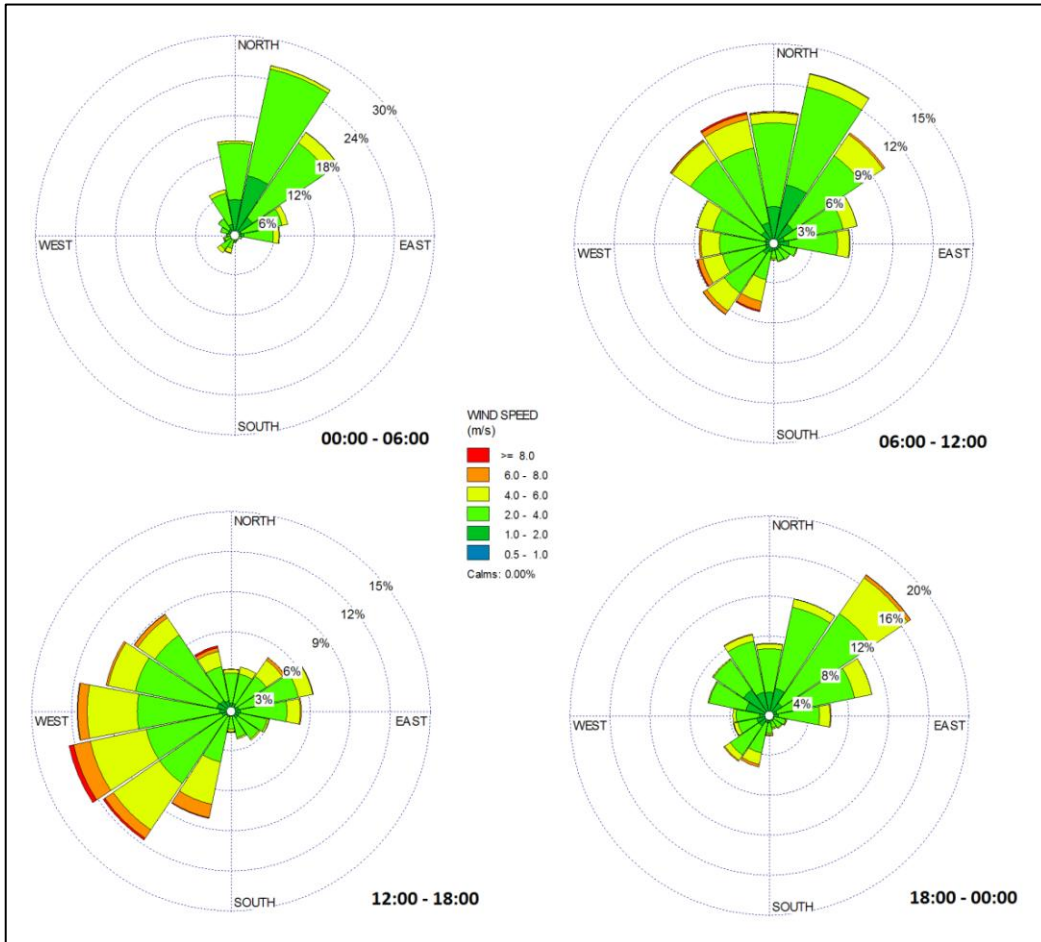


Figure 7-4: Diurnal surface wind roses for Secunda (June 2009 – July 2012)

7.1.1.2 Temperature

Figure 7-5 illustrates the average temperatures experienced in the Secunda area. The maximum temperature recorded for the period June 2009 to July 2012 was 33.8°C in November 2011, while the minimum temperature recorded was -7.4°C in June 2010. Average temperatures remain relatively stable throughout the years, with an average temperature of 15.5°C.

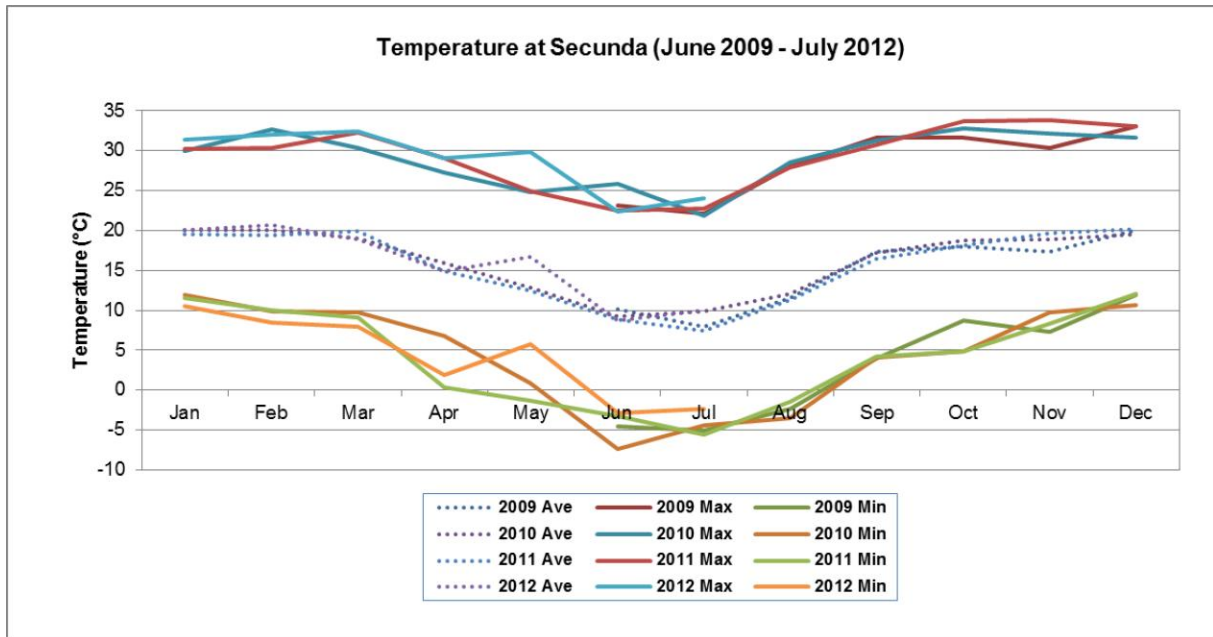


Figure 7-5: Average hourly temperatures for Secunda (June 2009 – July 2012)

7.1.1.3 Rainfall

Monthly rainfall recorded in the Secunda area is illustrated in **Figure 7-6**. This area falls within a summer rainfall region. Rainfall has the potential to remove pollutants from the air, especially particulates, thereby improving the air quality situation in high rainfall areas. During the summer months, when rainfall is high, it is possible that the air pollution situation in the Isibonelo Colliery mining area is good due to the high rainfall. Air pollution during the winter months could be potentially more severe due to the low rainfall, as well as the high domestic fuel burning experienced during these months.

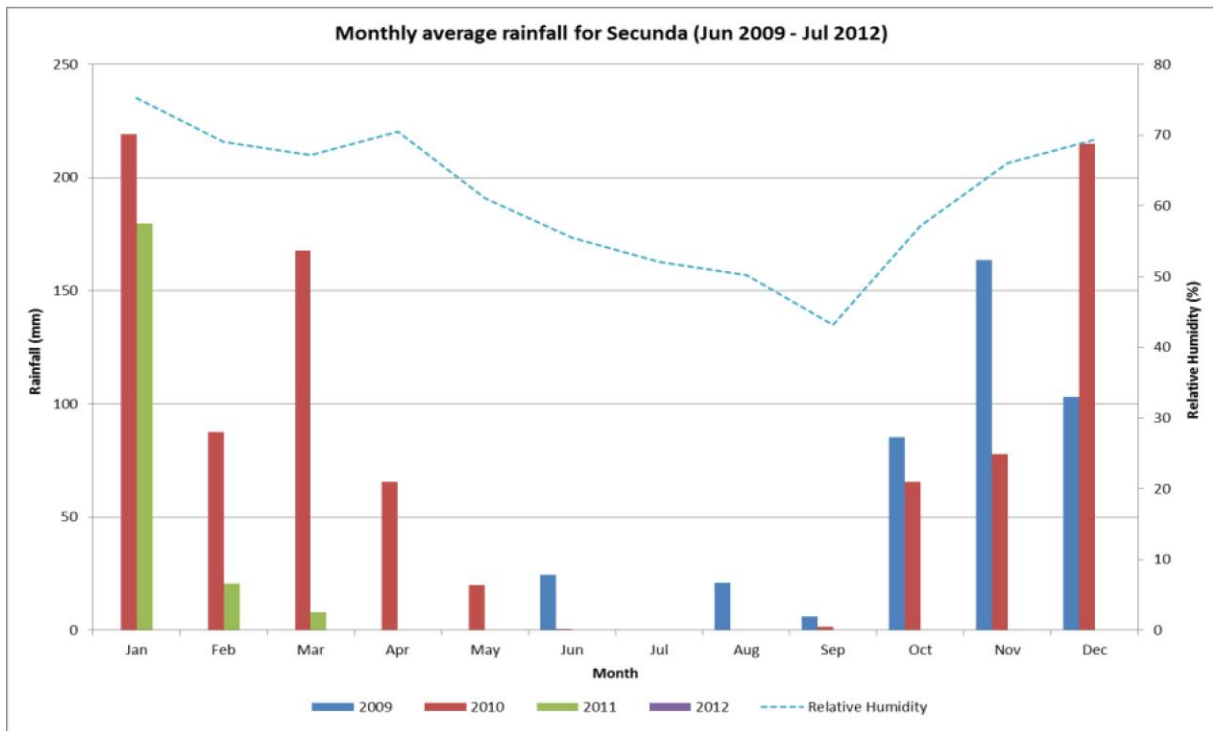


Figure 7-6: Monthly rainfall for Secunda (June 2009 – July 2012)

7.2 Air Quality

7.2.1 Regional Air Quality

On 4 May 2007 the Minister of Environmental Affairs and Tourism formally declared the eastern part of Gauteng and the western part of Mpumalanga an air pollution hotspot, to be known as the “The Highveld Priority Area”, a national air pollution hotspot in terms of Section 18(1) of the NEM:AQA. By declaring a priority area, authorities recognise that air quality within these areas is generally regarded as being poor, and frequently exceed ambient air quality standards (DEA, 2010).

The Highveld Priority Area extends from the eastern parts of Gauteng, to Middelburg in the north and the edge of the escarpment in the south and east. Major towns occurring within this region include eMalahleni (Witbank), Middelburg, Secunda, Standerton, Edenvale, Boksburg, Benoni and Balfour. The area incorporates portions of the Gauteng and Mpumalanga Provinces. The area is contained within one metropolitan municipality (Ekurhuleni) and three district municipalities (Sedibeng, Gert Sibande and Nkangala) and more specifically nine local municipalities: Lesedi Local Municipality (Sedibeng); Govan Mbeki Local Municipality (Gert Sibande); Dipaleseng Local Municipality (Gert Sibande); Lekwa Local Municipality (Gert Sibande); Msukaligwa Local Municipality (Gert Sibande); Pixley ka Seme Local Municipality (Gert Sibande); Delmas Local Municipality (Nkangala); eMalahleni Local Municipality (Nkangala); and Steve Tshwete Local Municipality (Nkangala).

The proposed Isibonelo Colliery Block Z area is located within the eMalahleni Local Municipality in the Nkangala District and therefore falls within the boundaries of the Highveld Priority Area. This implies that authorities may impose measures on Isibonelo Colliery and other mines and industries within this area in order to improve air quality in the region.

Although eMalahleni was traditionally known for coal mining and electricity production, other industries have also developed in the town, making eMalahleni a prominent industrial node. This includes metallurgical enterprises such as the production of steel, chrome and vanadium (ELM IDP, 2013). Potential air pollution sources surrounding the proposed Isibonelo Colliery Block Z area include:

- Coal fired power stations;
- Coal mining operations;
- Domestic fuel burning;
- Biomass burning (during late winter and early spring);
- Agricultural activities; and
- Vehicular emissions.

To the northwest of Isibonelo Colliery is Eskom’s Matla and Kriel coal-fired power stations, with the mining area east of the proposed site. On the southern side of the N17 road, south of the colliery, the largest industry in the area is SSF. East and west of the colliery is the mainly farms. All of these industries potentially contribute emissions to the ambient air. In addition to the industries, numerous road networks exist in close proximity to Isibonelo including the main N17 road, potentially contributing high levels of Nitrogen Oxides (NO_x), Sulphur Dioxide (SO₂) and Particulate Matter (PM)₁₀ to the ambient air. Domestic fuel burning results in high particulate matter emissions, with the main domestic fuel burning areas located to the south of Isibonelo Colliery (Trichardt residential area).

An ambient monitoring station is currently operated by Department of Environmental Affairs (DEA) in Secunda. The parameters measured at the station include relative humidity, wind speed, wind direction, barometric pressure, solar radiation, ambient temperature, rainfall, particulate matter, oxides of nitrogen and sulphur dioxide. The ambient concentrations of pollutants applicable to Isibonelo Colliery for the period January 2011 December 2012 are stipulated in **Table 7-1**.

Table 7-1: PM10, SO2 and NOX ambient concentrations measured at the Secunda Monitoring Station for the period January 2011 to December 2012

Pollutant	Averaging Period	Ambient Concentration ($\mu\text{g} / \text{m}^3$)
PM ₁₀	Annual	68.2
	24 Hours	65.9
SO ₂	Annual	23.1
	24 Hours	13.5
	1 Hour	17.3
NO _x	Annual	23.6
	1 Hour	18.1

In addition to the above mentioned neighbouring sources, numerous areas of exposed lands (agricultural land) and unpaved roads surround Isibonelo Colliery, all contributing high levels of particulate matter emissions to the ambient air.

7.2.2 Local Air Quality

7.2.2.1 Dust Fallout Monitoring

Dust fallout monitoring at the Isibonelo Colliery commenced in 2009. Five dust fallout monitoring units were installed at locations within the Isibonelo Colliery property boundary, and five monitoring points were installed at different residential areas surrounding the mining areas. Descriptions and location of these units is presented in **Table 7-2**.

Table 7-2: Coordinates of the existing dust fallout monitoring points at Isibonelo Colliery

Site	Site Name	Classification	Latitude	Longitude
1	Mr Henry Dunn	Residential	26°18'30.0" S	29°17'1.90" E
2	Mr Dunn	Residential	26°19'15.9" S	29°17'56.7" E
3	Mr JJ Swart (Koos)	Residential	26°19'23.2" S	29°15'55.7" E
4	Mr Venter	Residential	26°20'20.7" S	29°18'56.8" E
5	Conveyor Belt	Non-residential	26°25'46.3" S	29°14'8.00" E
6	South of Bunker	Non-residential	26°26'0.20" S	29°13'58.2" E
7	Circular Stockpile	Non-residential	26°25'57.5" S	29°13'44.6" E
8	De Wet Farm	Residential	26°26'38.1" S	29°14'5.10" E
9	Tip Area	Non-residential	26°19'53.5" S	29°15'46.3" E
10	Diesel Power	Non-residential	26°19'52.0" S	29°15'54.9" E

A summary of monthly dust fallout rates at Isibonelo Colliery is presented in **Table 7-3** and **Figure 7-7**, which details the data recorded since the commencement of the monitoring in 2009. Monitoring points which fall within a residential area include Mr Henry Dunn, Mr Dunn, Mr JJ Swart Farm, Mr Venter and De Wet Farm and therefore are compared to the NEM:AQA residential standard of 600 mg / m² / day. The sites that fall within an industrial area include Conveyor Belt, South of Bunker, Circular Stockpile, Tip Area and Diesel Power, and these will be compared to NEM:AQA non-residential standard of 1,200 mg / m² / day.

The monthly average dust fallout rates at Mr JJ Swart Farm and De Wet Farm indicate exceedances of the residential standard over the monitoring period. The remaining residential sites are compliant with the standard. Mr Venter experienced a dust fallout rate that exceeds the residential standard during the month of November, although remains compliant as two exceedances of the dust fallout standard are allowed within a year, provided they are not sequential months.

Exceedances of the NEM:AQA non-residential standard were experienced at the Diesel Power industrial site during winter and summer periods. This site is located at the bulk fuel storage tank farm, where haul trucks and other vehicles come and go. The elevated dust fallout rates at this site can be attributed to the dust caused during vehicle entrainment. The dust fallout exceedances experienced during winter months (June) may be due to the minimum amounts of rainfall occurring in the region. The higher dust fallout rates experienced in spring and summer months may be due to the high winds in the region.

Table 7-3: Monthly Average Dust Fallout Monitoring Results for Isibonelo Colliery for period 2009 to 2012

Site Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mr Henry Dunn	65.5	170.0	321.3	81.8	76.3	127.5	80.8	177.3	197.3	292.0	125.3	138.0
Mr Dunn	90.3	255.3	85.3	56.5	67.0	101.0	60.5	93.3	105.3	191.3	204.5	137.5
Mr JJ Swart (Koos)	136.0	296.7	544.0	496.3	482.5	744.8	468.8	1211.3	650.3	551.8	331.3	452.0
Mr Venter	185.0	437.0	197.0	180.7	426.0	266.8	253.3	152.3	357.3	446.3	863.5	564.0
Conveyor Belt	203.3	312.8	510.5	312.0	400.5	512.0	316.0	705.5	509.8	753.5	583.0	327.0
South of Bunker	55.0	44.3	253.0	151.8	126.8	257.5	177.0	307.0	265.5	466.5	418.5	125.5
Circular Stockpile	81.0	30.5	172.3	110.3	72.3	79.0	129.0	214.0	192.3	497.3	232.8	191.0
De Wet Farm	45.0	64.3	133.8	59.5	126.0	128.3	1061.3	56.7	1641.5	659.8	280.3	148.0
Tip Area	144.3	72.3	190.7	363.3	262.3	488.3	357.7	509.8	669.5	1013.8	661.0	643.5
Diesel Power	556.7	254.0	425.3	227.0	690.0	1516.7	745.3	1727.7	1413.0	1665.7	3347.3	4417.0
Numbers in <i>bold</i> indicate exceedances of the dust fallout standards												

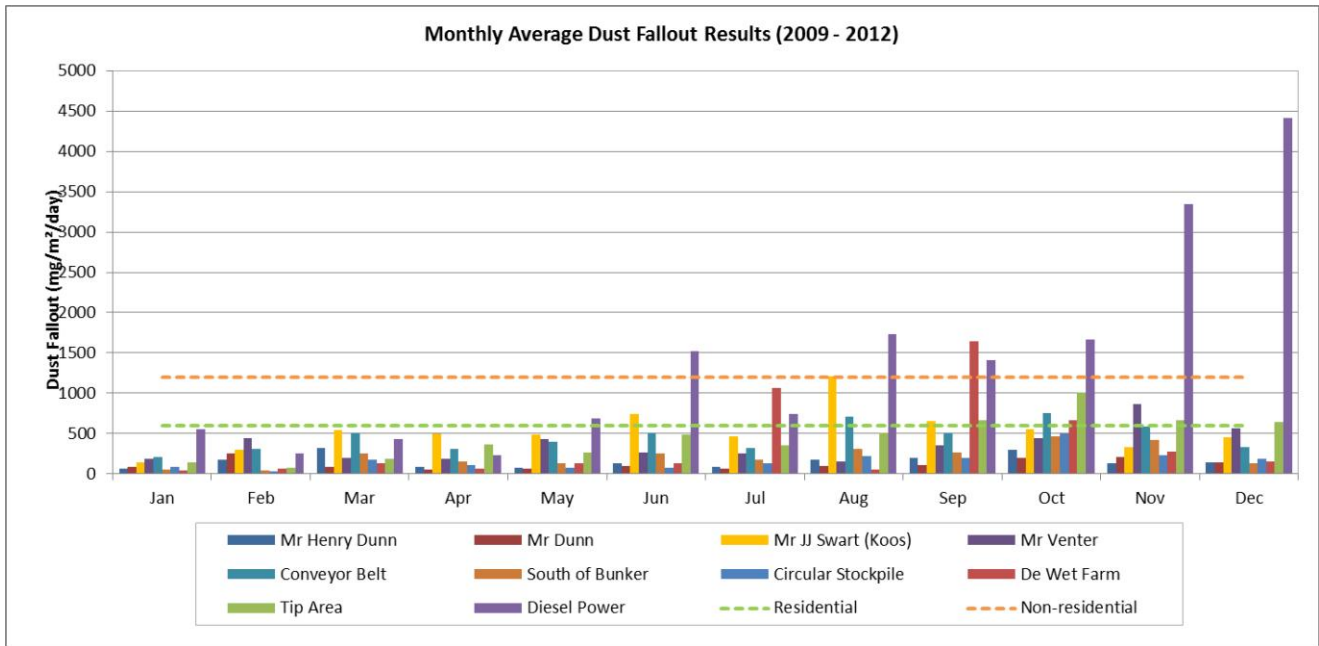


Figure 7-7: Monthly average dust fallout results for the period 2009 to 2012

7.3 Noise

Existing noise sources in the area surrounding the proposed open cast Isibonelo Block Z section include the mining operations at Isibonelo Colliery, nearby N17 national road and natural sources such as the river, insects and wind. Depending on the activities and amount of traffic along the main road, high levels of noise may already be experienced in the area of the proposed due to equipment used in the mine. As such, the area surrounding the proposed mining section can be classified as category F (Industrial District) as per the typical rating levels for noise in districts as specified in the SANS 10103:2008 regulations (**Table 2-4**). It must be noted that onsite monitoring, to establish the baseline noise climate of the region, is essential in order to assess the noise impacts of the proposed open cast going forward.

7.4 Visual Aspects

7.4.1 Site Description

The proposed Block Z project area lies between current Isibonelo Colliery and Kriel Colliery operations (to the west of current Isibonelo Colliery and to the east of current Kriel Colliery operations). North of the proposed site lies the town of Kriel with Sasols Secunda complex to the south. The proposed area comprises rolling hills with the Dwars-in-die-wegspruit River to the west of the site. No potential visual receptors were identified to be located near the proposed site. Taking into consideration that the proposed site lies between two currently operational mines, it is not anticipated that a significant impact on the visual aspect of the area will occur as a result of the proposed project.

7.5 Geology

7.5.1 Regional Description

The region falls within the Karoo Supergroup. The geology of the greater project area comprises mainly sedimentary lithologies belonging to the Karoo Supergroup. Sandstone and sand / siltstone intervals of the Vryheid Formation rest uncomfortably on a pre-Karoo basement, which consist mostly of granite, with gabbro. Dolerite sills and dykes occur sporadically over the region (Muller *et al.* 2001). **Figure 7-8** represents the geology of the Mpumalanga province.

7.5.2 Site Description

The geology underlying the proposed Block Z project site comprises shales and sandstones of the Madzaringwe Formation. The general lithological profile on the Isibonelo Colliery up to and including the deepest mineable coal seam, consists of:

- i. Soft overburden.
- ii. Hard overburden.
- iii. No.5 coal seam.
- iv. Inter burden.
- v. No.4 coal seam.

The lithology below the No.4 coal seam comprises primarily sandstone and non-economical thin coal seams (The No.3 coal seam and the No.2 coal seam).

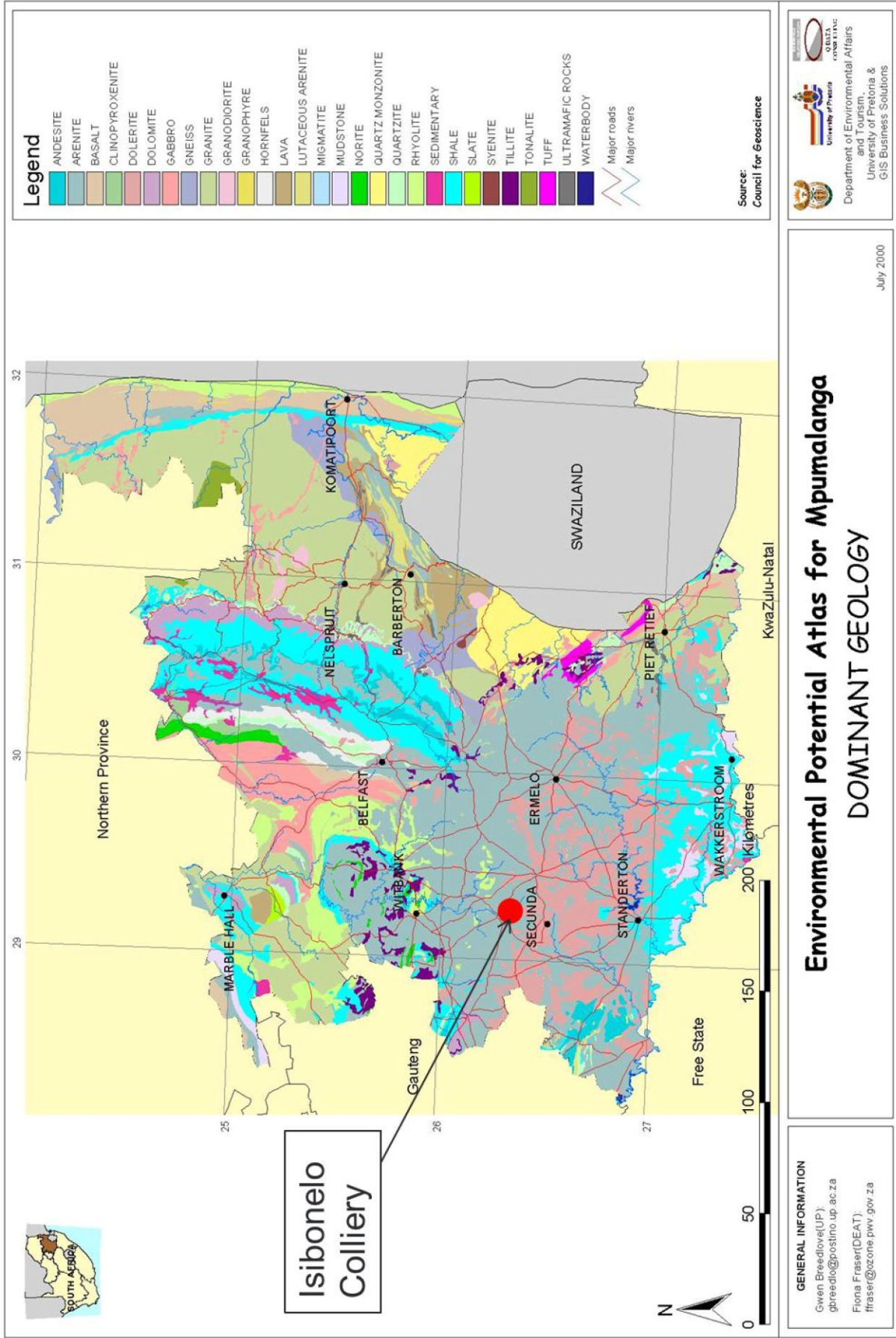


Figure 7-8: The dominant geology of the Mpumalanga Province (Department of Environmental Affairs and Tourism (DEAT), 2000)

7.6 Ground Water

7.6.1 Regional Description

Rocks of the Karoo Supergroup generally generate economic aquifers, although high yielding aquifers may occasionally occur. These rocks can be divided into two distinct aquifers; a shallow intergranular upper weathered aquifer within the weathering zone, fractured rock aquifers; and deep-seated aquifers occurring below the coal seams. Aquifers may also be identified in areas associated with weathering adjacent to dolerite intrusions (sills and dykes), as well as unconfined aquifers in the alluvium adjacent to major rivers. It has been noted that the aquifers may be hydraulically connected due to excessive intrusions in the region.

The shallow weathered aquifer occurs between 5–12 m, and up to 20 m, below the surface and is generally low yielding (1 – 10 m³ / day). The fractured rock aquifer developed variable yields and occurrence, with yields varying from 0.1–2 l / s. The deep-seated aquifer has been noted to have low hydraulic conductivity of approximately <0.001 m / day, although a higher hydraulic conductivity of 0.1 m / day could be expected along shallow coal seams (Dr. Pixley ka Isaka Seme EMF, 2012).

7.6.2 Local Description

A baseline groundwater investigation was conducted as part of the EMPR in 2001. Groundwater levels and quality are monitored on a quarterly / biannual basis by the Institute for Ground Water Studies. This information is summarised in the Isibonelo Colliery IWWMP (Radyn *et al*, 2010) from which this baseline has been developed.

7.6.2.1 Groundwater Baseline

Groundwater occurs in three aquifers at Isibonelo Colliery (**Table 7-4**)

Table 7-4: Summary of Aquifers at Isibonelo Colliery (Radyn *et al*, 2010)

Aquifer	Geology	Depth below ground	Characteristics
Shallow perched aquifer	<ul style="list-style-type: none"> Restricted to the soil (soft overburden) horizon Includes alluvial deposits along streams 	1-5m	<ul style="list-style-type: none"> Water is held in the spaces between soil / sediment particles May support surface ecosystems at springs, pans, wetlands and along watercourses Contributes to flow in watercourses Unconfined (groundwater table at atmospheric pressure)
Shallow Karoo aquifers	Weathered zone Karoo sediments and coal seams	5 – 30m	<ul style="list-style-type: none"> Groundwater held in fractures, joints and weathered voids in the bedrock. Contributes to base flow in watercourses unconfined to semi-unconfined
Deep Karoo aquifers	Unweathered Karoo sediments and coal seams	30m – 180m	<ul style="list-style-type: none"> Groundwater held in fracture systems in fresh bedrock. Confined (water under pressure)

Dolerite intrusions (semi-vertical dykes and semi-horizontal sills) intersect the Karoo sediments in places and affect the shallow and deep Karoo aquifers. The margins of dolerite intrusions are often preferentially weathered and fractured which may result in preferential groundwater flowpaths and increased borehole yields. Dykes may act as barriers to groundwater flow and cause differences in groundwater level from one side of a dyke to another. Sills may act as perched aquifers, holding groundwater above them while limiting vertical flow.

Groundwater flow in all three aquifer types is essentially horizontal. However, interconnection between the aquifer types allows limited vertical flow.

Recharge of these aquifers is generally from rainfall at surface. This infiltrates to lower levels and deeper aquifers in the geological sequence through fracture systems, dyke margins, joints, etc. Recharge is estimated as 1% to 3% of mean annual rainfall.

Groundwater flow directions in areas not impacted by mining will be along the surface topographical gradient, that is, from high ground towards the drainage lines and rivers. The depth to groundwater in boreholes in the vicinity of Isibonelo varies between 0.10m and 21.1 m, with an average of ± 5 m. Groundwater is used for domestic and stock watering purposes. The approximate range of boreholes yields is from 0.5 L / s to 1.5 L / s.

The baseline groundwater quality at Isibonelo Colliery prior to mining is summarised in **Table 7-5**.

Table 7-5: Baseline Groundwater Quality at Isibonelo Colliery (Radyn et al, 2010)

Variable	Unit	Minimum	Maximum
pH	-	7.38	8.9
EC	(mS / m)	18.5	86
TDS	(mg / l)	144	512
Ca	(mg / l)	13	70
Mg	(mg / l)	4	41
Na	(mg / l)	14	178
K	(mg / l)	1.1	10.9
Si	(mg / l)	7.1	28
Cl	(mg / l)	4	96
T.Alk	(mg / l)	90	445
SO4	(mg / l)	4	20
NO3	(mg / l)	0.2	3.0
F	(mg / l)	0.19	1.8
Fe	(mg / l)	0.01	28
Mn	(mg / l)	0.01	0.7

7.7 Surface Water

7.7.1 Regional Description

The proposed Block Z study area falls within quaternary catchment B11D, which comprises the Trichardspruit, Vaalbankspruit and Steenkoolspruit catchments (**Figure 7-9**). The various catchments are located within the Olifants Water Management Area. Quaternary catchment B11D is 551km² in extent, and its constituent rivers form a tributary of the Olifants River in the upper catchment area. The Olifants River flows through the Kruger National Park and joins the Limpopo River in Mozambique. The Olifants River catchment is 54,570 km² in extent, and is largely situated in the coalfields of the Highveld in Mpumalanga. The catchment is, therefore, heavily impacted by coal mining, power generation, heavy industry, sewage and large-scale commercial agriculture. The Olifants River and its tributaries exhibit high heavy metal concentrations due to acid mine drainage, and high *E. coli*, total nitrate and phosphate concentrations from inflows of sewage. Pollution in the catchment has recently resulted in the mortality of fish, Crocodiles and other wildlife between Loskop Dam and the Kruger National Park. Much of the pollution originates from the upper catchment area in which Klipfontein is situated. It is critical that any form of pollution from the study area during the lifespan of the project is controlled to prevent further contamination, loss of biodiversity and ecosystem functioning in the Olifants River catchment.

7.7.2 Site Description

The following rivers surround the proposed Block Z project area and ultimately the Isibonelo Colliery mine lease area (**Figure 7-9**):

- The Steenkoolspruit which is located approximately 2.5km north-east of the proposed Block Z project area (at its nearest point). The Steenkoolspruit flows in a general northerly direction, flowing into the Olifants River 29km north of the site in the vicinity of Tweefontein / Phoenix. The Olifants River flows into Witbank dam, which in turn flows into the Loskop dam. Thereafter the river flows through Mpumalanga and the central part of the Kruger National Park to Mozambique.
- The Dwars-in-die-wegspruit which is located adjacent to the proposed Block Z project area (approximately 500m west).

The in-stream water quality of the Steenkoolspruit is reflected in **Table 7-6**.

Table 7-6: 2011 Field water quality measurements - selected Steenkoolspruit sites

Site	Temp (°C)	Secchi Depth (cm)	Conductivity (mS / m)	pH
April 2011				
RPL4	-	-	55	6.6
Harry's Canal	-	-	72	7.0
June 2011				
MON A	11	86	90	-
MON B	11	>100	85	-
RPL4	-	-	60	6.4
Dirty Water Dam	-	-	115	8.2
September 2011				
RPL4	-	-	344	6.7
Dirty Water Dam	-	-	179	7.9
Wetlands-BH	-	-	54	7.2
December 2011				
MON A	23	32	73	-
MON B	24	95	86	-
RPL4	-	-	80	7.3
Dirty Water Dam	-	-	205	8.5

According to the DWA Resource Quality Services data and Maletse (2012), there are no water quality monitoring points located on the Dwars-in-die-Wegspruit in the vicinity of the proposed Block Z project.

A Pollution Control Dam (PCD) is located approximately 1m to the south-west of the proposed Block Z project area however the dam is used for "dirty" runoff water from the south pit and therefore not a natural body of water.

7.7.3 Wetlands

A study entitled An Ecological Assessment of Riparian Zone and Wetland Habitats of the Kriel South Area (Marneweck, 2001) and evaluated wetlands in and surrounding the proposed Block Z project area. The Kriel South study area included part of the catchment area of the upper Olifants River, including portions of the three

major watercourses in the catchment, namely the Steenkoolspruit, the Debeerspruit and the Dwars-in-die-wegspruit (which runs adjacent to the proposed Block Z project area).

The study identified seven types of wetlands located within the study area, comprising:

- Channelled and non-channelled valley bottom riparian wetlands.
- Channelled valley bottom floodplains.
- Valleyhead.
- Midslope seepage wetlands.
- Foothill seepage wetlands.
- One endorheic pan.

The study noted that the Steenkoolspruit, Debeerspruit and the Dwars-in-die-wegspruit periodically flood their banks and this has resulted in the development of a floodplain along the entire length of each of these rivers in the Kriel South area.

Marneweck (2001) noted that the Dwars-in-die-wegspruit floodplain lacked the channelled valley bottom seepage areas and open water areas associated with these areas as well as the habitats associated with the foothill seepage areas. The study noted that the area comprised mostly extensive grass meadows dominated by *Eragrostis plana*. The deeply incised channel also meant that the banks were unstable and the riparian zone habitats were disturbed and thus poorly developed. There was also no clear transition from the grass meadow habitat of the valley bottom to the grass meadow of the levee and as such the levee habitat was largely indistinguishable. The study continued to state that the incised river channel had probably contributed to the reduced frequency of flooding in the floodplain and the lowering of the watertable along the valley bottom. The grass meadows are therefore probably only inundated intermittently following larger floods that historically would have been required to inundate the floodplain.

The Consolidated EMPR for Isibonelo Colliery (2012) indicates that both riparian and non-riparian wetlands are expected within the catchments within which Isibonelo Colliery is located and that various wetlands are present in the vicinity of the Isibonelo Colliery mine lease area. The Consolidated EMPR for Isibonelo Colliery (2012) indicated that the state of the riparian wetlands at the time were slightly modified as compared with reference surrounding conditions. Most of the floodplain areas, while modified by roads and agriculture in places, were in reasonably good condition; while the non-riparian systems were heavily impacted by either agriculture or mining.

7.7.4 Current Isibonelo Colliery Surface Water Management

Isibonelo Colliery has a SWDC, located to the west south west of the opencast operations; which serves to prevent clean water from the natural environment entering the south mining pit. The clean water is subsequently discharged into the DeBeerspruit which flows to the northeast of the mining area.

The dirty water contained within the mining pit is collected in a sump (within the various pits) and pumped from the pits into the PCD (Vaskop dam). Isibonelo Colliery holds a water use license (No. 24084884) authorising the following water uses:

- Section 21 (b): Storing of water;
- Section 21 (c): Impeding or diverting the flow in a watercourse;
- Section 21 (i): Altering the bed, banks, course or characteristic of a watercourse;
- Section 21 (g) Disposing of waste in a manner which may detrimentally impact on a water resource; and
- Section 21 (j): Removing of water found underground.

Furthermore, Isibonelo Colliery hold a water use license (No. 2484884) for the discharge of water containing waste (of a specified quality concentration) into the Steenkoolspruit in terms of Section 21 (f) of the NWA.

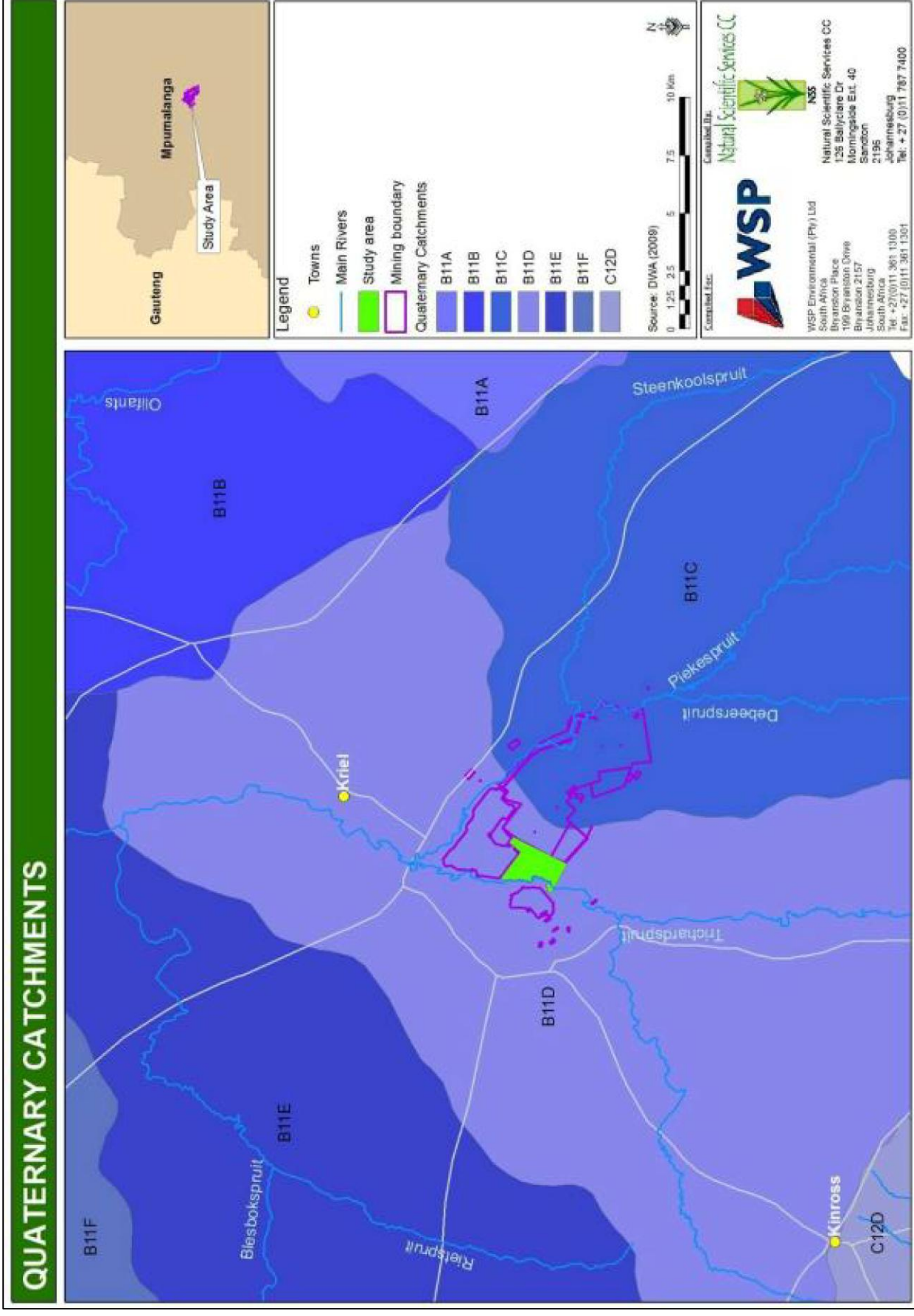


Figure 7-9: Quaternary catchments and major drainage lines in the study region (NSS, 2014)



7.8 Topography

7.8.1 Regional Description

According to the Mpumalanga Department of Agriculture and Land Administration, the Mpumalanga Province ranges from 0m to approximately 2200m (Resource Information Report: Mpumalanga, 2005). **Table 7-7** represents the elevation, hectares of land which occur within the specific elevation, and the percentage of land that comprises the specific elevation. The region is generally fairly flat with no areas with a slope of more than 9%.

Table 7-7: Topography of Mpumalanga (Resource Information Report: Mpumalanga, 2005)

Range (m)	Area (ha)	% of Area
0 – 500	147 227 935	18.6
501 – 100	64 018 237	8.1
1001 – 1500	154 372 203	19.4
1501 – 2000	426 274 303	53.6
2001 – 2200	2 381 422	0.3

Figure 7-10 represents the topography across the Olifants and Letaba River Catchment Areas. The proposed Block Z project site is situated to the south of the catchment i.e. within the region indicated as having an average slope ration of 0-5%.

7.8.2 Site Description

The elevation of the target area ranges from 1552 masl to 1582 masl. The project area slopes from east to the west towards a watercourse; with the adjacent watercourse being the lowest point at 1548 masl. The area to the east of the proposed Block Z project area is highly impacted upon by opencast mining activities.

Figure 7-11 illustrates the cross profile of the target area as indicated from northeast to southwest. The northeast to southwest profile has an average slope of between 1.6% and 2.7%.

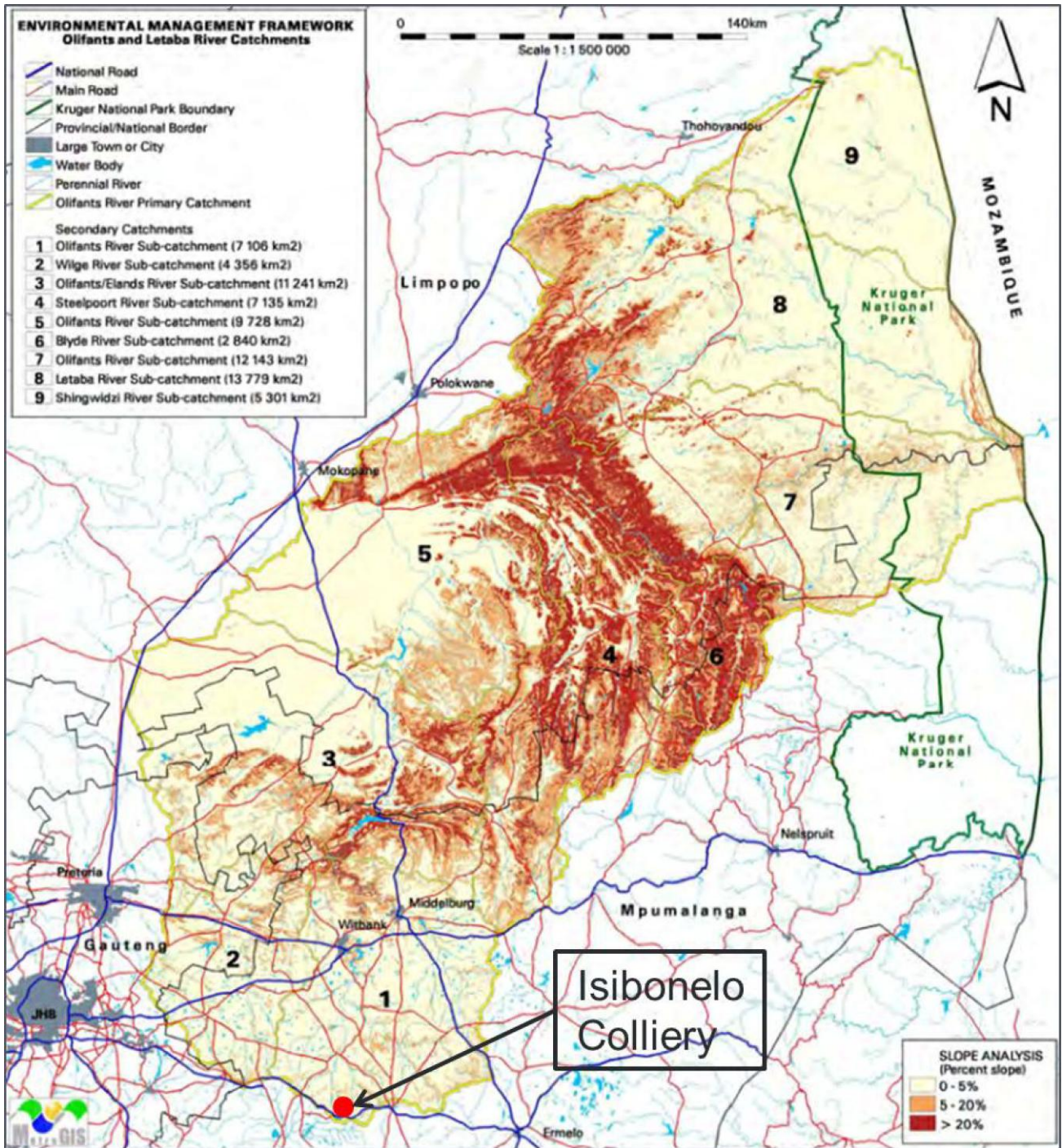


Figure 7-10: Slope analysis across the Olifants and Letaba River Catchment Areas (Olifants and Letaba Rivers Catchment Areas (Environomics and MetroGIS, 2009)

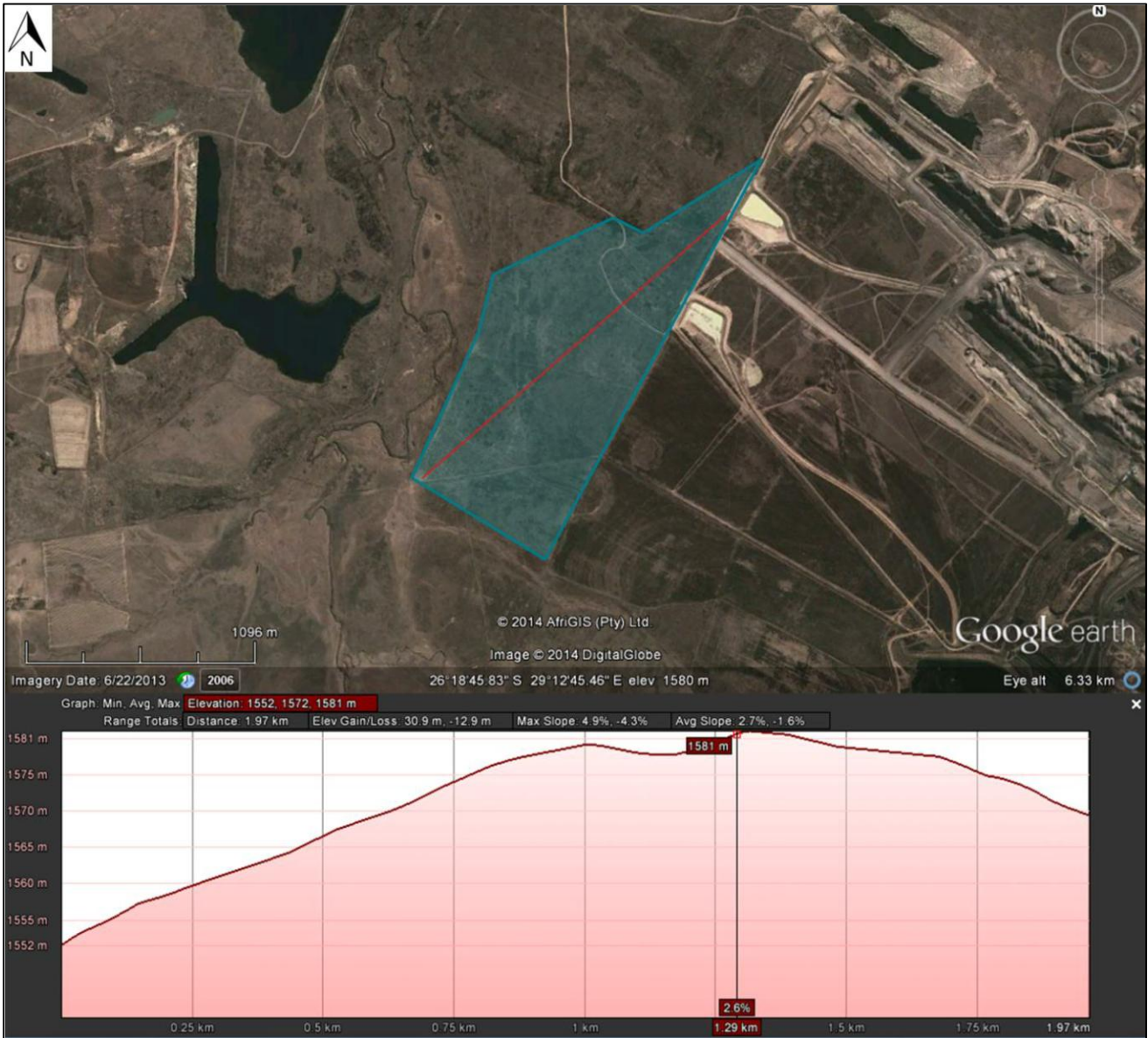


Figure 7-11: Gradient Profile of Proposed Block Z area (Google Earth, 2013)

7.9 Soil and Land Capability

7.9.1 Regional Description

The soils that occur in the Olifants and Letaba River Catchment Areas (Isibonelo Colliery falls on the southern boundary of the catchment) are also closely related to the geology and landforms of the area. There is a wide variety of soil types distributed throughout the Olifants and Letaba River Catchment Areas. A summary of the different soil types found in the catchment areas is listed in **Table 7-8**. **Figure 7-12** represents the locations of the various soil types (the red circle indicates the proposed Block Z project area).

Table 7-8: Olifants and Letaba River Catchment Areas Soils (Environomics and MetroGIS, 2009)

Soil Description	Area (km ²)	Percentage (%)
Glenrosa and / or Mispah forms (other soils may occur) - lime generally present in the entire landscape.	697.01	0.95
Glenrosa and / or Mispah forms (other soils may occur) - lime rare or absent in the entire landscape.	7 601.97	10.33
Glenrosa and / or Mispah forms (other soils may occur) - lime rare or absent in upland soils but generally present in low-lying soils.	11 831.19	16.07
Grey regic sands and other soils.	126.36	0.17
Miscellaneous land classes- rocky areas with miscellaneous soils.	8 766.57	11.91
Miscellaneous land classes- undifferentiated deep deposits.	1 158.20	1.57
Miscellaneous land classes- very rocky with little or no soils.	498.33	0.68
One or more of: vertic- melanic- red structured diagnostic horizons- undifferentiated.	6 768.32	9.19
Plinthic catena: dystrophic and / or mesotrophic; red soils not widespread- upland duplex and marginalitic soils rare.	6 160.34	8.37
Plinthic catena: Dystrophic and / or mesotrophic; red soils widespread- upland duplex and marginalitic soils rare.	6 974.62	9.47
Plinthic catena: eutrophic; red soils not widespread - upland duplex and marginalitic soils rare.	2 484.12	3.37
Plinthic catena: eutrophic; red soils widespread- upland duplex and marginalitic soils rare.	1 159.25	1.57
Plinthic catena: undifferentiated- upland duplex and / or marginalitic soils common.	541.70	0.74
Prismacutanic and / or pedocutanic diagnostic horizons dominant- B horizons mainly not red 5.	514.00	0.70
Prismacutanic and / or pedocutanic diagnostic horizons dominant. In addition- one or more of: vertic- melanic- red structured diagnostic horizons.	608.33	0.83
Red-yellow apedal- freely drained soils- red- high base status- < 300 mm deep.	335.64	0.46
Red-yellow apedal- freely drained soils; red and yellow- dystrophic and / or mesotrophic.	1 846.66	2.51
Red-yellow apedal- freely drained soils; red and yellow- high base status- usually < 15% Clay.	1 378.58	1.87
Red-yellow apedal- freely drained soils; red- dystrophic and / or mesotrophic.	2 621.67	3.56
Red-yellow apedal- freely drained soils; red- high base status- > 300 mm deep (no dunes).	11 479.37	15.59
Red-yellow apedal- freely drained soils; yellow- dystrophic and / or mesotrophic.	37.37	0.05
No Data / Surface Water.	33.39	0.05

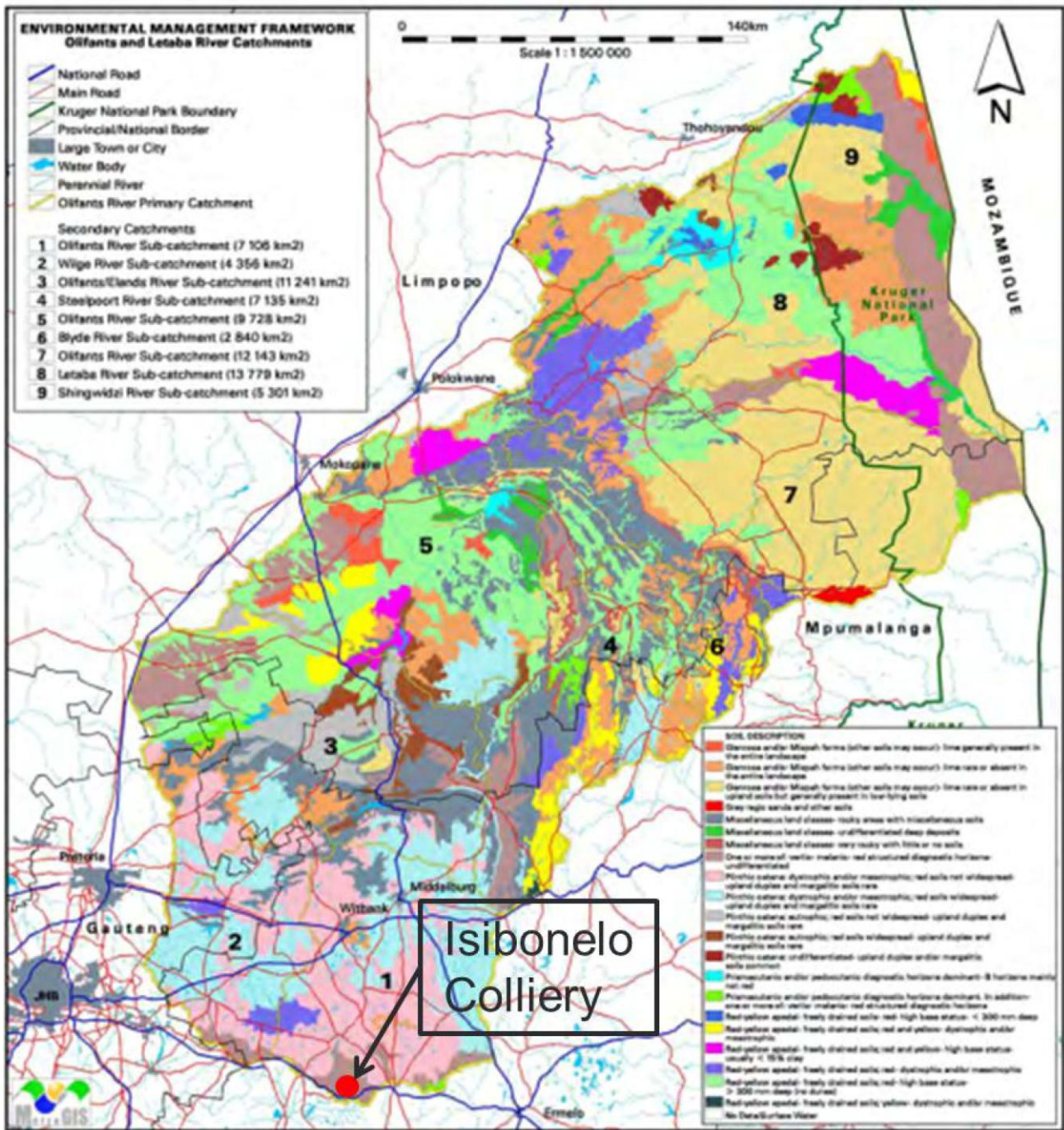


Figure 7-12: Soils represented across the Olifants and Letaba River Catchment Areas (Environomics and MetroGIS, 2009)

7.9.2 Site Description

Geological, climate and topographical parameters are responsible for the formation of the two broad soil patterns occurring in the Isibonelo Colliery mine lease area. Red to yellow and greyish, more sandy soils are found towards the north-eastern section of the Isibonelo Colliery mine lease area. In the south-western section, black and red strongly structured, vertic soils are present.

The following soil types occur at the proposed Block Z project site (in terms of the South African Binomial Soil Classification) (Earth Science Solutions, 2008):

Avalon / Bainsvlei

Avalon and Bainsvlei soil forms fall into the “hydromorphic” category of soils as classified. These soils are generally found associated with, and down slope of the dry, sandy loams and sandy clay loams (Clovelly and Griffin Form soils), within the transition zone of the moist grasslands. Chemically, these soils (characteristics are similar within these forms) are moderately well leached returning significantly lower amounts of Ca and Mg as well as Na, K and P. By definition, these soils vary in the degrees of wetness at the base of their profile. I.e. the soils are influenced by a rising and falling water table, hence the mottling within the lower portion of the profile. Depths of utilizable agricultural soil (to top of mottled horizon) vary from 400mm to 600mm.

Clovelly / Griffin

Soils of the Clovelly and Griffin Form have very similar characteristics, and are generally derived from the same parent materials. These soils generally returned pale red brown to yellow red colours in the topsoils, and fine to medium grained sandy, and silty clay loams, with dark orange reds and dark red colours in the sub soil horizons. The high iron content of the parent rocks from which these soils are derived, impart the strong red colours noted. The physical characteristics of these soils mapped vary, from those with a fine to medium grained sandy and / or silty loam, with pale gray brown to yellow brown colours and a single grained orthic topsoil (“A” horizon), on a yellow to yellow / red dystrophic “B”, to those with a more clay rich sandy clay loam, displaying much redder and less leached colours. These soils exhibit a predominantly dystrophic leaching status and luvic characteristics.

From previous studies undertaken in close proximity to the proposed Block Z project site the following conditions are pertinent (Radyn et al, 2010):

- The soil materials vary in both physical and chemical composition, based predominantly on the parent materials from which the soils have developed / are derived, while the effects of the geomorphology (climate, slope, attitude and the overall topography) have an influence on the pedogenesis and resultant soil forms present;
- The local geology comprises horizontal to sub-horizontally bedded sediments of the Karoo formations and Ecca group in particular (sandstones, siltstones and mudstones), with significant younger intrusives comprising dolerite and in places diabase dykes and sills;
- This geomorphology combined with the semi-arid climate and undulating topography results in soils with a number of similar / common attributes that are tempered and altered by the changes in the lithological units that occur at or close to surface; and
- The soil chemistry, topographic slope and the degree or lack of adequate vegetative cover influences the erosion index and degree of impact on the natural conditions.

A factor important to these areas and a factor that is moderately typical of semi-arid environments are the evaporites that characteristically occur as layers within the wet based soil profiles. These features are important to the ecological sustainability of the area, and need to be considered in terms of both the risk as well as the sensitivity analysis if development is to be considered on any of the sites proposed.

Avalon, Bainsvlei, Griffin and Clovelly soils each have their own erodibility indices which are indicated in **Table 7-9**. According to **Table 7-9**, the erosional index of the Clovelly and Griffin soil types is considered Low to Moderate whereas the erosional index of the Bainsvlei and Avalon soil types is considered Moderate to High.

Table 7-9: Soil erosion indices (Radyn et al, 2010)

Soil Form	Erodibility Index
Hutton / Clovelly / Griffin	Low to Moderate
Pinedene / Bloemdale	Moderate
Glencoe / Dresden	Moderate
Sepane	Moderate to High

Soil Form	Erodibility Index
Bainsvlei / Avalon	Moderate to High
Westleigh / Longlands	High
Glenrosa / Mispah / Mayo	Moderate
Valsrivier	High
Swartland / Sterkspruit	Moderate
Kroonstad	High
Rensburg / Bonheim	High

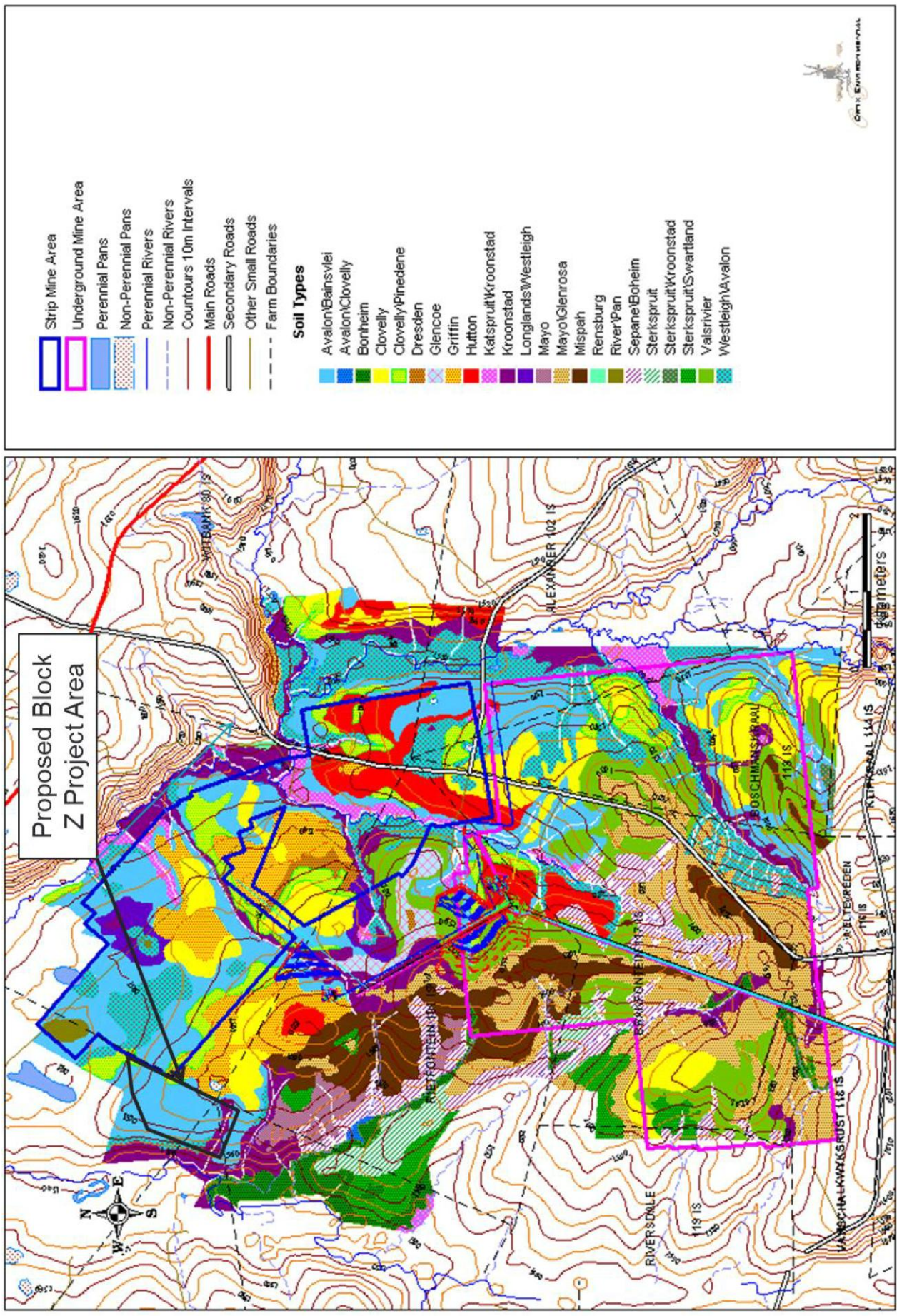


Figure 7-13: Soil Type in and around the Isibonelo Colliery Mine Lease Area (Oryx Environmental, 2001)

7.10 Land Use

7.10.1 Regional Description

The most common forms of land use in the region surrounding the study area include:

- Crop (mainly maize and soya) cultivation.
- Livestock (mainly cattle) grazing.
- Coal mining and power generation.
- Human settlement.

7.10.2 Site Description

The proposed Block Z project is situated primarily in land type Bb4. The western side of the proposed Block Z project is situated in land type Ea20. Both these land types feature slightly to moderately undulating landscapes. The Bb4 land type includes some low hills and small to large pan depressions, while the Ea20 land type is interspersed with scattered small wetlands, narrow stream alluvia, pans and occasional ridges or rocky outcrops (Mucina & Rutherford 2006).

The proposed Block Z project area falls within the following areas:

- Land which has the potential for cattle grazing;
- An existing mining right area of Isibonelo Colliery (however approved mining right associated with underground mining); and
- Directly adjacent to existing open cast operations at Isibonelo Colliery and will therefore not significantly alter the land use or sense of place in the area.

7.11 Flora

7.11.1 Regional Description

There are 52 vegetation types occurring within the Olifants and Letaba river catchment areas. Of these, 29 occur in the Savanna Biome, 13 in the Grassland Biome and 5 in the Forest Biome (**Figure 7-14**). There are also 4 wetland vegetation types that are considered to be azonal or not limited to a single biome. **Figure 7-15** indicates the layout of the various threatened ecosystems across the Olifants and Letaba river catchment areas.

7.11.2 Site Description

The proposed Block Z project site is situated within the Grassland Biome (indicated as Mosaic Grassland Biome in as classified by Rutherford & Westfall (1994). The majority of plant species within grasslands are non-grassy herbs (forbs), most of which are perennial plants with large underground storage structures. Frost, fire and grazing maintain the herbaceous grass and forb layer, and ultimately prevent the establishment of tall woody plants (Tainton 1999).

The Grassland Biome has extremely high biodiversity, second only to the Fynbos Biome. At the 1000m scale, the average species richness of the Grassland Biome is even higher than that of Fynbos, being surpassed only by Renosterveld (Cowling et al. 1997; Van Wyk 2002). Furthermore, the majority of rare and threatened plant species in the summer rainfall region of South Africa are restricted to high-rainfall grassland, making this the vegetation type in most urgent need of conservation (60% destroyed and only 2.2% conserved). It should be noted that the proposed Block Z area does not lie within or adjacent to any protected areas.

The proposed Block Z project site is situated primarily within Gm 12 Eastern Highveld Grassland vegetation type. The western side of proposed Block Z project site is situated in Gm 8 Soweto Highveld Grassland (**Figure 7-17**). The dominant floral species in these vegetation types are listed in **Table 7-10**.

7.11.2.1 Eastern Highveld Grassland

Eastern Highveld Grassland represents a short, dense form of grassland. It is dominated by the usual composition of Highveld grassland floral taxa (i.e. *Aristida*, *Digitaria*, *Eragrostis*, *Themeda*, *Tristachya* etc.), but is interspersed with small, scattered rocky outcrops with wiry, sour grasses and some woody species (*Acacia caffra*, *Celtis africana*, *Diospyros lycioides subsp. lycioides*, *Parinari capensis*, *Protea caffra*, *Protea welwitschii*, and *Rhus magaliesmontanum*). Eastern Highveld Grassland is recognized as an Endangered South African vegetation type (Mucina & Rutherford 2006). At least 44% of this vegetation type has been transformed mainly by crop cultivation, but also afforestation, mining, urbanization and construction of dams. Although alien plant invasion is not an extensive problem in this grassland type, *Acacia mearnsii* can become dominant in disturbed places. Only a very small fraction of Eastern Highveld Grassland is conserved in the statutory Nooitgedacht Dam and Jericho Dam Nature Reserves, and in the Holkranse, Kransbank and Morgenstond private reserves. Considering this, it seems unlikely that the national target to protect 25% of this vegetation type will be met. **Figure 7-17** depicts the proposed Block Z project site in relation to the Eastern and Soweto Highveld Grasslands and **Figure 7-10** details the floral species that comprise these grassland types.

7.11.2.2 Soweto Highveld Grassland

Soweto Highveld Grassland represents a short to medium-high, dense, tufted grassland dominated almost entirely by *Themeda triandra*, and accompanied by a variety of other grasses such as *Elionurus muticus*, *Eragrostis racemosa*, *Heteropogon contortus* and *Tristachya leucothrix*. Soweto Highveld Grassland is also recognized as an Endangered South African vegetation type (Mucina & Rutherford 2006). Almost 50% of this vegetation type has been transformed mainly by crop cultivation, urban sprawl, mining, roads and dams.

Only a handful of patches of Soweto Highveld Grassland are conserved in the statutory Waldrift, Krugersdorp, Leeuwkuil, Suikerbosrand and Rolfe's Pan nature reserves, and in the Johanna Jacobs, Tweefontein, Gert Jacobs, Nikolaas and Avalon private reserves, and the Heidelberg Nature Heritage Site. It, therefore, seems unlikely that the national target to protect 24% of this vegetation type will be met

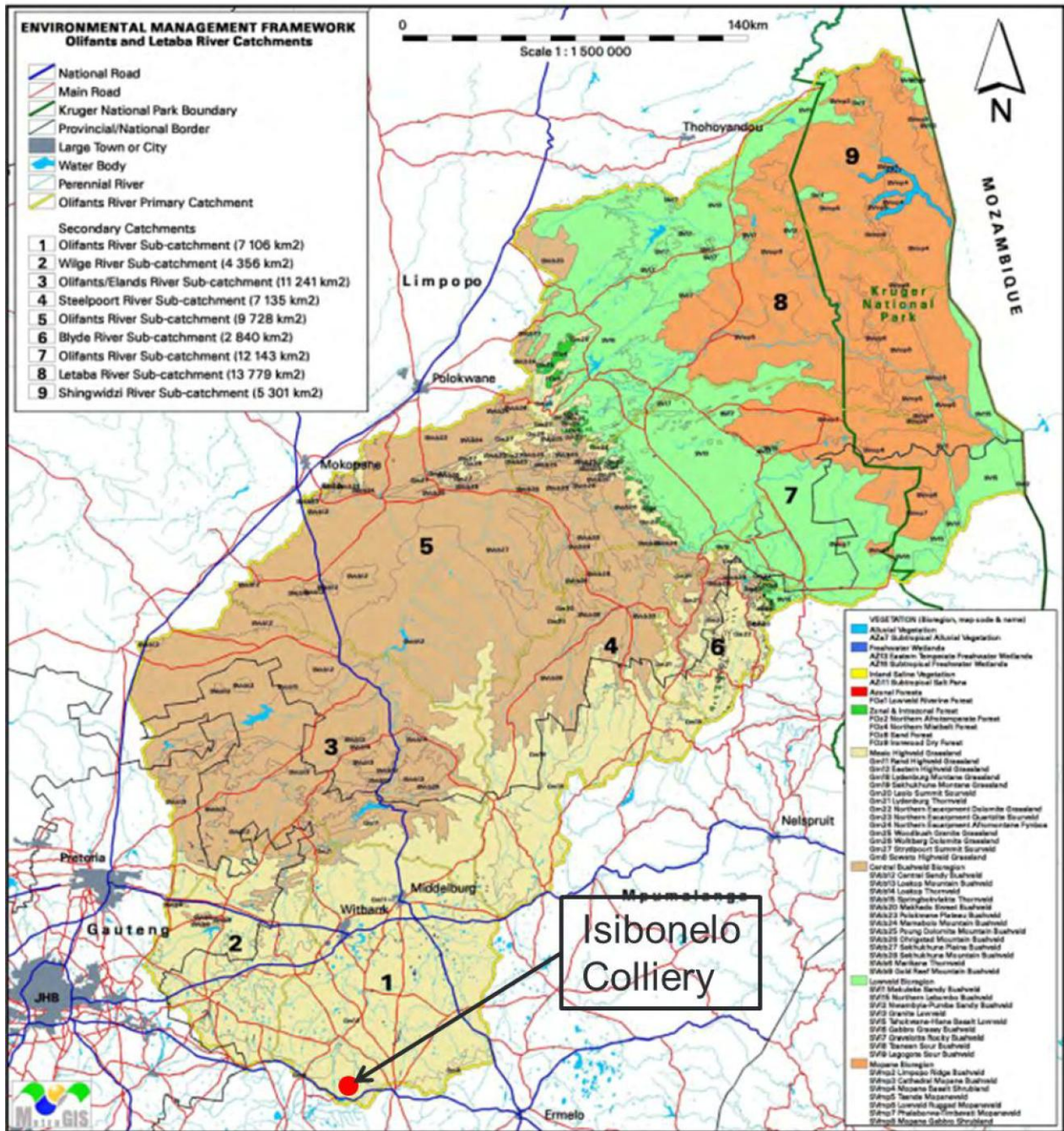


Figure 7-14: Vegetation cover across the Olifants and Letaba river catchment areas (Environomics and MetroGIS, 2009)

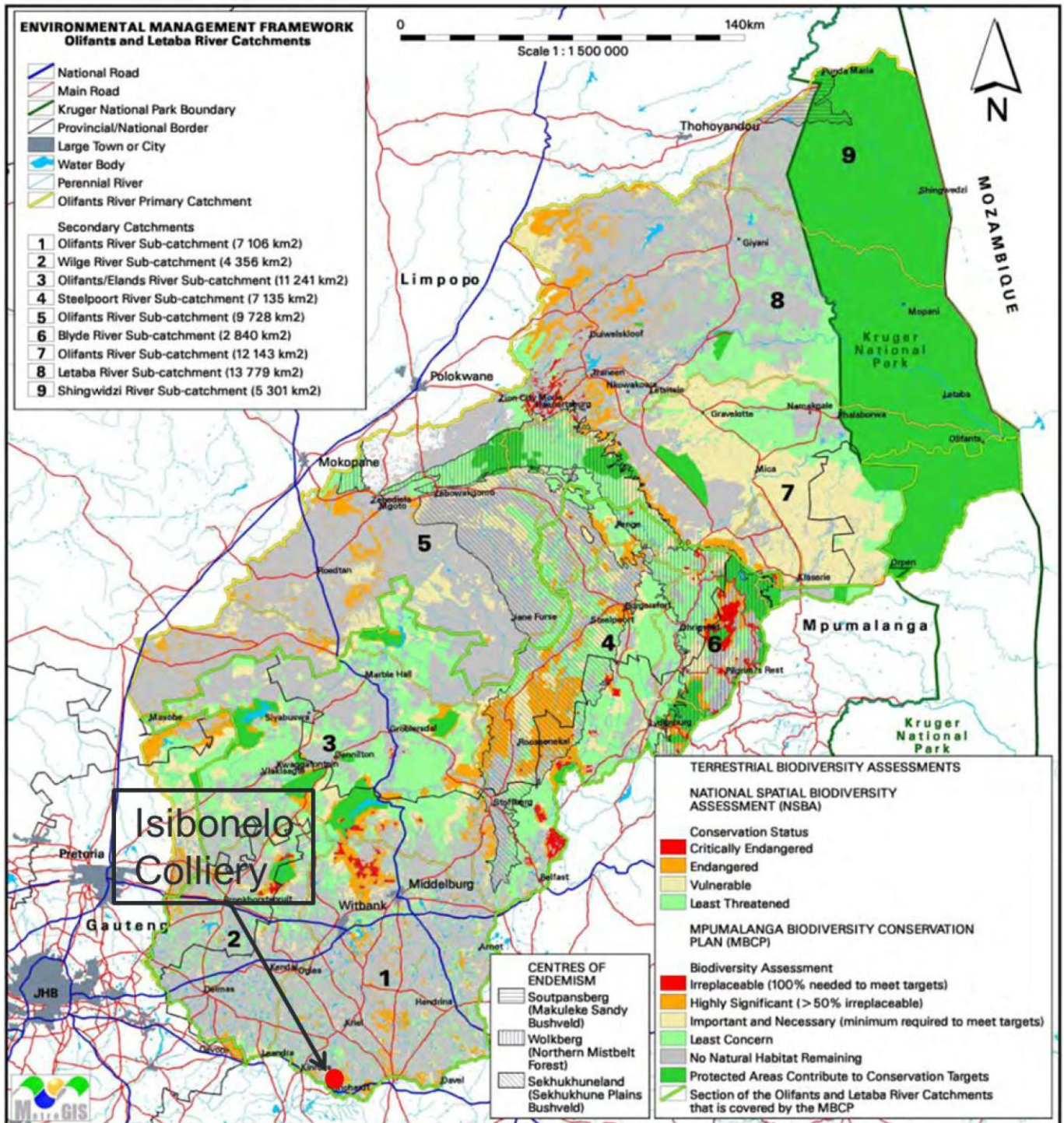


Figure 7-15: Threatened Ecosystems across the Olifants and Letaba river catchment areas (Environomics and MetroGIS, 2009)

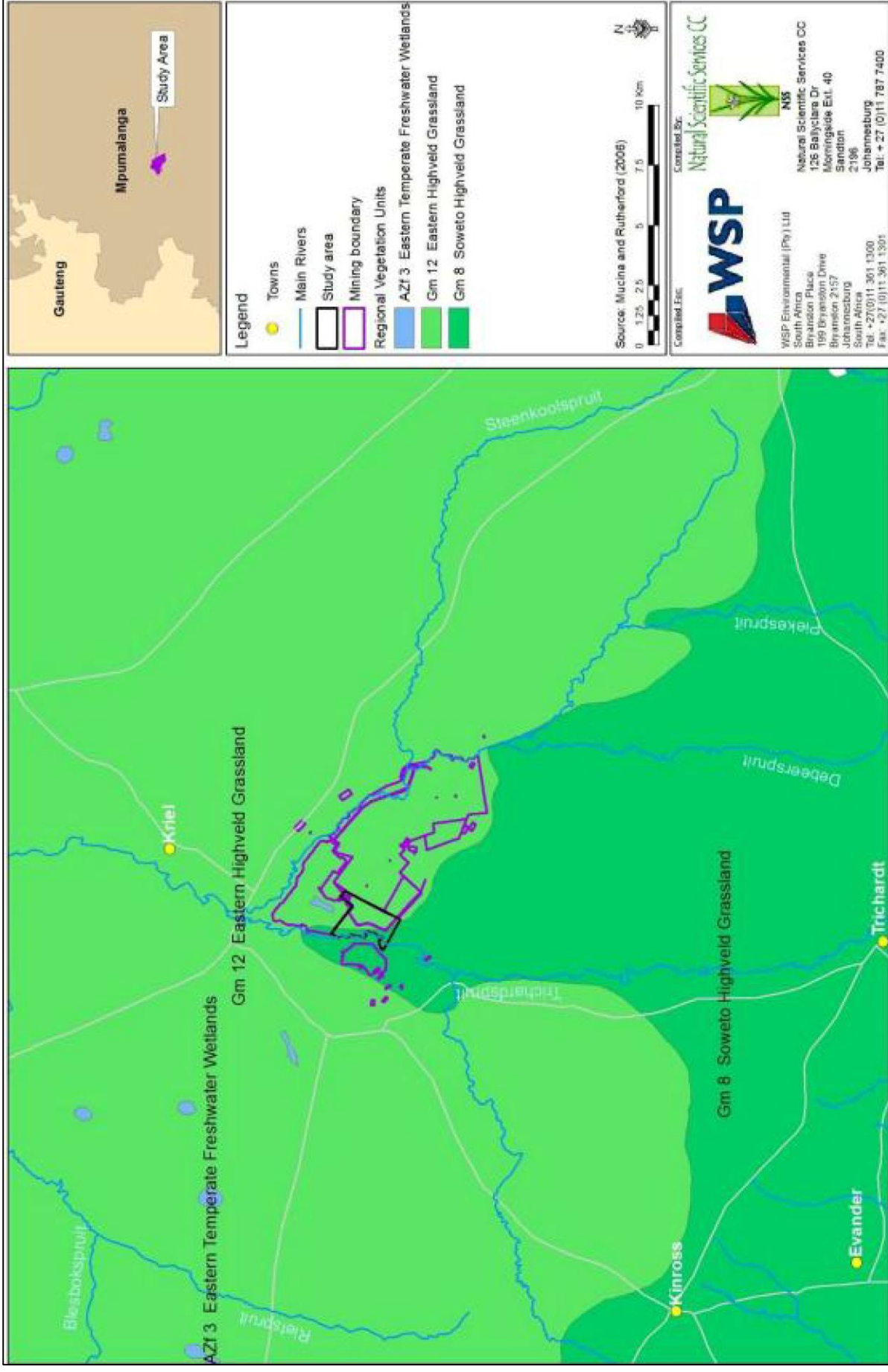


Figure 7-16: Vegetation types in the study region (NSS, 2014)

THREATENED TERRESTRIAL ECOSYSTEMS

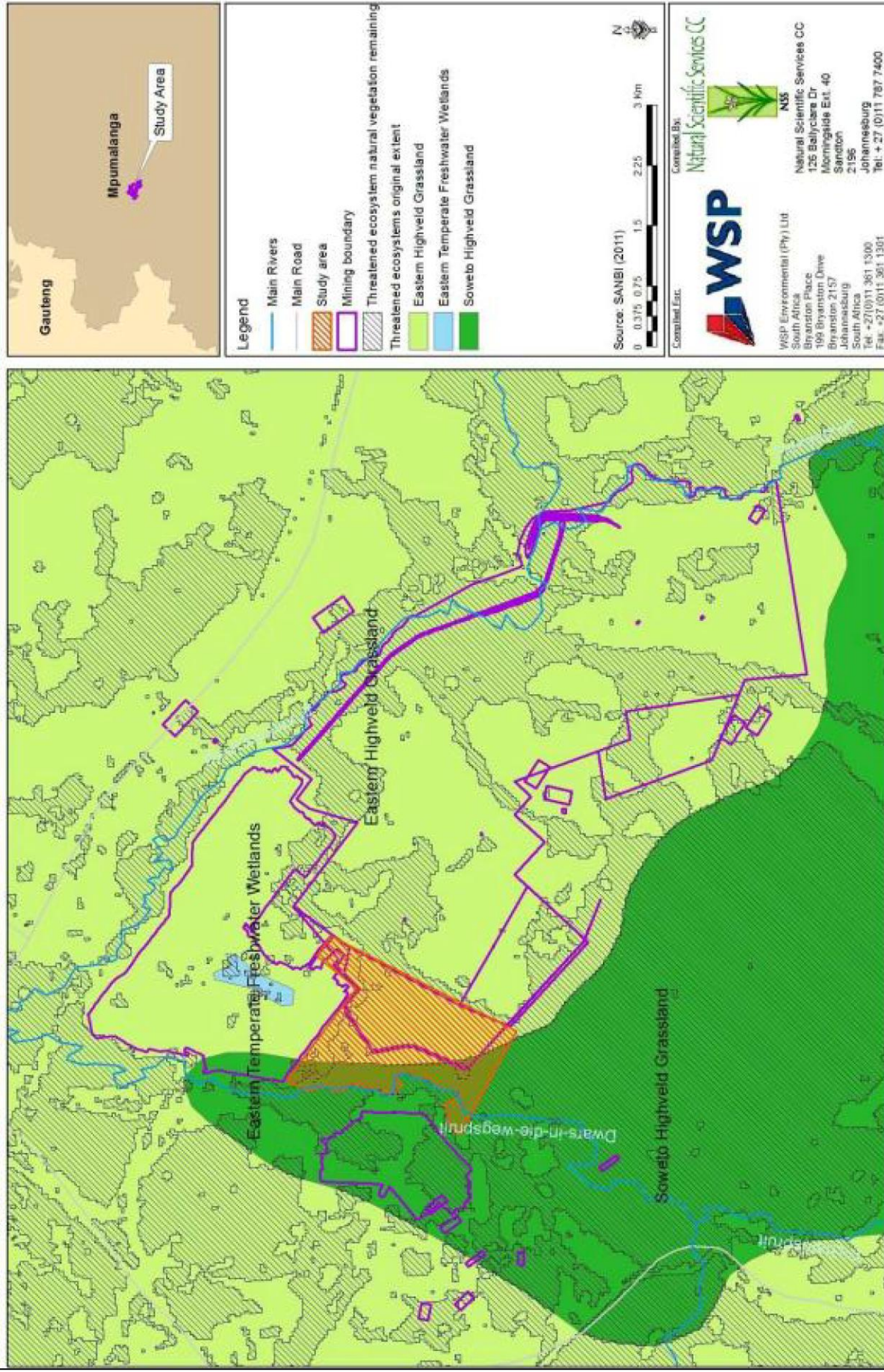


Figure 7-17: Remaining (hatched) patches of the Eastern and Soweto Highveld Grassland Threatened (NSS, 2014)



Table 7-10: Dominant Regional Floral Species in the proposed Block Z area (NSS, 2014)

Growth Form	Species
Eastern Highveld Grassland	
Low shrubs:	<i>Anthospermum rigidum</i> subsp. <i>pumilum</i> , <i>Seriphium plumosum</i> .
Graminoids:	<i>Aristida aequiglumis</i> , <i>Aristida congesta</i> , <i>Aristida junciformis</i> subsp. <i>galpinii</i> , <i>Brachiaria serrata</i> , <i>Cynodon dactylon</i> , <i>Digitaria monodactyla</i> , <i>Digitaria tricholaenoides</i> , <i>Elionurus muticus</i> , <i>Eragrostis chloromelas</i> , <i>Eragrostis curvula</i> , <i>Eragrostis plana</i> , <i>Eragrostis racemosa</i> , <i>Eragrostis sclerantha</i> , <i>Heteropogon contortus</i> , <i>Loudetia simplex</i> , <i>Microchloa caffra</i> , <i>Monocymbium ceresiiforme</i> , <i>Setaria sphacelata</i> , <i>Sporobolus africanus</i> , <i>Sporobolus pectinatus</i> , <i>Themeda triandra</i> , <i>Trachypogon spicatus</i> , <i>Tristachya leucothrix</i> , <i>Tristachya rehmannii</i> .
Herbs:	<i>Berkheya setifera</i> , <i>Haplocarpha scaposa</i> , <i>Justicia anagaloides</i> , <i>Pelargonium luridum</i> , <i>Acalypha angustata</i> , <i>Chamaecrista mimosoides</i> , <i>Dicoma anomala</i> , <i>Euryops gilfillanii</i> , <i>Euryops transvaalensis</i> subsp. <i>setilobus</i> , <i>Helichrysum aureonitens</i> , <i>Helichrysum caespititium</i> , <i>Helichrysum callicomum</i> , <i>Helichrysum oreophilum</i> , <i>Helichrysum rugulosum</i> , <i>Ipomoea crassipes</i> , <i>Pentanisia prunelloides</i> subsp. <i>latifolia</i> , <i>Selago denisiflora</i> , <i>Senecio coronatus</i> , <i>Hillardia oligocephala</i> , <i>Wahlenbergia undulata</i> .
Succulent herb:	<i>Aloe ecklonis</i> .
Geophytic herbs:	<i>Gladiolus crassifolius</i> , <i>Haemanthus humilis</i> subsp. <i>hirsutus</i> , <i>Hypoxis rigidula</i> var. <i>pilosissima</i> , <i>Ledebouria ovatifolia</i> .
Soweto Highveld Grassland	
Low shrubs:	<i>Anthospermum hispidulum</i> , <i>Anthospermum rigidum</i> subsp. <i>pumilum</i> , <i>Berkheya annectens</i> , <i>Felicia muricata</i> , <i>Ziziphus zeyheriana</i> .
Herbaceous climber:	<i>Rhynchosia totta</i> .
Graminoids:	<i>Andropogon appendiculatus</i> , <i>Brachiaria serrata</i> , <i>Cymbopogon pospischilii</i> , <i>Cynodon dactylon</i> , <i>Elionurus muticus</i> , <i>Eragrostis capensis</i> , <i>Eragrostis chloromelas</i> , <i>Eragrostis curvula</i> , <i>Eragrostis plana</i> , <i>Eragrostis planiculmis</i> , <i>Eragrostis racemosa</i> , <i>Heteropogon contortus</i> , <i>Hyparrhenia hirta</i> , <i>Setaria nigrirostis</i> , <i>Setaria sphacelata</i> , <i>Themeda triandra</i> , <i>Tristachya leucothrix</i> .
Herbs:	<i>Hermannia depressa</i> , <i>Acalypha angustata</i> , <i>Berkheya setifera</i> , <i>Dicoma anomala</i> , <i>Euryops gilfillanii</i> , <i>Geigeria aspera</i> var. <i>aspera</i> , <i>Graderia subintegra</i> , <i>Haplocarpha scaposa</i> , <i>Helichrysum micronifolium</i> , <i>Helichrysum nudifolium</i> var. <i>nudifolium</i> , <i>Helichrysum rugulosum</i> , <i>Hibiscus pusillus</i> , <i>Justicia anagaloides</i> , <i>Lippia scaberrima</i> , <i>Rhynchosia effusa</i> , <i>Schistostephium crataegifolium</i> , <i>Selago densiflora</i> , <i>Senecio coronatus</i> , <i>Vernonia oligocephala</i> , <i>Wahlenbergia undulata</i> .
Geophytic herbs:	<i>Haemanthus humilis</i> subsp. <i>hirsutus</i> , <i>Haemanthus montanus</i> .

7.12 Fauna

7.12.1 Regional Description

A summary of potentially occurring vertebrate and invertebrate taxa (for those taxonomic groups for which comprehensive distribution data is readily available) are provided only, and are subject to in **Table 7-11**. The lists are based on desktop research change following observations during the field surveys.

Table 7-11: Summary of Potentially Occurring Species (NSS, 2014)

Faunal Group	No. of Potentially Occurring Species
Mammals (class: Mammalia)	53
Birds (Class: Aves)	196
Reptiles (Class: Reptilia)	31

Faunal Group	No. of Potentially Occurring Species
Frogs (Class Amphibia)	14
Butterflies (Order: Lepidoptera)	19
Scorpions (Order: Scorpiones)	3

There is currently little information on the geographic ranges and conservation status of most other terrestrial macro-invertebrates in South Africa. Moreover, comprehensive sampling and accurate identification of all insect, arachnid, crustacean, molluscan and other terrestrial macro-invertebrate taxa would require considerable sampling effort, time, specialist expertise and funding. This assessment, thus, involved opportunistic sampling of some of the more conspicuous terrestrial macro-invertebrates for which atlas data exists (ie: butterflies and scorpions).

Of the 53 potentially occurring mammal species, 21 species are highly likely to occur and include Steenbok (*Raphicerus campestris*), Slender Mongoose (*Galerella sanguinea*), Large-spotted Genet (*Genetta tigrina*), Striped Polecat (*Ictonyx striatus*), Vlei Rat (*Otomys irroratus*), Springhare (*Pedetes capensis*), Striped Mouse (*Rhabdomys pumilio*) and Pouched Mouse (*Saccostomus campestris*). Thirty-two species have a moderate LoO given their marginal distribution, ecological requirements, habitat transformation and / or sensitivity to disturbance. These species include e.g. the Highveld Golden Mole (*Amblysomus septentrionalis*), Caracal (*Caracal caracal*), Spotted Neck Otter (*Lutra maculicollis*) and other

small carnivores, the cave-dwelling Natal Long-fingered (*Miniopterus natalensis*) and Geoffroy's Horseshoe (*Rhinolophus clivosus*) bats, Southern African Hedgehog (*Atelerix frontalis*), and various habitat-specific shrew and rodent species. Common Duiker (*Sylvicapra grimmia*), Reedbuck (*Redunca arundinum*), and the spoor of Serval (*Leptailurus serval*) were tentatively identified on site by WSP (J. Bedford-Owen pers. comm. 2014). Servals have also reportedly been seen by mine staff (J. Bedford-Owen pers. comm. 2014).

Of the 196 potentially occurring avifaunal species, 129 species are highly likely to occur, and 67 species may occur given their marginal distribution, ecological requirements, habitat transformation and / or sensitivity to disturbance. Water, insect-eating and seed-eating species, respectively, represent approximately 30%, 36% and 16% of the 129 avifaunal species that are highly likely to occur. Seven raptor and three nocturnal (i.e. owl and nightjar) species also have a high LoO. Water birds also represent the largest proportion (34%) of the 67 species that have a moderate LoO. Five raptor and one nocturnal species may occur. Potentially occurring species that are most sensitive to disturbance include e.g. Caspian Tern (*Sterna caspia*), African Openbill (*Anastomus lamelligerus*), Southern Bald Ibis (*Geronticus calvus*), Black-winged Pratincole (*Glareola nordmanni*), Lesser Flamingo (*Phoenicopterus minor*), Greater Flamingo (*Phoenicopterus ruber*), Maccoa Duck (*Oxyura maccoa*), African Marsh-harrier (*Circus ranivorus*), Blue Korhaan (*Eupodotis caerulescens*), Lanner Falcon (*Falco biarmicus*), Lesser Kestrel (*Falco naumanni*) and African Grass-owl (*Tyto capensis*). African Grass-owl was tentatively identified on site by WSP (J. Bedford-Owen pers. comm. 2014).

Potentially 31 reptile species may occur in the study area, of which the majority are represented by colubrid snakes. Fifteen reptile species have a high LoO and include common and adaptable species such as Brown House Snake, Brown Water Snake, Mole Snake, Thread Snake, Bibron's Blind Snake, Distant's Ground Agama, Transvaal and Cape Gecko, and Cape and Variable Skink. Fifteen reptile species have a moderate LoO given their marginal distribution, ecological requirements, habitat transformation and / or sensitivity to disturbance. Species with a marginal distribution include e.g. South Eastern Green Snake (*Philothamnus hoplogaster*), Short-snouted Grass Snake (*Psammophis brevirostris*), Mozambique Spitting Cobra (*Naja mossambica*) and Rhombic Night Adder (*Causus rhombeatus*). Species that are sensitive to disturbance include e.g. Spotted Harlequin Snake (*Homoroselaps lacteus*), Aurora House Snake (*Lamprophis aurora*), Common Flap-necked Chamaeleon (*Chamaeleo dilepis dilepis*), Coppery Grass Lizard (*Chamaesaura aenea*), and Short-headed Legless Skink (*Acontias breviceps*).

Fourteen amphibian species potentially occur in the study area, of which seven species have a high LoO, several of which have been observed on site by WSP (J. Bedford-Owen pers. comm. 2014). Species that are highly likely to occur include the common Raucous Toad (*Amietophrynus rangeri*) and Red Toad (*Schismaderma carens*), Snoring Puddle Frog (*Phrynobatrachus natalensis*), Common River Frog (*Amietia angolensis*), Striped Stream Frog (*Strongylopus fasciatus*), Tremolo Sand Frog (*Tomopterna cryptotis*) and Natal Sand Frog (*Tomopterna natalensis*). Giant Bullfrog (*Pyxicephalus adspersus*) has a moderate LoO considering that while local climatic conditions are suitable for this species (Yetman, 2012), extensive crop

cultivation and mining have likely reduced or destroyed local populations. Available butterfly distribution data (i.e. SABCA, 2010; Mecenero et al. 2013; LepiMap, 2014) suggest that there is a very low diversity of butterfly species within the degree square 2629, including QDS 2629AC wherein Block Z is situated. This is likely due to a long-standing lack of sampling effort in this region because common butterfly species such as the Broad-bordered Grass Yellow (*Eurema brigitta brigitta*), Pirate (*Catacroptera cloanthe cloanthe*), Common Diadem (*Hypolimnas misippus*), Eyed Pansy (*Junonia orithya madagascariensis*), Painted Lady (*Vanessa cardui*) and Brown-veined White (*Belenois aurota aurota*) have reportedly never been recorded in the area even though NSS has observed these species at nearby sites. The appended butterfly list, therefore, probably provides a poor reflection of local butterfly diversity, and at least several more butterfly species occur in the study area. At least three scorpions are considered likely to occur in the study area. These include *Cheloctonus jonesii*, which inhabits peaty soils, and the thick-tailed scorpions *Pseudolychas pegleri* and *Uroplectes triangulifer*, which are known to occur in suburban and even industrial areas in Gauteng.

7.13 Archaeology and Cultural Heritage

In order to understand possible finds that could be unearthed during construction activities, it is necessary to give a background regarding the different phases of human history in the area. **Figure 7-20** presents the site relative to the Ramsar and World Heritage Sites.

7.13.1 Historical Context

7.13.1.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

- Early Stone Age (ESA) 2 million – 150 000 years ago;
- Middle Stone Age (MSA) 150 000 – 30 000 years ago; and
- Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

The geographical area around the town of Kriel is not known as an area containing prehistoric sites dating to the Stone Age. For instance no such sites are indicated on maps contained in a historical atlas of this area (Bergh 1999: 4-5). However this may only be since no research has actually been done in this area. The closest known Stone Age occurrences are a Late Stone Age site at the town of Ermelo and rock art sites in the Chrissiesmeer area (Bergh 1999: 4-5) which lies much further to the south-east.

However, no natural shelters were seen during the survey and therefore it is possible that these people did not stay here for long periods. The good vegetation in the surrounding area and the rivers indicated that ample grazing and water may have been available, making it a prime spot for hunting in the past. Therefore one may assume that Stone Age people probably would have moved through the area.

7.13.1.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

- Early Iron Age 200 – 1000 A.D; and
- Late Iron Age 1000 – 1850 A.D.

Huffman (2007: xiii) however, indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

- Early Iron Age (EIA) 250 – 900 A.D;
- Middle Iron Age (MIA) 900 – 1300 A.D; and
- Late Iron Age (LIA) 1300 – 1840 A.D.

In the historical atlas no sites from the Early Iron Age are indicated in this area (Bergh 1999: 6). Again it needs to be stated that this may only be a result of the lack of research done in this part of the country.

In contrast to the mentioned periods in time, it is known that Late Iron Age sites are found in a large area around the towns of Bethal and Standerton. It includes at least 585 such sites. At none of these indications of metal working has been found (Bergh 1999: 6-7), meaning that it would mostly consist of stone walled living complexes. It is also known that the early trade routes did not run through this area (Bergh 1999: 9).

During a recent survey on some farms to the east of the Isibonelo area, two Late Iron Age sites were identified, indicating that these people did utilize the area. The good grazing in the broader environment would have provided a good environment for Iron Age people although building material would have been reasonably scarce. One would therefore expect not to find many Iron Age sites, but these people definitely utilized the area. The white settlers later on moved into this environment for the same reason.

7.13.1.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This era is sometimes called the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

At the beginning of the 19th century the Phuthing, a South Sotho group, stayed in the vicinity of modern day Kriel and Bethal. During the Difaquane they fled to the south (Bergh 1999: 10-11; 109). In 1829 the traveler Robert Scoon passed through an area to the south of Kriel (Bergh 1999: 13). The first white farmers only settled here during the late 1850's. By the 1890's this area was inhabited by many white farmers (Bergh 1999: 18-20).

During the Anglo-Boer War the Highveld areas saw much action consisting of various skirmishes between Boer and Brit (Bergh 1999: 51, 54). It includes skirmishes on the farms Oshoek (4 December 1901), Trigaardsfontein (10 December 1901), Witbank (11 January 1902) and Nelspan (26 January 1902). The farm Witbank is within the project area, but battlefields usually do not contain structures, but only artefacts such as bullet casings.

One may therefore expect to find farm buildings, structures and objects in the area. One can also expect to find signs of recent historical mining activities, possible remains of artefacts on battlefields and graves. Many graveyards from this period in time have indeed been identified in surrounding areas during past surveys (Archaetnos database).

7.13.2 Site Description

The project is located in a typical Mpumalanga Highveld setting with farming as the main activity. The topography of the surveyed area consists of rolling hills which slope gradually to the west where the Dwars-in-die-wegspruit is situated, just outside of the surveyed area.

The area has been primarily used for grazing resulting in low disturbance occurring, with only a relatively small area disturbed by agriculture. The most northern and north-western section of the surveyed area were identified as a rehabilitated open cast mine.

The grass cover was noted to be very dense with a length of approximately 0.5 – 1m high. Previously disturbed areas contain high concentrations of high growing weeds and cosmos flowers. The high density of vegetation had an extremely negative effect on archaeological visibility – in certain areas one only had vision for about 2-5m.

While no sites of cultural heritage significance were encountered in the proposed Block Z area, an adjacent area containing at least 9 graves was encountered. Graves are regarded as having a high cultural significance and this site has therefore received a field rating of Local Grade III B. The site should be included in the heritage register, but as it is not located within the proposed project area the graves need not be relocated and can be fenced off.



Figure 7-18: One of the nine graves located in the surrounding areas (north western side of the Dwars-in-die-wegspruit).

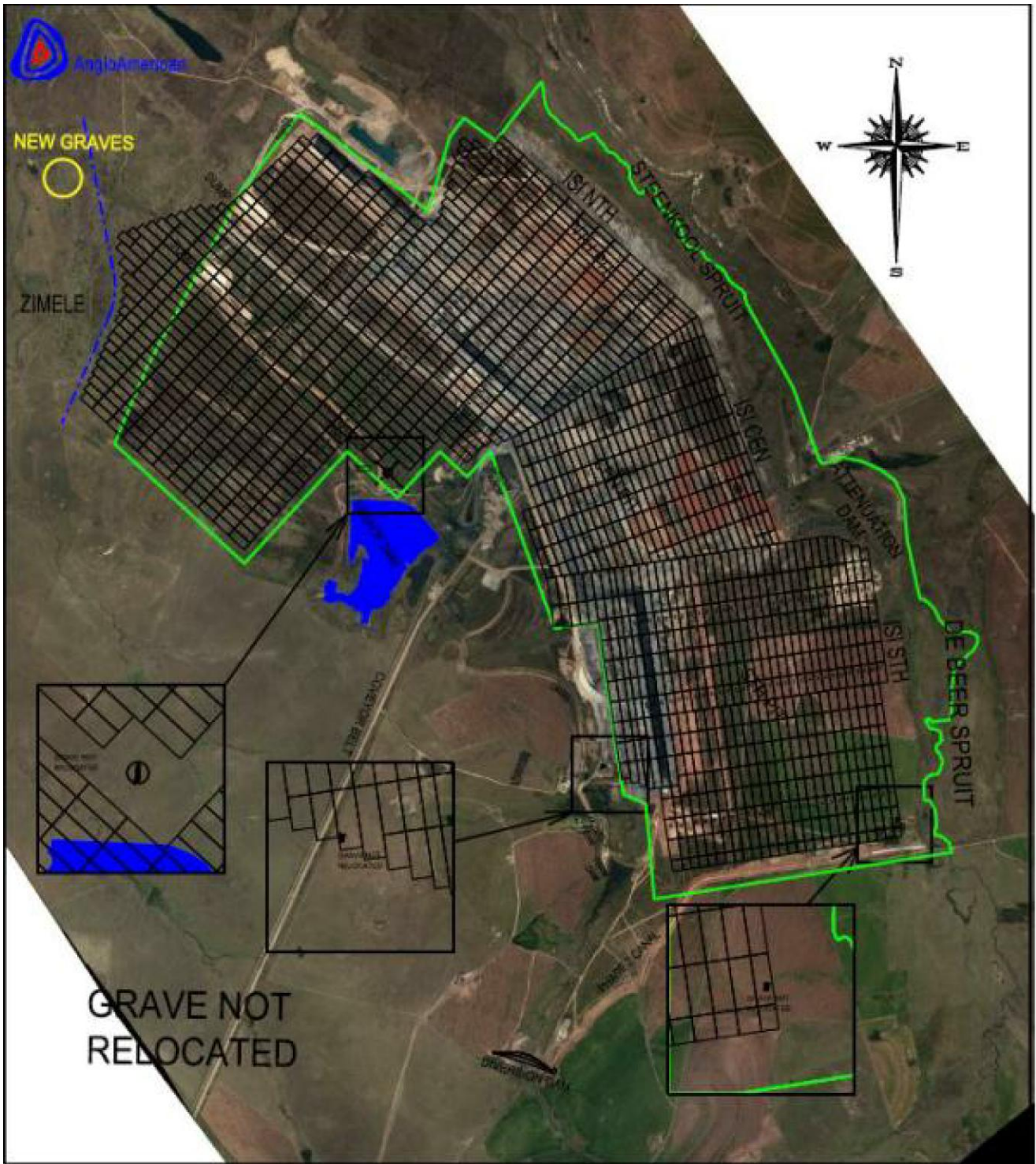


Figure 7-19: Location of the grave site identified North West of Block Z.

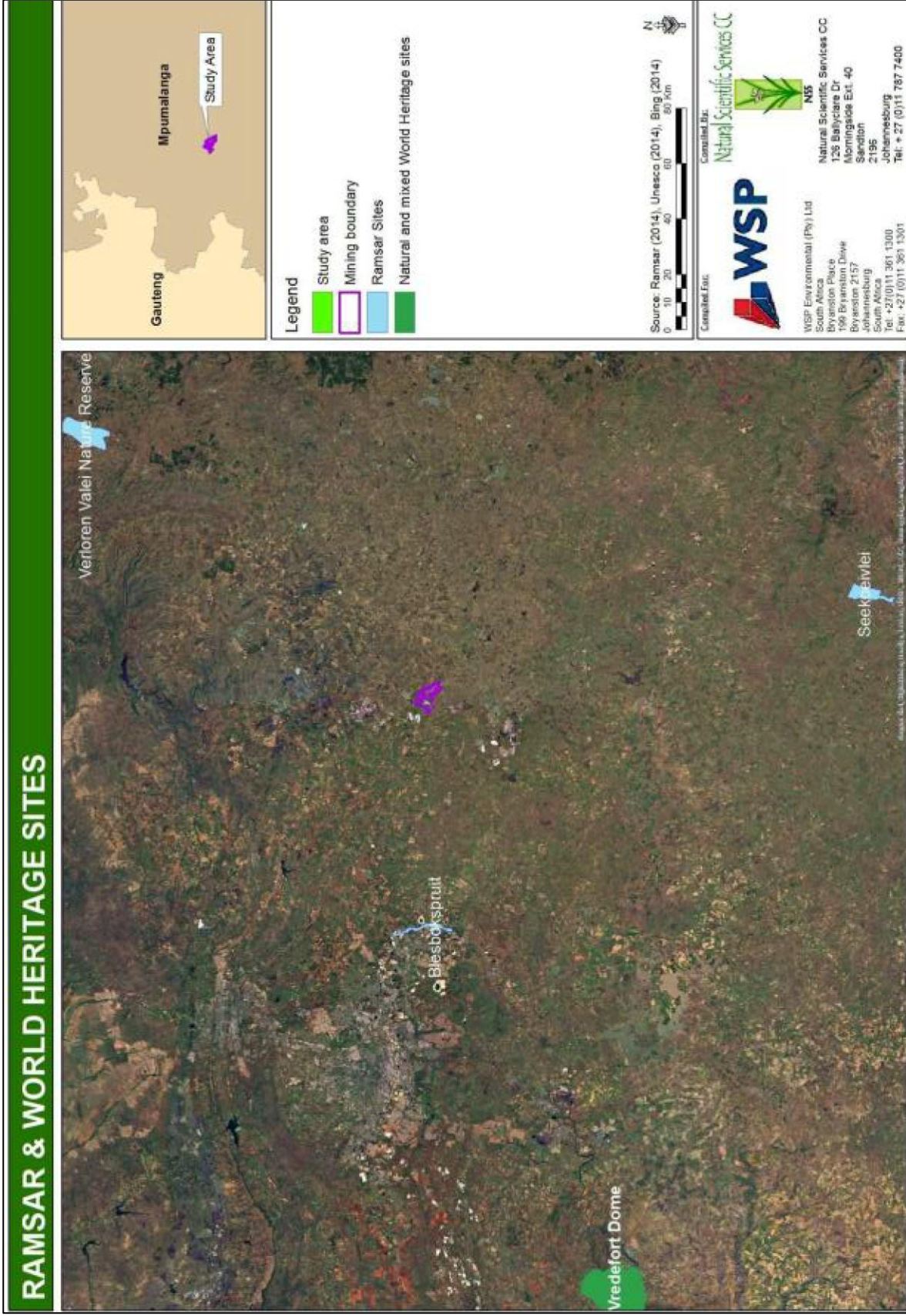


Figure 7-20: The location of Ramsar and World Heritage sites in relation to the study area (NSS, 2014)

7.14 Socio-Economic

7.14.1 Regional

The Mpumalanga Province is geographically split into the Highveld and the Lowveld by the northern reaches of the Drakensberg Mountain range. It covers an area of 76,495 km² approximately 6.3% of the country. Agriculture is one of the largest economic sectors in Mpumalanga, covering 68% of the land use in the province (Mpumalanga Economic Growth and Development Path, 2011).

Manufacturing is the largest economic sector in Mpumalanga, contributing almost 25% of the gross geographic product (GDP). This sector comprises predominantly of Sasol's coal refining activities and chemical operations in the southern Highveld (Secunda), however, chrome alloy and steel manufacturing also occurs in this area. The Lowveld is dominated by agricultural product manufacturing, including food and related industries, sugar mills, paper and pulp and other forestry related activities (SOER, 2005)

The mining sector is another important primary sector activity, providing 24% of the GGP and 6% of the employment in the province. In 2009, Mpumalanga contributed R169.9 billion to the GDP of South Africa (2011). The main mining sector is coal, with large resources situated in the western and south-western regions, while gold, iron ore, chrome, alusite, magnetite and vanadium contribute significantly towards the mining sector (Mpumalanga Economic Growth and Development Path, 2011).

Tourism in Mpumalanga is a key economic activity for the province and South Africa, as Mpumalanga is an established tourism area (Kruger National Park, the Blyde River Canyon, Pilgrim's Rest and private game reserves), and is growing as an eco-tourism destination.

7.14.2 District

Nkangala District Municipality (DC31) is located to the North-West of the Mpumalanga province and is the smallest district in land mass (21%) and has the second largest population concentration (35%) in the province (Nkangala District Municipality IDP, 2010 / 2011). Nkangala is the economic hub of Mpumalanga and is a major contributor in terms of GDP when compared to the other districts with a contribution of 40%. Gert Sibande at 33% and Ehlanzeni 27% (Mpumalanga Economic Profile, 2009). The key economic sectors of the district include mining, manufacturing, energy and agriculture (**Table 7-12**).

Table 7-12: Sectoral Contribution to Regional Economy (Mpumalanga Economic Profile, 2009)

Sectoral Contribution to the Regional Economy	2009
Agriculture	1.9%
Mining	29.7%
Manufacturing	12.2%
Electricity	8.9%
Construction	2.1%
Trade	8.9%
Transport	8.8%
Finance	13.5%
Community services	14%

7.14.3 eMalahleni Local Municipality (MP 312)

7.14.3.1 Population

In accordance with Statistics South Africa (Statistics SA, 2011), eMalahleni Local Municipality has 395,466 people living in the area 2678 km², with a population density of 148 people per square kilometre. This is relatively high, and is likely to result from mining activities that provide employment in the local municipality. The key economic centre within the local municipality is eMalahleni, or Witbank, area, which is a coal mining and power generation centre for South Africa.

The population structure within the local municipality is bottom heavy – with the 65.5% of the population being under 35 years old. The gender profile of the eMalahleni municipality indicates that there are a higher number of males than females, 52.8% and 47.2% respectively. Both the age profile and gender difference is indicative of an in-migration of males for employment opportunities in mining and manufacturing sectors within the local area.

7.14.3.2 Education

The education levels within the local municipality are moderate, with 28.3% having some form of secondary education, 31.4% having completed grade 12 (or equivalent), and 13.9% having tertiary education. This is indicative of the high levels of commercial development within the local municipality.

7.14.3.3 Income and Employment

The income levels are low, with 40.8% of the population having no income (including non-economically active), and 23% earning less than R1600 per month. The unemployment levels are fairly high, with 36.2% of the potential labour force being unemployed (Statistics South Africa, 2011) (**Table 7-13**).

Table 7-13: Employment Sectors (Statistics South Africa, 2011)

Sector	Percentage
Formal sector	27.30%
Informal sector	3.70%
Private household	3.70%
Do not know	0.80%
Not applicable	64.50%

7.14.3.4 Housing and Services

The predominant settlement type in eMalahleni Municipality is urban (95.4%). The service levels within the local municipality are relatively high with 73.4% of the households having access to electricity (for lighting, 70.8% for cooking and 63% for heating). The water service is however lower with 54.9% of households having access to piped water, either in their dwelling or near to their property. Refuse removal services level are relatively high, as 67.2% of households have their refuse removed by the municipality, and 20.8% have their own refuse dump for disposal. Sixty eight percent has access to flushing toilets, 20.2% have access to pit toilets, and 2.5% have no access to toilet facilities.

7.14.4 Site Description

7.14.4.1 Land Use

The proposed Block Z site is currently under agricultural land use; understood to be extensive grazing and crop farming. The surrounding land uses include mining (coal) and agriculture. The area is predominantly rural, with scattered settlements and towns.

7.14.4.2 Local Communities

The site is remote in relation to formal communities and settlements within the area. There are several communities which are within the 25km study area (**Table 7-14**). Each of these settlements and towns were observed during the initial site visit (20 March 2014), and characterised according to eye-witness accounts and information obtained from personal communications with the Anglo Community Development Superintendent (Ms Fikile Mokwena) (**Table 7-14**), and topographical maps.

Table 7-14: Communities associated to the Isibonelo Colliery

Settlement Name	Distance from site	Observations Characteristics
Kriel	7km	Kriel is a small, formal residential town, presumed to have been historically developed in association with the Kriel mine. It appears to be well serviced and has a small shopping district, and access to social services.
Relocated community	10km	Small community of seven informal households, and is comprised predominantly of women (males assumed to be working away). The community was set up by Sasol in 1989 as the group was relocated, presumably from an area near Secunda ¹ . There does not appear to be any municipal services to this community.
Secunda	16km	A medium-sized town and municipal centre for the local municipality. Historically, this town was developed around the Secunda Sasol plant (located southwest of the town). It is comprised of formal business and residential areas, and appears to have access to most municipal and social services.
Evander	17km	Evander is a primarily residential area. It appears to have access to most municipal and social services, with a small business / shopping district. The settlement is likely to have developed as a direct result of the Secunda Sasol plant, to provide housing for staff.
Embalenhle	24km	This is a township located southwest of the Sasol plant. This is likely to have developed historically as a residential area for Black African staff and labour at the Sasol plant. This settlement has limited access many municipal and social services ² .
Small formal and informal farming settlements	Various	There are a number of small farming settlements within the vicinity if the proposed site (which could be indirectly affected by the proposed Block Z project). These could include farm houses and associated structures, and formal and informal farm labour communities. Details of all potential affected settlements are not known at this stage. E.g. A small farm community, located 12km south of the site, comprised of over 15 households. These are assumed to be the households of farm labourers and their families ³ . There does not appear to be any municipal services to this community, however, the farmer (land-owner) may provide limited services. They appear to be low-income households

¹ Source: Anglo Community Development Superintendent

² Source: Anglo Community Development Superintendent

³ Source: Anglo Community Development Superintendent

7.14.4.3 Anglo Employment and Employees

Sasol (Secunda) is the primary employer in the immediate area (although it falls within the neighbouring Govan Mbeki Local Municipality), with mining operations being secondary employees locally. There are currently 316 permanent staff employed at the Isibonelo Colliery, and 887 individuals employed on a contractual basis.

No staff or labour is accommodated on site, and travel by private vehicles or public transport to the colliery on a daily basis (assisted by transport allowances). Staff and labour primarily reside in the Evander, Embalenhle, Bethal, Kinross and Kriel areas.

7.14.4.4 Social responsibility and Engagement

Anglo subscribes to a set of social management operational procedures, and social and community responsibility and communications programmes. These aim to promote sustainable socio-economic development within local communities and stakeholders. The set of tools include:

- Anglo Safety Way (Safety Management System Standards)
- Socio-economic Assessment Toolbox (socio-economic evaluation and engagement methodology)
- South African Mining Charter and the MRPDA – including Social and Labour Plan (SLP) and social responsibility
- Corporate Social Responsibility programmes (Internal)
- Supply Chain Sustainable Development Code (including good labour practices, and addressing poverty and HIV / Aids).

There are no communities exclusively related, or in proximity, to the Isibonelo Colliery, and Anglo appears to have a good relationship with local communities. Anglo has indicated that there are very few issues with social unrest or protests from local communities, with the Kriel and neighbouring informal communities being the only recent exceptions. These issues are related to Kriel Colliery and Isibonelo Colliery respectively, and issues raised regarding the employment of local individuals and more opportunities for women.

Stakeholder communication takes place regularly with key stakeholders and municipal representatives, through the Community Development Superintendent and Community Engagement Department.

8 Environmental and Socio-Economic Issues and Impacts

It is understood that the proposed Block Z project will cause impacts to the immediate, surrounding and regional biophysical and socio-economic environment. Specific environmental and socio-economic impacts will occur at different phases of the proposed Block Z project during the life of mine.

As with many mining operations implementing open cast, strip, benching etc. mining methods, Isibonelo Colliery completes a multi-phased approach in that construction, operation, decommissioning and rehabilitation are undertaken concurrently. For purposes of this report, these phases have been generically defined below.

- Construction / Preparation: the preparatory works / activities typically associated with the development / establishment of a new pit but not including the extraction of coal;
- Operation: the activities associated with the extraction of coal from an open cast / pit;
- Decommissioning: the activities associated with the removal / dismantling of machinery / equipment / infrastructure no longer necessary to the operation;
- Rehabilitation: the activities associated with the initial backfilling, levelling and placement of topsoil to agreed level(s) (as per EMPR), fertiliser, re-vegetation and maintenance thereof;
- Closure: Cessation of mining operations in totality and the closure certificate has been applied for or issued (Including completion of rehabilitation goals, application for closure, transfer of liability to the State and agreed post-closure monitoring and maintenance).

All the above phases include continued monitoring and management of environmental aspects throughout

The impacts associated with each of these phases will be specific to the mineral commodity, environmental and socio-economic context, mining method, spatial and temporal aspects of the operation and stated rehabilitation goals. For the purpose of this report, anticipated / potential impacts have been identified, based on the EAP and specialists' experience (consideration of typical impacts of similar projects in similar conditions) and stakeholder inputs.

WSP will assess the environmental and socio-economic impacts associated with the proposed mine during the EIR phase of the S&EIR Process. The methodology that will be utilised is detailed in **Section 9** of this report (specifically **Table 9-1** to

Table 9-8).

8.1 Potential Impacts

The following potential environmental and socio-economic impacts associated with the proposed Block Z project will be assessed during the EIR phase of the process. Impacts are identified by utilising a number of sources. Preliminary specialist studies have been performed to inform the impact identification process; furthermore, stakeholder comments received were evaluated and existing available empirical data has been reviewed/consulted. The impacts include all aspects of the mining and associated activities during the construction, operation, decommissioning and closure phases:

The following biophysical / environmental and social impacts were identified and have been further detailed in **Table 8-1**:

- Geology;
- Topography;
- Air quality;
- Soil, land use and land capability;
- Biodiversity;
- Hydrology and geohydrology;

- Noise;
- Visual aspects;
- Sites of archaeological, historic or cultural interest; and
- Socio-economic aspects.
- Key stakeholder Issues

No mitigation measures have been included in this report, the proposed mitigation and measures management measures, as well as specialist recommendations will be included in detail in the EIR. It should be noted that pre-existing and current impacts have been considered and will form part of the impact identification assessment. Impacts associated with the proposed Block Z project included in **Table 8-1**.

Table 8-1: Potential Impacts that may occur due to the proposed Block Z project

Environment	Anticipated Impact (without mitigation measures)
Geology	<ul style="list-style-type: none"> ■ The proposed Block Z project may have an impact on the rock masses that influence the groundwater and topography on the project site. ■ Excavation of rock for the box cuts will influence the underlying geology of the site as a void will be created, that will have a steep gradient or stepped highwalls. ■ Resultant impacts from blasting and vibrations may impact on geology in the immediate area. ■ The extraction of coal and overburden from the opencast pit will result in the permanent impact on the geology.
Topography	<ul style="list-style-type: none"> ■ Site clearing and topsoil removal may impact local topography. ■ Disturbance of topography as a result of the excavation of the box-cut, stockpiling of the resultant waste rock and soil (separate stockpiles). ■ Potential aesthetic impact resulting from the overburden stockpiles, topsoil stockpiles and mine infrastructure (such as a dragline, etc).
Air Quality	<ul style="list-style-type: none"> ■ The generation of dust from the construction, operational and closure phases of the mine is anticipated (land clearing, drilling, blasting, processing, transport of product via road, stockpiling waste rock, overburden, topsoil and product, etc.). <ul style="list-style-type: none"> – Dust may impact on the health and safety of employees and the surrounding community through respiratory, visual and aesthetic impacts. – Dust fallout can retard vegetation growth and reduces the palatability of plants to animals. ■ The transportation of coal product results in a release of volatile organic compounds (VOCs) from vehicle exhausts which may impact on the health of the mine employees and attribute to climate change. ■ Spontaneous combustion of coal produces CO₂, noxious gases and smoke which may impact on the receiving environment as well as the health and safety of the community. ■ Spontaneous combustion may cause safety impacts on the mine employees and could render the surface unusable, therefore impacting on soils, surface water, biodiversity and land use.
Soil, Land Use and Land Capability	<ul style="list-style-type: none"> ■ Excavation and soil stockpiling during site preparation may result in the dilution of fertile organic components in soil with sterile soil and may result in the loss of topsoil on the site. ■ Excavation and soil stockpiling may result in the ingress of alien invasive plant species to the area, impacting on the future sustainable land use potential and land capability after mining. ■ Mining activities may cause erosion (e.g. stormwater runoff), resulting in a loss of fertile topsoil resources. ■ Compaction of soil may concentrate surface water runoff from the proposed Block Z project site, resulting in erosion and flooding. ■ Leachate from overburden or product stockpiles may contaminate soils from infiltration, resulting in surface and groundwater contamination. ■ Soil contamination may occur from spillages and leakages of hydrocarbons, contaminated water,

Environment	Anticipated Impact (without mitigation measures)
	<p>plant runoff, etc. onsite.</p> <ul style="list-style-type: none"> ■ Contamination of soils from the poor management of mineral and non-mineral wastes generated onsite. ■ Potential acid mine drainage could result in acidic and saline soils, making conditions unsuitable for vegetation growth following mine closure.
Biodiversity	<ul style="list-style-type: none"> ■ The proposed Block Z project will result in the removal of the current flora and fauna species presently occupying the site resulting in reduced biodiversity in the immediate areas. ■ Mining and associated activities may disturb indigenous fauna and flora in the surrounding area due to the presence of humans and the use of mining machinery and infrastructure. ■ Potential impact on habitat corridors may result in the degradation of indigenous flora and fauna species, and changes in populations reliant on movement or interchange between habitats. ■ Potential poisoning on biodiversity through mismanagement of dangerous goods and any mineral or non-mineral type wastes. ■ Mining activities may introduce alien vegetation, which may encroach and impact on the ecosystem. ■ Opencast mining activities may impact the groundwater table, impacting sensitive areas such as wetlands within the immediate area as well as the groundwater supply to the adjacent river. ■ Potential loss of vegetation and habitats resulting from uncontrolled fire resulting from machinery operation on-site or unauthorised open fires. ■ The release of dust and emissions into the air could drive away fauna populations and result in the retardation of flora growth due to dust fall out. ■ Release, spillages and leakages of chemicals, hydrocarbons and sewage may impact upon the natural processes of the surrounding ecosystem.
Hydrology and geohydrology	<ul style="list-style-type: none"> ■ Impacts on surface water and groundwater recharge due to modification of infiltration rates from excavation, infill and compaction activities. ■ Impacts on adjacent wetlands due to the mining activities modified surface flow and ground water recharge. ■ Acid mine drainage increases the acidity of water. The runoff may affect surface water quality, groundwater and biodiversity in the area. ■ Potential surface and groundwater contamination from spillages and release of process water which infiltrates the surrounding environment. ■ Potential pollution or impact on the hydrology and geohydrology resulting from incorrect storage and management of dangerous goods (hazardous and chemical materials) and / or other contaminants. ■ Pumping of groundwater required for safe mining conditions may have a direct impact on the water table (reducing natural groundwater recharge). ■ Emergency discharge and/or failure of mining related infrastructure of contaminated process water to the adjacent stream may alter downstream ecosystems and biota status. ■ Physical disruptions of aquifers may occur from blasting, causing groundwater to seep to lower aquifers, which could result in cross contamination of aquifer resources and/or loss of natural resources.
Noise and Vibrations	<ul style="list-style-type: none"> ■ Noise will be generated from drilling, blasting, mining operations, transportation, processing, machinery etc. which may have a negative impact on the surrounding biophysical and socio-economic environment i.e. impact biodiversity and humans alike ■ Vibrations from blasting may impact on the underlying geology of the site. ■ Vibrations could cause failure of mine infrastructure which could impact on the health and safety of employees, as well as result in subsidence.
Visual	<ul style="list-style-type: none"> ■ The additional mining infrastructure with varying heights will result in a negative impact on the aesthetics of the area. ■ The generation of dust and smoke / emissions from mining operations and vehicle movement may

Environment	Anticipated Impact (without mitigation measures)
	have a visual impact within the surrounding area.
Archaeology, Historic and Cultural	<ul style="list-style-type: none"> ■ The proposed Block Z project may have an impact on uncovered sites of archaeological, historic and cultural importance / significance. ■ Unidentified graves may be uncovered during construction and operations which will impact on the culture of the area.
Socio-economic	<ul style="list-style-type: none"> ■ Coal supply to SSF will ensure the continued production of fuels for use in the country thus resulting in a positive impact on the surrounding communities and the country. ■ Job security within the mine and local companies (i.e. direct and indirect) will benefit local communities. ■ Training may be provided to employees resulting in an improvement of the local skills base. ■ The Social and Labour Plan will be updated, which will include a number of existing social initiatives as well as the possibly initiation of new social initiatives. ■ Support may be given to the local and national economy by the purchase of goods and services. ■ The proposed Block Z project may have negative impacts on the health and safety of the surrounding community and future employees from the generation of dust, air emissions (noxious gases and smoke), noise, vibrations, traffic, and contamination of surface and groundwater. ■ The proposed Block Z project may have an aesthetic impact on the surrounding communities. ■ Increase in economic growth and local economic development within the District and Local Municipalities. ■ The increase in individuals in the area may impact on social pathologies, such as social ills, crime, etc.

8.1.1 Cumulative Impacts

Cumulative impacts may occur over different spatial and temporal scales by interacting, combining, compounding so that the overall effect could be considered the sum of the attributing factors.

The potential impacts identified in **Table 8-1** were identified from specific mining related activities associated with Block Z. The purpose of identifying and assessing cumulative impacts is to rate impacts, which when individually assessed may not require management but when assessed with an interacting, combining, compounding impacts could prove to be significant and require management.

Cumulative impacts identified herein considered the potential effects of existing surrounding mining, farming and industrial activities, as well as known proposed activities. The key cumulative impacts which may arise from the activities of the proposed Block Z project are listed below:

- Geohydrology and hydrology – loss of a natural resource within the surrounding area;
- Air quality – generation of dust / fumes which would impact on the biophysical and social environments;
- Biodiversity – the permanent transformation of an ecological system could result in local and regional biodiversity loss; and
- Land capability – development of the proposed Block Z project area could result the permanent transformation of land capability and use.

The specialist studies have not yet been completed; hence the significance of the impacts cannot be properly assessed at this stage. The severity and risk of the impacts will be quantified once the specialist studies are complete. The findings of the specialist studies will be detailed fully in the EIR / EMPR report which will be developed during the EIR phase.

9 Plan of Study for the Environmental Impact Reporting phase

9.1 Purpose of the Plan of Study

This Section is intended to provide a summary of the key findings of the scoping phase of the S&EIR process and to describe the activities to be undertaken in the EIR phase of the S&EIR. Legislatively, the Section must provide the following:

- A description of the environmental issues identified during scoping phase that may require further investigation and assessment;
- A description of the feasible design and placement alternatives identified during Scoping that may be further investigated;
- An indication of additional information required to determine the potential impacts of the proposed activity on the environment;
- A description of the proposed method of identifying these impacts; and
- A description of the proposed criteria for assessing the significance of these impacts.

The requirements of Regulation 28 of GNR 543 promulgated in terms of Section 24 of the NEMA have been reviewed in order to ensure compliance therewith. These requirements are as follows:

- A description of the tasks that will be undertaken as part of the environmental impact assessment process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken;
- An indication of the stages at which the competent authority will be consulted;
- A description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity;
- Particulars of the public participation process that will be conducted during the environmental impact assessment process; and
- Any specific information required by the competent authority.

In addition, there are a number of other requirements which the plan of study for EIR phase must address. These include the following:

- The Department of Environmental Affairs and Tourism (DEAT) EIA Regulations Guideline Document (April 1998); and
- The DEA response to the FSR and POS for EIR phase (when received).

9.2 Summary of the scoping phase

The S&EIR process for the proposed Block Z project comprises two main phases, namely the scoping phase and the EIR phase. This report documents the tasks which have been undertaken as part of the scoping phase of the EIA. These tasks include the public participation process and the documentation of the issues which have been identified as a result of these activities. To date, tasks that have commenced include the:

- Identification of stakeholders or I&APs;
- Notification and advertisements;
- Background Information Documents; and
- Ongoing consultation and engagement.

The DSR was released for public review and comment from **8 August – 12 September 2014**. During the review period a public participation process was undertaken, allowing stakeholders to engage with the project proponents and independent environmental consultants. The public participation comprised a public meeting as well as one-on-one interactions where required. Issues raised by stakeholders during the public participation process are document herein.

The relevant authorities required to review the proposed Block Z project and provide an EA were consulted from the outset of this study, and have been engaged throughout the project process.

9.3 Environmental Impact Assessment

9.3.1 Introduction

The purpose of the EIR phase of the S&EIR process is as follows:

- Address issues that have been raised during the scoping phase;
- Assess alternatives to the proposed activity in a comparative manner;
- Assess all identified impacts and determine the significance of each impact; and
- Formulate mitigation measures.

Numerous acceptable approaches and methodologies exist by which the above purpose can be achieved. The legislation in South Africa, including the guideline documents published in support thereof, does not provide a specific methodology for the assessment of impacts. Rather, an assessment framework is provided within which environmental assessment practitioners are expected to structure a project-specific assessment methodology. This assessment framework recognises that there are different methodologies available for assessing the impact of a development but that the specific methodology selected must provide for the following:

- A clear process for impact identification, prediction and evaluation;
- The specification of impact identification techniques;
- Criteria for evaluating the significance of impacts;
- The design of mitigation measures to address impacts;
- Defining types of impacts (direct, indirect or cumulative); and
- Specification of uncertainties.

This Section of the Final PoS for EIR serves to describe the manner in which WSP intends undertaking the EIR phase of the S&EIR process.

The EIA process will be undertaken in line with the requirements of the promulgated EIA Regulations of the NEMA as well as the requirements of the MPRDA.

The outcomes of the plan of study for S&EIR include the following:

- Provide a description of the tasks that are undertaken as part of the S&EIR process, including any specialist reports or specialised processes, and the manner in which such tasks were undertaken;
- Provide an indication of the stages at which the competent authority will be consulted;
- Provide a description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity;
- Overview of the stakeholder engagement that was conducted during the S&EIR process; and
- Include any specific information required by the competent authority.

The purpose of the S&EIR and draft EMPR is to provide / determine:

- An assessment of the environments likely to be affected by the proposed mining project;

- An assessment of the nature, extent, duration, probability and significance of the identified potential environmental, social and cultural impacts of the proposed Block Z project;
- A comparative assessment of the identified land use and development alternatives and their potential environmental, social and cultural impacts;
- The appropriate mitigation measures for each significant impact of the proposed Block Z project;
- Details of the stakeholder engagement process followed during the course of the assessment and an indication of how the issues raised have been addressed;
- Identification of knowledge gaps and reporting on the adequacy of predictive methods, underlying assumptions and uncertainties encountered in compiling the required information;
- A description of the arrangements for monitoring and management of environmental impacts; and
- Inclusion of technical and supporting information as appendices, if available.

The draft S&EIR report and draft EMPR document that is submitted for stakeholder review and approval by the responsible authorities (DMR, MDEDET, DEA, DWA, etc.) will include the following:

9.3.2 Stakeholder Engagement

The stakeholder engagement process during the S&EIR phase is to be undertaken in a comprehensive and transparent manner. Although requirements of both the MPRDA and NEMA will be taken into consideration, WSP perceives that the requirements of the NEMA pertaining to stakeholder engagement process more stringent than the requirements of the MPRDA. Therefore WSP will be following the NEMA requirements for stakeholder engagement.

The NEMA EIA Regulations (Sections 54 – 57) require that an inclusive, transparent process of engagement – sharing of information, receipt of comments, expression of issues and concerns, and response and feedback regarding issues and concerns – be undertaken that allows participation by any and all persons and entities who may be affected by and / or have an interest in a proposed Block Z project. Procedures for informing stakeholders about a project and engaging their participation will be standard practice.

As was undertaken during the scoping phase of the project, the stakeholder consultation process will be continued in English, Afrikaans and Zulu. Letters will be circulated to stakeholders via email notifying them of the commencement of the EIR phase and proposed public meeting date. This public feedback meeting will provide additional information such as specialist study results, mitigation measures and recommendations, or any other information that was not conveyed during the scoping phase, to stakeholders.

9.3.3 Impact Assessment Methodology

The objective of the assessment of impacts is to identify and assess all the significant impacts that may arise as a result of the proposed coal mine. The process of assessing the impacts of the project encompasses the following four activities:

- Identification and assessment of potential impacts;
- Prediction of the nature, magnitude, extent and duration of potentially significant impacts;
- Identification of mitigation measures that could be implemented to reduce the severity or significance of the impacts of the activity; and
- Evaluation of the significance of the impact after the mitigation measures have been implemented i.e. the significance of the residual impact.

The possible impacts associated with the project were primarily identified in the scoping phase through on-site and desktop study and public consultation. In the EIR phase, additional impacts will be identified through the more in-depth specialist investigations to be undertaken and through the ongoing consultation process with interested and affected parties.

In accordance with GNR 543, promulgated in terms of Section 24 of the National Environmental Management Act, 1998 (Act 107 of 1998), specialists will be required to assess the significance of potential impacts in terms of the following criteria:

- Cumulative impacts;
- Nature of the impact;
- Extent of the impact;
- Intensity of the impact;
- Duration of the impact;
- Probability of the impact occurring;
- Impact non-reversibility;
- Impact on irreplaceable resources; and
- Confidence level.

The potential environmental impacts will be evaluated according to their severity, duration, extent and significance of the impact. Furthermore, cumulative impacts will also be taken into consideration. WSPs risk assessment methodology in combination with AAC Risk Matrix, will be used for the ranking of the impacts.

This system derives environmental significance on the basis of the consequence of the impact on the environment and the likelihood of the impact occurring. Consequence is calculated as the average of the sum of the ratings of severity, duration and extent of the environmental impact. Likelihood considers the frequency of the activity together with the probability of an environmental impact occurring.

The following tables (**Table 9-1** to **Table 9-9**) describe the process in detail:

Table 9-1: Assessment and Rating Sensitivity

Rating	Description
1	Negligible / non-harmful / minimal deterioration (0 – 20%)
2	Minor / potentially harmful / measurable deterioration (20 – 40%)
3	Moderate / harmful / moderate deterioration (40 – 60%)
4	Significant / very harmful / substantial deterioration (60 – 80%)
5	Irreversible / permanent / death (80 – 100%)

Table 9-2: Assessment and Rating of Duration

Rating	Description
1	Less than 1 month / quickly reversible
2	Less than 1 year / quickly reversible
3	More than 1 year / reversible over time
4	More than 10 years / reversible over time / life of project or facility
5	Beyond life of project of facility / permanent

Table 9-3: Assessment and Rating of Extent

Rating	Description
1	Within immediate area of activity
2	Surrounding area within project boundary

Rating	Description
3	Beyond project boundary
4	Regional / provincial
5	National / international

Consequence is calculated as the average of the sum of the ratings of severity, duration and extent of the environmental impact.

Table 9-4: Determination of Consequence

Determination of Consequence (C)	$(\text{Severity} + \text{Duration} + \text{Extent}) / 3$
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■ Likelihood

Table 9-5: Assessment and Rating of Frequency

Rating	Description
1	Less than once a year
2	Once in a year
3	Quarterly
4	Weekly
5	Daily

Table 9-6: Assessment and Rating of Probability

Rating	Description
1	Almost impossible
2	Unlikely
3	Probable
4	Highly likely
5	Definite

Likelihood considers the frequency of the activity together with the probability of the environmental impact associated with that activity occurring.

Table 9-7: Determination of Likelihood

Determination of Likelihood (L) =	$(\text{Frequency} + \text{Probability}) / 2$
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■ Impact Significance

Impact significance is the product of the consequence and likelihood values.

Table 9-8: Determination of Environmental Significance

Environmental (Impact) = C × L	Significance	Description
L (1 – 4.9)		Low environmental significance
LM (5 – 9.9)		Low to medium environmental significance
M (10 – 14.99)		Medium environmental significance
MH (15 – 19.9)		Medium to high environmental significance
H (20 – 25)		High environmental significance. Likely to be a fatal flaw.

Table 9-9: Anglo American Coal Risk Matrix

Anglo American Plc Risk Matrix		Hazard Effect / Consequence (Where an event has more than one 'Loss Type', choose the 'Consequence' with the highest rating)				
Loss Type		1	2	3	4	5
(Additional 'Loss Types' may exist for an event; identify & rate accordingly)		Insignificant	Minor	Moderate	High	Major
Harm to People (Safety / Health) (S/H)		First aid case / Exposure to minor health risk	Medical treatment case / Exposure to major health risk	Lost time injury / Reversible impact on health	Single fatality or loss of quality of life / Irreversible impact on health	Multiple fatalities / Impact on health ultimately fatal
Environmental Impact (EI)		Minimal environmental harm – L1 incident	Material environmental harm – L2 incident remediable short term	Serious environmental harm – L2 incident remediable within LOM	Major environmental harm – L2 incident remediable post LOM	Extreme environmental harm – L3 incident irreversible
Business Interruption / Material Damage & Other Consequential Losses (BI/MD)		No disruption to operation/5% loss of budgeted operating profit	Brief disruption to operation 10% loss of budgeted operating profit/listed assets	Partial shutdown / 15% loss of budgeted operating profit/listed assets	Partial loss of operation 20% loss of budgeted operating profit/listed assets	Substantial or total loss of operation / 25% of loss budgeted operating profit/listed assets
Legal & Regulatory (L&R)		Low level legal issue	Minor legal issue; non compliance and breaches of the law	Serious breach of law; investigation/report to authority, prosecution and/or moderate penalty possible	Major breach of the law; considerable prosecution and penalties	Very considerable penalties & prosecutions. Multiple law suits & jail terms
Impact on Reputation / Social / Community (R/S/C)		Slight impact - public awareness may exist but no public concern	Limited impact - local public concern	Considerable impact - regional public concern	National impact - national public concern	International impact - international public attention
Likelihood	Examples (Consider near-hits as well as actual events)	Risk Rating				
5 (Almost Certain)	The unwanted event has occurred frequently; occurs in order of one or more times per year & is likely to reoccur within 1 year	11 (M)	16 (S)	20 (S)	23 (H)	25 (H)
4 (Likely)	The unwanted event has occurred infrequently; occurs in order of less than once per year & is likely to reoccur within 5 years	7 (M)	12 (M)	17 (S)	21 (H)	24 (H)
3 (Possible)	The unwanted event has happened in the business at some time; or could happen within 10 years	4 (L)	8 (M)	13 (S)	18 (S)	22 (H)



2 (Unlikely)	The unwanted event has happened in the business at some time; or could happen within 20 years	2 (L)	5 (L)	9 (M)	14 (S)	19 (S)
1 (Rare)	The unwanted event has never been known to occur in the business; or it is highly unlikely that it will occur within 20 years	1 (L)	3 (L)	6 (M)	10 (M)	15 (S)
Risk Rating	Risk Level	Guidelines for Risk Matrix				
21 to 25	(H) – High	A high risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised immediately.				
13 to 20	(S) – Significant	A significant risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised as soon as possible.				
6 to 12	(M) – Medium	A moderate risk exists that management's objectives may not be achieved. Appropriate mitigation strategy to be devised as part of the normal management process.				
1 to 5	(L) – Low	A low risk exists that management's objectives may not be achieved. Monitor risk, no further mitigation required.				

9.4 Terms of Reference for Specialist Studies

Table 9-10 provides a list of the Specialists that are involved in this study and their areas of expertise.

Table 9-10: Specialist Studies

Specialist Study	Organisation Responsible for the Study
Biodiversity Impact Assessment	Natural Scientific Services
Surface Water Impact Assessment and Conceptual Storm Water Management Plan	WSP
Hydrogeological Impact Assessment	JMA Consulting
Soils and Land Capability Impact Assessment	Earth Science Solutions (Pty) Ltd
Socio-Economic Impact Assessment	WSP Environmental (Pty) Ltd
Heritage Impact Assessment	Archaetnos
Air Quality Impact Assessment	WSP
Noise Impact Assessment	WSP
Blasting and Vibrating Assessment	Blast Management and Consulting

All specialist studies will include a description of the baseline environment, the identification and assessment of potential impact (including cumulative impacts) and the provision of management and mitigation measures. The terms of reference for each of the above mentioned specialist studies during the EIR phase of the project are detailed below.

9.4.1 Biodiversity Impact Assessment

Due to the provincial importance of habitat within the study area and surrounds as well as the guidelines on Biodiversity Assessments by Mpumalanga, a biodiversity impact assessment will be undertaken for the proposed Block Z project. The assessment will be conducted during the summer months and with two sampling runs (possibly December / January 2013 and March 2014 depending on rainfall) to capture as much field data as possible. The following methodology will be applied to the assessment:

9.4.1.1 Desktop Review

A desktop review will focus on sourcing current information for the area which will be obtained from the following sources:

- Latest available Mpumalanga Province Biodiversity data (such as a Sector Plan);
- National Spatial Biodiversity Assessments:
 - Descriptions of Regional Vegetation types, EcoRegions, etc; and
 - National Freshwater Ecosystem Priority Areas (NFEPA) information.
 - Relevant Legislation and Policies;
- Previous studies undertaken by NSS and other consultants in the region including:
 - Geology and geohydrology by JMA Consulting (November 2008);
 - Biodiversity by SRK Consulting (March 2010);
 - Soil and Land Capability by Earth Science Solutions; and
 - Aquatic Ecosystems by Wetland Consulting Services (November 2011).

- Communications with Mpumalanga Province and SANBI;
- Existing databases and atlases, including but not limited to the following:
 - Recent Red Data Floral Listings [produced by the Threatened Species Programme in collaboration with SANBI (National Herbarium Pretoria Computerised Information System and Integrated Biodiversity Information System (databases); and
 - Recent Red Data Faunal Listings as per the SANBI website, ADU-VM records Southern African Bird Atlas Project, Southern African Reptile Conservation Assessment, etc.
- Other studies performed within the area which are available and of relevance;
- Aerial imagery;
- Contour and Soil Data; and
- Ground and Surface water reports.

9.4.1.2 Field investigations

The field investigations will comprise the following:

- Vegetation sampling plots (within the first field visit) following internationally approved methods will be set up throughout the project area. The sites and sizes for the sampling plots will be based on the type of vegetation as well as terrain indicators. A second visit (scan) will be conducted in late summer;
- A description of vegetation communities / habitats within the each of the sampling plots (including structure, dominant plant composition and condition);
- Alien floral species will be noted, however, the mapping of all individuals / clumps (depending on extent) is excluded;
- Identification of faunal species using the following methodologies:
 - Faunal Trapping (first visit only). Five day / four night trapping methods, using arrays, pitfalls and shermans will be utilised. An overview of the sites will be investigated prior to laying the traps;
 - Visual observations (both seasons). This is performed by walking the different sites and haul road and noting habitat types and the visual presence of animals or evidence of animals in the form of faeces, pellets, spoor, nests, burrows, feathers etc.; and
 - Motion Cameras – Depending on the habitat and security in the area, the consultant will place motion cameras out for additional faunal sampling.
- Night Observations (one visit only) – NSS will conduct night driving on at least two nights during the main sampling session. In terms of the night surveys a lot of faunal activity occurs during this time for all taxa. The aim of the surveys is to try and obtain as much information on species presence as possible. Avifaunal species such as owls and nightjars can only effectively be recorded at night as well as certain rodent and mammal species. Further to this, snakes are more active during dusk and chances of seeing one are heightened;
- Potential occurrence of Conservation Important Species (CIS) such as Red Data listed, Endemic of Medicinally important will be highlighted for both fauna and flora. Any species found on site will be recorded and details provided to the relevant Conservation Authorities;
- Any additional information will be recorded for any other features that may have ecological significance – GPS points will be documented;
- The wetland component will focus on covering those systems that will be removed from clearing for the open cast activities or where the open cast area falls within the buffer (approximately 141 hectares in extent). Desktop assessment of wetlands within 500m of the sites will be investigated (only via Google

Earth or imagery available). This will be conducted as per DWA requirements. The methods which will be used will include:

- Desktop Mapping

Prior to any field investigations being undertaken, the area will be surveyed at a desktop level using 1:50,000 topographical maps, previous reports (if any), contour data and Google imagery as reference material to determine the layout of potential wetlands on the site and within 500m.

- Wetland Classification

The most popular wetland classification method used in South Africa is the classification of wetlands into hydro-geomorphic units developed by Kotze et al. (2008) in WET-EcoServices. The system excludes artificial wetlands from the classification.

- Wetland Delineations

Delineations will be conducted in accordance with the DWA Guideline "A practical field procedure for identification and delineation of wetlands and riparian areas" (DWA, 2005) for the areas as specified above.

- Present Ecological State (PES) and functional assessment

These assessments are important for assessing the current ecological importance of the wetland and for setting a benchmark for future monitoring. The methodology used to determine the PES will be dependent on the systems identified.

- Wetland Ecological Importance and Sensitivity (EIS)

- The DWA (1999) methodology will be used to determine the EIS of any wetlands identified.

The aquatic component will focus on covering those systems adjacent to the opencast boundary. A maximum of three sampling points have been identified. The bio-monitoring at each site will assess the current state PES using standardised River Health Programme methodologies, which have been approved by DWA:

- Fluvial geomorphology and riparian vegetation: Only a brief baseline description of the fluvial geomorphology will be undertaken, based on the River Health Programme site characterisation field manual by Dallas (2005). The state of the riparian / watercourse vegetation will be assessed, if applicable, during the wetland assessment.
- Habitat Integrity: Impacts on habitat will be evaluated using the Index of Habitat Integrity (IHI) derived by Kleynhans (1999) and the habitat availability will be assessed using the River Health Programme site characterisation field manual by Dallas (2005).
- Water quality data: *In situ* variables including pH, temperature, dissolved oxygen, TDS and electrical conductivity (EC) will be analysed at each site. In addition to this, water samples will be collected and analysed for the following constituents: Turbidity, Suspended Solids (SS), Nitrates, Nitrites, Orthophosphates, Ammonia, Sulphates, Chloride, COD, as well as Aluminium (Al), Calcium (Ca), Iron (Fe), Magnesium (Mg), Manganese (Mn), Sodium (Na), Chrome (Cr), Copper (Cu), Nickel (Ni), Cadmium (Cd), Cobalt (Co), Lead (Pb) and Zinc (Zn).
- Analysis of diatom community structures using methodologies outlined in Taylor et al. (2007).
- The following undertakings are only possible if flow is evident during the sampling periods:
 - Macro-invertebrate sampling will be conducted using the South African Scoring System version 5 (SASS5) methodologies, according to Dickens and Graham (2002), as well as the Macro-invertebrate Response Assessment Index (MIRAI) methodology (Thirion, 2007).
 - Fish assemblage assessment: Sampling will be undertaken using standardised methodologies as per the Fish Response Assessment Index (FRAI), (Kleynhans, 2007). The data collected will be used to determine the PES for the fish assemblage in accordance with FRAI.

9.4.2 Surface Water Impact Assessment

The primary objective of the surface water impact assessment is to develop a simple, feasible, implementable and cost-effective plan for the management of on-site water use for the life cycle of the proposed Block Z project (i.e. operational, decommissioning and closure) taking cognisance of climate change risk for the area.

The surface water assessment will focus on a number of core factors related to surface water management and the impacts on regional water quality and quantity. The following methodology will be applied to the assessment:

9.4.2.1 Desktop Review

A desktop review and gap analysis will be conducted at the outset of the assessment. The desktop review will specifically focus on defining the receiving hydrological environment and associated sensitive receptors. As part of the review, existing information will be reviewed, such as:

- Past EMPRs;
- Mine WUL;
- Current surface water monitoring programme (included in IWWMP);
- Available plans and reports pertaining to existing and proposed Block Z project infrastructure; and
- Catchment detail.

Where gaps are identified in the information, the relevant mine representative will be notified and recommendations put forward in terms of addressing the shortfalls.

9.4.2.2 Field Work

A site walkover will be conducted in order to assess the current regional hydrological regime. Aspects that will be considered during the walkover will include:

- General catchment characteristics (e.g. soils, vegetation, land uses etc.);
- Current state of the drainage channels, streams and rivers (e.g. riparian zone, channel characteristics, channel vegetation etc.);
- Current regional land use practices; and
- Potential impacts of proposed land use practices on the hydrological regime.

Hydrological nodes will be identified during the site walkover and these nodes will be used as points of reference in the surface water assessment. From Google Earth imagery and other available topographical data, it is envisaged that no more than 8 nodes will be required in order to establish the hydrological characteristics and potential impacts of the mine on surface water resources.

Following the desktop review and site walk-over the following assessments and plans will be developed which will accompany the EIR submission.

9.4.3 Hydrological Impact Assessment

Over its lifespan, the proposed Block Z project will result in impacts to both regional water quality and quantity. Information gathered and outcomes of the other specialist studies will be factored into the hydrological impact assessment. The impacts of the proposed Block Z project will be assessed based on the following parameters: severity, duration, extent, frequency and probability. The consequence and likelihood are then used to determine the impact significance based on a rating matrix.

9.4.3.1 Water Quality

The current water quality monitoring programme will be reviewed both in terms of available data and sampling point locations. Based on the available data, the current status of the water quality within the region will be qualified and if gaps are identified in terms of the geographical spread of the sampling points and the determinants measured, recommendations will be made to rectify shortfalls / modify the monitoring programme.

9.4.3.2 Water Quantity

The flow volumes and peak discharges occurring within the area will be altered during the lifespan of the mine as a result of land use change and potential mine dewatering. The changes in peak discharges and flow volumes for the hydrological nodes identified during the site walkover will be modelled and quantified for various milestones in the proposed Block Z project's lifespan. Proposed surface water management practices that are to be implemented by the mine will be factored into the hydrological modelling. A comparative exercise will be conducted on the modelling results in order to quantify the impacts on flow volumes as a result of the changes in land use associated with the mine.

9.4.3.3 Impact Assessment

Expected changes in surface water quality and quantity associated with mining activities and the associated impacts will be qualified. Mitigatory measures will be recommended to reduce the associated impacts to sensitive receptors. Water quality treatment options and solutions will be proposed and the associated high level costs for implementation estimated.

9.4.3.4 Water and Salt Balance

A review of the Water and Salt Balance will be undertaken as part of the assessment in consideration of the Water Balance - Department of Water Affairs Best Practice Guidelines Series G2 of 2006.

The objective of the water balance will be to:

- Aid as a management tool to assist the environmental manager to achieve future objectives associated with water management for the site;
- To quantify the impact of the impacts of the mining activity on the natural environment.

The water balance of the area is sensitive to seasonal changes and climate change. To account for seasonal changes within a water balance, the hydrological years and their division into wet and dry seasons as well as the 5th (dry year) and 95th (wet year) percentile rain would be considered for the lifespan of the mine. Furthermore, the outcomes of the groundwater assessment will be factored into the water balance developed for the proposed Block Z project.

The conceptual water balance will be illustrated by means of a schematic flow diagram which identifies all the process units and flow paths within the boundaries set above.

The following data will be used to populate the schematic flow diagram:

- Expected flow rates;
- Residue and dam volumes;
- Meteorological data that includes rainfall and evaporation; and
- Geo-hydrological data that includes recharge to the mine and expected abstraction in terms of mine dewatering (if required).

The water balance model will be developed over the life of mine and post closure. A water demand versus availability graph will be included.

9.4.3.5 Flood Risk Assessment

Owing to the proposed Block Z project area straddling two water courses, the associated flood risk to proposed mining activities is of concern and mining infrastructure will need to be appropriately placed in relation to the flooding risk. The flood risk assessment will be conducted for the 50- and 100-year storm events for the water courses that pass near the proposed Block Z project area.

In order to accurately assess the flood risk of the area, surveyed plans of the river channel and associated riparian area will be reviewed. Where not available necessary, floodlines will be generated based on Google Earth Imagery (i.e. 1m contour interval) and / or 1:10 000 ortho-photos (i.e. 5 m contour interval). Results obtained from the floodline assessment at this vertical scale will be adequate for planning purposes. The flood risk to the works will factor in the changes of contributing catchment areas and associated changes in flow conditions over the lifespan of the mine.

9.4.3.6 Storm Water Management Plan

- A conceptual storm water management plan (SWMP) will be developed based on the proposed Block Z project layout. The basis of the SWMP will be the reduction of “dirty” storm water generated as well as the prevention of “dirty” water originating on site from passing directly into the adjacent hydrological environment for the entire lifespan of the mine. The approach to the development of the conceptual SWMP will factor in the following:
- Requirements of the DWAF GNR 704 Guideline Document for the Implementation of Regulations on Water Use of Mining and Related Activities Aimed at the Protection of Water Resources;
- DWAF Best Practice Guidelines G1: Stormwater Management (DWAF, 2006); and
- The Water Management for Surface Mines (DWAF, 2008).

These documents support Section 26 of the NWA which regulates any activity that may have an impact on a water resource and the conservation and protection of this water resource. The main principles adopted in these documents for the management of storm water include:

- Confine / divert any unpolluted water to a clean water system, and polluted water to a dirty water system;
- Both clean and dirty water systems should be designed and constructed in such a way so as to prevent cross contamination between the clean and dirty water systems; and
- The clean and dirty water systems should be designed to contain the 50 year storm event, and should not lie within the 1:100 year floodline or within a horizontal distance of 100m from any watercourse.

Based on the mine plan and the associated discretisation of contributing catchments on the mine, discharge volumes for various storm events will be modelled and quantified, and from the results obtained, the required infrastructure (i.e. drainage channels, retention facilities, etc.) will be determined.

9.4.4 Hydrogeological Impact Assessment

The following will be undertaken in an effort to determine if the proposed Block Z project will impact on the groundwater reserves of the proposed Block Z project area:

- Perform a detailed hydro census of the study area, including a 1km radius around the total site. All existing hydrogeological boreholes will be sampled, as well as all external users' boreholes;
- The specialist will obtain six samples from the current monitoring network and an addition eight samples from external users;
- All samples will be analysed for a full spectrum of macro-constituents and selected micro constituents;
- The proposed six additional boreholes will be sited and drilled will be sampled. In total, 20 samples will be taken for the assessment. These boreholes are required to quantify the impact of combined mining of Block Z and Isibonelo on the dewatering of river systems;
- The results will be supplemented with data from the current monitoring system;

- Samples will be obtained from all geological units and submitted to ABA;
- A full geochemical leach will be performed on one coal sample for a minimum period of 13 weeks to determine the quality of the water following infiltration through the coal seam;
- Geochemist Workbench will be used to perform a series of geochemical modelling scenarios. This will be undertaken for the total Isibonelo pit complex;
- Modelling software will be used to simulate the potential for river interaction (on the western boundary). The model will predict the potential impact of dewatering and flooding on the adjacent surface water features. However, the model will not be expanded to include the total pit complex, but will focus on the proposed Block Z project related impacts;
- The regional and local baseline conditions for the new pit system will be determined to reflect aquifer parameters, ground water quality distribution, ground water yields, impact on aquifer systems, etc;
- Compile a stand-alone ground water balance for the proposed Block Z project, and update the mine wide water balance to reflect the change in the total Isibonelo pit layout. Annualised water make-up, storage capacities and recharge rates will be calculated and provided to Isibonelo Colliery for inclusion in the overall water balance; and
- An Impact assessment will be performed using the Anglo Thermal Coal impact assessment methodology.

9.4.5 Soils and Land Capability Impact Assessment

Earth Science Solutions will undertake the following in order to determine the impact on the soil and land capability of the proposed Block Z project:

- The investigation will concentrate on the updating of any existing baseline information and the re-assessment of the area that is proposed for the project;
- The assessment will determine the status of the natural soils in terms of their chemical and physical properties; and
- A detailed survey of the proposed mining activities that will impact on the materials and their natural ability and capabilities, as well as recommending a rehabilitation and soil utilisation plan for the areas that may be impacted;

The studies will employ the following systems and classifications:

- The taxonomic soil classification system to characterise and classify the soils of the overall area.
- The SA Chamber of Mines methodology for assessing land capability.

The following methodology will be applied to the soils and land capability assessment in order to determine the impact of the proposed Block Z project:

9.4.5.1 Baseline Assessment

A desktop study will be undertaken which takes into account existing pedological information and any additional information (geological and / or geotechnical) that may be available.

9.4.5.2 Walk Over

A site investigation will be undertaken to determine where the areas of concern are located and to characterise and map the soils and rate the land capability of the study area.

The methodologies applied to the soil (Pedology) and the land capability assessments are separated for ease of reference. The pedological assessment methodology is provided below and the land capability assessment will follow.

9.4.5.3 Pedological Study

A Pedological Study will be undertaken in order to achieve the following:

- To characterise the soils of the total area;
- To map the soils in detail and record the baseline conditions that exist pre any development or detailed (BFS) planning; and
- Utilise the information obtained from the soil characterisation in conjunction with the new mining and development plan to assess the impacts and develop a management plan.

In order to acquire the desired information, the following approach will be followed:

- The investigation of the soils will involve the traversing of the areas of concern on a detailed grid base using a conventional 1.5m-bucket auger to expose and characterise the soils (classify and log the soil profile).
- Selected terrain information, topography and any other infield data (geomorphology) of significance and / or relevance to the pedological and land capability investigation will also be recorded and stored in an electronic format (data base), and the information mapped on a recognised Geographic Information System (GIS).
- The identification and classification of the soil profiles will be carried out using the Taxonomic Soil Classification, a System for South Africa (Mac Vicar et al, addition 1991).

The procedure adopted when classifying the soil auger profiles is as follows:

- Demarcate master horizons;
- Identify applicable diagnostic horizons by visually noting the physical properties such as:
 - Depth;
 - Texture;
 - Structure;
 - Mottling;
 - Visible pores;
 - Concretions; and
 - Compaction.

- Determine from (i) and (ii) the appropriate Soil Form; and
- Establish provisionally the most likely Soil Family (pending the outcome of the laboratory tests).

Sampling of representative areas of the differing Soil Forms is carried out and submitted for analysis.

Factors that will be considered in the laboratory include:

- Determination of the pH;
- Exchangeable bases;
- C.E.C. (cation exchange capacity) cmol + / kg;
- Texture (% clay);
- Nutrient status mg / kg; and
- Organic carbon content of topsoil.

9.4.5.4 Land Capability

A land capability study will be undertaken in order to achieve the following:

- The assessment and verification of all / any existing information; and
- Characterisation and rating of the land capability of the total study area.

In order to acquire the desired information, the following approach will be followed:

- The study area will be classified in terms of its land capability according to the soils identified and their physical and chemical characteristics in relation to the other known geomorphological variables (climate, topography, aspect, altitude etc.).
- This information will be captured on a GIS, and mapped using the classification system according to the Chamber of Mines, and the Canadian Land Information System.

The acquired information will be utilised to determine the land capability of the proposed Block Z project area.

9.4.6 Socio-Economic Impact Assessment

The social impact assessment (SIA) process will be undertaken in an effort to determine the impact of the proposed Block Z project on the local and regional socio-economic environment surrounding the proposed Block Z project area.

The SIA will involve the following: collection of primary data, analysis and interpretation of primary and secondary data, and compilation of a report to incorporate the above aspects.

9.4.6.1 Primary Data Collection

During the scoping phase of the S&EIR process, the specialist will undertake interviews with key stakeholders and representatives of potentially affected communities in order to obtain the necessary data and information for the aspects outlined above.

Primary data will be obtained through interviews with key local stakeholders, such as community representatives and local authorities, to obtain an overview of larger communities within a 50km radius of the proposed Block Z project (as this is likely to be the main catchment for labour and area of economic influence of the mine). The smaller local communities, including farmers, local businesses and farm tenants, are likely to be engaged through focus groups and direct interviews, as appropriate.

It is anticipated that interviews with key local stakeholders would serve to enable the project team to:

- Generate an overview of the issues, claims and concerns that interested and affected parties might have with the proposed Block Z project;
- Determine and understand land use systems and practices of the people in and around the study area; and
- Investigate the potential socio-economic impacts as identified.
- Interviews are proposed to be undertaken with key local stakeholders, including:
 - Local authorities (e.g. local and district municipality, ward councillor / s and provincial authorities, as necessary);
 - Local community representatives; and
 - Other local stakeholders, such as local businesses, Community-Based Organisations (CBOs) and Non-Governmental Organisations (NGOs).

The specialist will undertake interviews with key community representatives to establish employment, education and skills levels in the major towns, as well as with farm and mining labour communities within proximity of the site. These interviews, together with discussions with local municipality representatives will also be used to determine the socio-economic needs of the local communities (including farming communities, the colliery and other mining communities in the area), as well as the institutional and community structure analysis.

9.4.6.2 Analysis and Interpretation

Information gathered from the surveys and the stakeholder engagement process which forms part of the S&EIR process, will be collated and analysed to enable the specialist to generate an overview of the perceptions, issues and concerns that stakeholders might have with the proposed Block Z project, and against those captured in the scoping phase.

The social issues will be analysed from the information available. It is envisaged that the issues would be considered in two streams. Firstly, the potential negative issues associated with the proposed Block Z project and associated infrastructure, and secondly, the potential positive issues associated with the development. As such the task would estimate the anticipated negative and positive socio-economic impacts to the various socio-economic groups, and an overview of potential fatal flaws, if any, would be generated.

The following key aspects are likely to be considered during the analysis and interpretation stage:

- Employment and skills development - Existing and required levels and opportunities;
- Health and Safety – Awareness, implications and services;
- Economic implications and opportunities – Regional and national implications and local opportunities;
- Infrastructure and services - Existing and required capacity and quantity, including house, health and recreation;
- Social structures - Community relations and power structures; and
- Social and Labour relations – Implications for Social and Labour Plan.

The economic analysis of the local, regional and national context will make use of the data gathered during the scoping and primary data phases. The aim will be to provide an overview of the economic context and the potential broad economic implications of the mine.

Finally, social sensitivity map / s will be produced, so as to delineate the different areas in terms of social impacts, identifying zones of land use, and the different livelihoods that these land uses support. This will assist with the analysis of potential issues and perceptions, and provide a visual representation of the potential socio-economic impacts.

9.4.6.3 Reporting and Recommendations

A report incorporating the above elements will be produced, including the rating of impacts according to significance (severity), probability, duration, spatial extent and stakeholder sensitivity. The report will make recommendations for mitigation measures to be considered in the design and operation of the proposed mining, for possible inclusion into a management plan (outside of this study).

The report will – based upon issues raised above – identify and evaluate the positive and negative impacts of the alternatives on various groups of affected parties (with and without mitigation). The study will conclude with recommendations in order to reduce anticipated impacts.

9.4.7 Heritage Impact Assessment

A heritage impact assessment (HIA) will be undertaken in order to ensure that the heritage resources in the area be identified and correctly documented. The aim of the HIA study is to assess the presence of archaeological remnants in the proposed Block Z project area which may be negatively impacted upon. The following will be undertaken in order to achieve the assessment objectives:

- Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property via desktop assessment and a site inspection;
- Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
- Describe the possible impact of the proposed Block Z project on these cultural remains, according to a standard set of conventions;

- Propose suitable mitigation measures to minimise possible negative impacts on the cultural resources;
- Recommend suitable mitigation measure should there be any sites of significance that might be impacted upon by the proposed Block Z project; and
- Review applicable legislative requirements.

9.4.8 Air Quality Impact Assessment

The main purpose for conducting the AQIA is to identify key activities that might have significant air quality impacts during the project planning, construction and operational phases. In order to sufficiently understand the possible impact of the proposed Block Z project the following activities will be undertaken:

9.4.8.1 Baseline Air Quality Assessment

The baseline assessment will consist of:

- A site visit to determine the footprint and layout of the proposed Block Z project, as well as any significant surrounding sources of emissions;
- A description of the receiving environment, focusing on sensitive receptors;
- Assessment of the existing air quality situation in the area with the use of ambient monitoring data, if this data is available;

Information gathering, inclusive of but not limited to:

- Baseline climatic and air quality characterisation.
- Existing sources of emissions.
- Existing air quality monitoring data.
- A detailed list of sensitive receptors in the vicinity of the proposed mining operation.

9.4.8.2 Develop of Emission Inventory

A detailed, accurate source emissions inventory is extremely important to produce an accurate dispersion model. The inventory will be developed through the calculation of emissions by mass, source, time period and pollutant. These variables are calculated by using individual emission source information with their associated emission factors, and the respective operational parameters over a determined period of time. These parameters are then used to calculate the total source related emissions at the Isibonelo Colliery, including:

- Calculation of emissions from the proposed Block Z project; and
- Verification of the existing emissions inventory and capturing into an electronic format.

9.4.8.3 Dispersion Modelling

Source inventory data will be used as input for the creation of a dispersion model that demonstrates the impact of emissions associated with the proposed Block Z project to the existing situation.

AERMOD or ADMS 4 will be used to model the proposed Block Z project. Both AERMOD and ADMS 4 are new generation air dispersion models designed for short-range dispersion of airborne pollutants in steady state plumes. Both systems:

- Use hourly sequential meteorological files with pre-processors to generate flow and stability regimes for each hour.
- Produce output maps of plume spread with key isopleths for visual interpretation.

Statistical output of the models allows for direct comparisons with the latest national and international ambient air quality standards for compliance testing.

The model will be setup to compute ambient ground level concentrations based on both long-term (annual / chronic) and short-term (worst-case / acute) averaging periods. Model scenarios will be for cumulative impacts (i.e. where available, background concentrations will be included), such that statistical output will be compared with applicable ambient air quality standards for compliance assessment purposes. Additionally, model predictions will be compared to actual monitored data, where possible.

9.4.8.4 Air Quality Impact Assessment

An AQIA will be required as part of the EIA process to demonstrate the impacts of the proposed operations on the existing air quality situation of the area. The report will include all methodological and technical information required to support the findings, as well as focusing on the potential impacts on the sensitive receptors.

Kindly note, the AQIA will be submitted approximately 6 – 8 weeks after the receipt of the last required information.

9.4.8.5 Development of an Air Quality Management Plan

The AQIA report will also include an air quality management plan (AQMP) that details an emissions management and monitoring plan for key pollutants. Focus will be afforded to the following air pollutants:

- Particulate matter smaller than 10 microns (PM10);
- Dust fallout, and
- Any other pollutants of concern that become evident during the course of the project.

Mitigation recommendations will also be provided for those sources identified as key emitters, where emission reduction strategies should be implemented.

9.4.9 Noise Impact Assessment

The following methodology is proposed in order to successfully carry out the Noise Impact Assessment.

9.4.9.1 Baseline Assessment

The baseline assessment will consist of site orientation, assessment of onsite processes, a site specific literature review regarding associated noise sources, identification of sensitive receptors, a meteorological review and an assessment of the existing noise climate in the region through ambient environmental noise monitoring.

Environmental noise monitoring is used to understand the baseline noise at the proposed Block Z project site. The key focus of such monitoring is to investigate the baseline noise levels at the existing mining operations and surrounding sensitive receptors through:

- Day and night-time noise monitoring conducted using a Casella™ Type 1 integrating noise level meter, with all monitoring being conducted according to SANS 10103:2008 specifications;
- Monitoring locations will be selected in and around the existing mine operations and at surrounding sensitive receptors, with both day and night-time monitoring being conducted at each site;
- Monitoring will be conducted in fifteen minute intervals, with the daytime monitoring period being from 06:00 – 22:00, and the night-time period from 22:00 – 06:00; and
- All monitoring results will be compared with the guideline rating levels as provided in SANS 10103:2008.

9.4.9.2 Noise Inventory

A detailed inventory of all noise sources associated with the proposed reserve swop will be developed and sound pressure levels (SPLs) for each of these proposed sources will be obtained. Sound level data will be sourced from the Noise Navigator™ sound level database (Berger et al., 2010) or from previous experience

and associated research / literature. The sound level database provides sound (pressure) levels of over 1700 occupational and non-occupational noise sources.

9.4.9.3 Environmental Noise Modelling

Environmental noise modelling will be conducted using the internationally accredited noise modelling software, CadnaA (Computer Aided Noise Abatement). The CadnaA software provides an integrated environment for noise predictions under varying scenarios and calculates the cumulative effects of various sources. The model uses ground elevations in the calculation of the noise levels in a grid and uses meteorological parameters that have an effect on the propagation of noise. CadnaA has been utilised in many countries across the globe for the modelling of environmental noise and town planning. It is comprehensive software for 3-dimensional calculations, presentation, assessment and prediction of environmental noise emitted from industrial plants, parking lots, roads, railway schemes or entire towns and urbanized areas.

The noise source inventory detailed above will be utilised as input for the CadnaA model. Gridded outputs from CadnaA will then be input into ArcGIS to provide a visual representation (isopleth output) of noise levels throughout the region. The noise contribution of the proposed Block Z project to the existing noise levels will be calculated, with comparisons being made to relevant national guidelines.

9.4.9.4 Noise Impact Assessment

A detailed environmental noise impact assessment report will be provided detailing the findings of the baseline assessment, ambient environmental noise monitoring, acoustic modelling results and impacts, as well as detailed recommendations, including mitigation measures if deemed necessary.

9.4.10 Blasting and Vibration Assessment

In order to complete the blasting and vibration assessment the following actions will be undertaken by the specialist:

- Conduct a site visit to understand the structure profile of the proposed Block Z project. During the site visit structures and installations that are found in within a 3500m radius from the proposed Block Z project area will be focused upon;
- Obtain all relevant data and information on proposed mining methods and methodology; and
- Modelling the expected impact based on planned drilling and blasting information for the proposed Block Z project. Various accepted mathematical equations are applied to determine the attenuation of ground vibration, air blast and fly rock. These values are calculated over distance from proposed Block Z project site and shown as amplitude level contours. Overlay of these contours with the location of the various receptors then give indication of the possible impact and expected result of potential impact. Evaluation of each receptor according to the predicted levels will indicate level of possible influence and required mitigation if necessary. The possible environmental or social impacts will be addressed in the EIR phase.

9.4.11 Block Z project Programme for the EIA

The programme for the S&EIR suggests the following timeframes with respect to the most important activities to be undertaken:

- | | | |
|--|---|-------------------------|
| ■ Submission of the Draft WULA for public comment | – | October / November 2014 |
| ■ Submission of the Draft EIR / EMP for public comment | – | October 2014 |
| ■ Public meetings | – | October r 2014 |
| ■ Submission of the Final EIR / EMP and WLR for authority review | – | December 2014 |

The S&EIR process is iterative by nature and it should therefore be appreciated that the above dates are provided as guidance only and are subject to change.

9.5 Conclusions and Recommendations

This plan of study for EIR phase is aimed at meeting the requirements of GNR 543 and the guidelines issued in respect thereof as a minimum. The methodologies proposed for obtaining the information required to effectively identify and assess the potential environmental impacts of the project are considered to be comprehensive and sufficient to allow for the compilation of an EIR / EMPR which addresses stakeholder concerns and which will provide the competent authority with the appropriate information necessary to allow for informed decision-making on the application for authorisation.

10 Way Forward

This FSR contains:

- A description of the existing and proposed activities;
- A description of the alternatives considered to date;
- An outline of the proposed process to be followed;
- Information on the proponent, EAP and stakeholders who have chosen to participate in the project;
- An outline of the environment in which the projects fall;
- Information on the potential environmental impacts to be studied in more detail during the EIR phase of the project; and
- Information on the proposed specialist studies to be undertaken.

Based on the desktop studies undertaken to date, no environmental fatal flaws have been identified at this stage of the process that would prohibit the proposed Block Z project from continuing. However, a number of potential environmental impacts have been identified and require more in-depth investigation and the identification of detailed mitigation measures. Therefore, a detailed EIR is required to be undertaken in order to provide an assessment of these potential impacts and recommend appropriate mitigation measures, where required.

The recommendation of this report is that detailed specialist studies are undertaken on the proposed site and the no-go alternative. The scope of work required in the EIR phase of the project is included in the PoS for EIA (**Section 10**).

Following the public review of the DSR, comments received were included into an comments and response table and the report updated as appropriate. This FSR has been submitted to the delegated competent authorities responsible for authorising this project, in this case the MDEDET, DEA and the DMR, who will consider the findings in consultation with various other authorities and issue a decision to proceed onto the next phase, that being the EIR phase.

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Appendix A – Competent Authority Communication

MPUMALANGA PROVINCIAL GOVERNMENT

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Department of Economic Development, Environment and Tourism

Litiko Letekutfufukiswa
Kwetemnotfo, Simondzwo netekuVakasha

Umgango WezokuThuthukiswa
KoMnotho, iBhoduluko nezamaVakatjho

Departement van Ekonomiese
Ontwikkeling, Omgewing en Toerisme

Enquiries: Selape Lentswana, Cnr Rosmead & Ryna Str, Klipfontein Witbank, 1035, Tel: 013 692 7934
Email: lsmatawana@mpg.gov.za
Reference: 17/2/3N-362

Attn: Janna Bedford-Owen
WSP Environmental (Pty) Ltd.
WSP House
199 Bryanston Drive
2191

Fax no: 086 566 6336

086 5566 336

Dear Madam,

APPLICATION FOR ENVIRONMENTAL AUTHORISATION: THE PROPOSED MINING OF THE BLOCK Z AREA BY ANGLO AMERICAN THERMINAL COAL ON PORTION 21 OF FARM ONVERWACHT 70 IS, ISIBONELO COLLIERY WITHIN EMALAHLENI LOCAL MUNICIPALITY.

The Department confirms having received the application form for environmental authorisation of the abovementioned project on 16 May 2014. The application is hereby accepted, and you may proceed with Scoping Report process required in terms of the Environmental Impact Assessment Regulations, 2010.

The application has been assigned the reference number **17/2/3N-362**. Kindly quote this reference number in any future correspondence in respect of the application and in all methods of notification used during the public participation process.

The responsible officer is **Selape Lentswana** and all correspondence must be directed to: The Deputy Director, Environmental Impact Management, Nkangala District Office, marked for the attention of the responsible officer.

Please note that in terms of the provisions of Regulation 67, this application will lapse if the applicant fails for a period of 6 months to comply with a requirement of the EIA Regulations, 2010, or if reasons for failure to comply are not communicated in writing to and accepted by this Department.

Please draw the applicant's attention to the fact that the activity may not commence prior to an environmental authorisation being granted by the Department.

Yours faithfully

DATE: 2014/05/27

**MS. DINEO TSWAI
DEPUTY DIRECTOR**

MPUMALANGA PROVINCIAL GOVERNMENT

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Department of Economic Development, Environment and Tourism

Litiko Letekutfutukiswa
Kwctemnofo, Simondzwo netekuVakasha

Umngango WezokuThuthukiswa
KoMnotho, iBhoduluko nezamaVakatjho

Departement van Ekonomiese
Ontwikkeling, Omgewing en Toerisme

Enquiries: Selape Lentswana, Cnr Rosmead & Ryna Str, Klipfontein Witbank, 1035, Tel: 013 692 7934
Email: ismatawane@mpg.gov.za
Reference: 17/2/3N-362

Attn: Janna Bedford-Owen
WSP Environmental (Pty) Ltd.
WSP House
199 Bryanston Drive
2191

Fax no: 086 556 6336

Dear Sir.

RE: COMMENTS WITH REGARD TO THE DRAFT SCOPING REPORT FOR THE PROPOSED MINING OF THE BLOCK Z AREA BY ANGLO AMERICAN THERMAL COAL ON PORTION 21 OF FARM ONVERNWATCHT 70 IS, ISIBONELO COLLIERY WITHIN EMALAHLENI LOCAL MUNICIPALITY, MPUMALANGA PROVINCE.

The department has the following comments on the project to mitigate against any possible significant impacts.

If wetlands are found on the study area (in terms of water bodies or catchment resources), a wetland delineation report must be compiled to satisfy the types of wetlands found in the drainage.

If any destruction happens on stream flow, surface run off, catchments and other water resources, the Department of Water Affairs national, must be consulted in terms of licensing, considering Section 21 (c) (h) (i) (j) and (g) of the National Water Act.

No construction should occur within 32m of a watercourse, excluding where such construction will occur behind the development setback line.

The applicant is responsible for compliance with the provisions for "Duty of Care" and remediation of damage contained in Section 28 of the National Environmental Management Act.

Yours truly,



Dineo Tswai
Deputy Director
Environmental Impact Management

2014/09/11
Date

Bedford-Owen, Janna

From: Hussain, Zaffar
Sent: 27 February 2014 01:39 PM
To: dtswai@mpg.gov.za; dtswai@wit.mpu.gov.za
Cc: Bedford-Owen, Janna
Subject: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority Meeting

Good Afternoon Dineo,

WSP has been appointed to undertake the Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) Authorisation process for the Proposed New Block Z Open Cast Pit (referred to as Block Z) adjacent to the current Isibonelo Colliery Open Cast Mine (Mpumalanga).

The proposed project will require environmental authorisation via a Scoping & Environmental Impact Assessment (S&EIA) process as well as a potential Water Use License Application (WULA) in terms of the National Environmental Management Act (No. 107 of 1998) as amended (NEMA) and the National Water Act (No. 36 of 1998) (NWA) respectively. An Environmental Management Programme Report (EMPR) amendment in terms of the Mineral Petroleum Resources Development Act (No. 28 of 2002) (MPRDA) will also be required.

As such, WSP is proposing a pre-application authorities meeting with the relevant competent authorities including the Department of Mineral Resources, the Department of Water Affairs, and the Mpumalanga Department of Economic Development Environment and Tourism in order to present Block Z and verify the proposed way forward. The draft agenda includes:

- Background to the proposed Block Z
- WSP and Isibonelo Colliery team introductions
- Present the process and way forward
- Confirm information and reporting / submission requirements
- Define roles and responsibilities for the proposed project
- Visit the Block Z site

The meeting will be held at the Isibonelo Colliery offices (just south of Kriel, Mpumalanga). Please will you indicate which of the dates proposed below is best suitable for you to attend the aforementioned meeting/site visit:

- 12 March 2014 or
- 13 March 2014

I have discussed the above with Charity Mnthimunye and am aware of her capacity constraints in terms of attending this initiation meeting. We feel that this meeting is vital to ensure the smooth running of the integrated authorisation process for the proposed project. Could you please indicate if anyone else in your department has the capacity to attend?

Your assistance in this regard is greatly appreciated.

Kind Regards,

Zaffar Hussain
Environmental Consultant



WSP, Environment & Energy, Africa

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WSP Environmental (Pty) Ltd, Registered Office: WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa Registered Number: 1999/008928/07 South Africa

From: Hussain, Zaffar
Sent: 17 February 2014 04:54 PM
To: mmseshweni@mpg.gov.za
Cc: Bedford-Owen, Janna
Subject: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority

Good Afternoon Martha,

As discussed earlier (17/02/2014, 11h30), WSP has been appointed to undertake the Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) Authorisation process for the Proposed New Block Z Open Cast Pit (referred to as Block Z) adjacent to the current Isibonelo Colliery Open Cast Mine (Mpumalanga).

In terms of the National Environmental Management Act (No. 107 of 1998) as amended (NEMA), and the National Water Act (No. 36 of 1998) (NWA) the proposed SWDC will require the completion of a basic assessment (BA) and water use license application (WULA) as it crosses a non-perennial stream. However, in terms of the Mineral Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), the Environmental Management Programme Report (EMPR) is required to be amended.

As such, WSP is proposing a pre-application authorities meeting with the relevant competent authorities including the Department of Mineral Resources, the Department of Water Affairs, and the Mpumalanga Department of Economic Development Environment and Tourism in order to present Block Z and verify the proposed way forward.

The draft agenda includes:

- Background to the proposed Block Z
- WSP and Isibonelo Colliery team introductions
- Present the process and way forward
- Confirm information and reporting / submission requirements
- Define roles and responsibilities for the proposed project
- Visit the Block Z site

The meeting will be held at the Isibonelo Colliery offices (just south of Kriel, Mpumalanga). Please will you indicate which of the dates proposed below is best suitable for you to attend the aforementioned meeting/site visit:

- 27 February 2014 or
- 3 March 2014



Zaffar Hussain
Environmental Consultant

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Bedford-Owen, Janna

From: Bedford-Owen, Janna
Sent: 16 April 2014 08:04 AM
To: 'Fhatuwani.Muronga@dmr.gov.za'
Cc: Holme, Brent (Brent.Holme@WSPGroup.co.za); Hussain, Zaffar
Subject: FW: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority Meeting
Attachments: AATC - Isibonelo Colliery - Block Z Notification Letter

Good day Fhatu,

In preparation for today's meeting at 10, please find attached herewith the email and letter sent to the DMR (Bethuel Matodzi) previously.

Kind Regards,

Janna Bedford-Owen
Senior Environmental and Sustainability Consultant

WSP, Environment & Energy, Africa

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From: Hussain, Zaffar
Sent: 17 February 2014 04:52 PM
To: bethuel.matodzi@dmr.gov.za
Cc: Bedford-Owen, Janna
Subject: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority Meeting

Good Afternoon Bethuel,

As discussed earlier (17/02/2014, 10h00), WSP has been appointed to undertake the Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) Authorisation process for the Proposed New Block Z Open Cast Pit (referred to as Block Z) adjacent to the current Isibonelo Colliery Open Cast Mine (Mpumalanga).

In terms of the National Environmental Management Act (No. 107 of 1998) as amended (NEMA), and the National Water Act (No. 36 of 1998) (NWA) the proposed SWDC will require the completion of a basic assessment (BA) and water use license application (WULA) as it crosses a non-perennial stream. However, in terms of the Mineral Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), the Environmental Management Programme Report (EMPR) is required to be amended.

As such, WSP is proposing a pre-application authorities meeting with the relevant competent authorities including the Department of Mineral Resources, the Department of Water Affairs, and the Mpumalanga Department of Economic Development Environment and Tourism in order to present Block Z and verify the proposed way forward. The draft agenda includes:

- Background to the proposed Block Z
- WSP and Isibonelo Colliery team introductions
- Present the process and way forward
- Confirm information and reporting / submission requirements
- Define roles and responsibilities for the proposed project
- Visit the Block Z site

The meeting will be held at the Isibonelo Colliery offices (just south of Kriel, Mpumalanga). Please will you indicate which of the dates proposed below is best suitable for you to attend the aforementioned meeting/site visit:

- 27 February 2014 or
- 3 March 2014



Zaffar Hussain
Environmental Consultant

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Bedford-Owen, Janna

From: Bedford-Owen, Janna
Sent: 10 September 2014 04:46 PM
To: Bethuel.Matodzi@dmr.gov.za; 'Fhatuwani Muronga'
Cc: O'Brien, Jared; terry.harck@solutionhplus.com; Steyn, Kevin
Subject: 39664 - Isibonelo Colliery - Block Z Scoping Report

Importance: High

Good day Bethuel/Fhatu,

This email serves as confirmation of the discussions held between Jared O'Brien and Fhatu Muronga this afternoon.

It was confirmed that the case officer from the Department of Mineral Resources (DMR) assigned to this project is Mr Bethuel Matodzi with the assistance of Fhatu Muronga where necessary. It was further confirmed that a scoping report template does not exist for a Section 102 Amendment process, and that the DMR is willing to process a Final Scoping Report (in a WSP template/report format) provided the requirements of NEMA and the MPRDA have been met.

WSP will be submitting the Final Scoping Report for the Block Z project during the week of 15 September 2014 and would greatly appreciate confirmation of receipt from the DMR.

If we do not receive a response, it will be assumed the above is correct and all parties are happy with the approach and submission. If however, you have any concerns regarding the above, please do not hesitate to contact me.

Kind Regards,

Janna Bedford-Owen
Senior Environmental and Sustainability Consultant



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Bedford-Owen, Janna

From: Bedford-Owen, Janna
Sent: 10 September 2014 04:46 PM
To: Bethuel.Matodzi@dmr.gov.za; 'Fhatuwani Muronga'
Cc: O'Brien, Jared; terry.harck@solutionhplus.com; Steyn, Kevin
Subject: 39664 - Isibonelo Colliery - Block Z Scoping Report

Importance: High

Good day Bethuel/Fhatu,

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Kind Regards,

Janna Bedford-Owen
Senior Environmental and Sustainability Consultant



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From: Hussain, Zaffar
Sent: 17 February 2014 04:52 PM
To: bethuel.matodzi@dmr.gov.za
Cc: Bedford-Owen, Janna
Subject: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority Meeting

Good Afternoon Bethuel,

As discussed earlier (17/02/2014, 10h00), WSP has been appointed to undertake the Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) Authorisation process for the Proposed New Block Z Open Cast Pit (referred to as Block Z) adjacent to the current Isibonelo Colliery Open Cast Mine (Mpumalanga).

In terms of the National Environmental Management Act (No. 107 of 1998) as amended (NEMA), and the National Water Act (No. 36 of 1998) (NWA) the proposed SWDC will require the completion of a basic assessment (BA) and water use license application (WULA) as it crosses a non-perennial stream. However, in terms of the Mineral Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), the Environmental Management Programme Report (EMPR) is required to be amended.

As such, WSP is proposing a pre-application authorities meeting with the relevant competent authorities including the Department of Mineral Resources, the Department of Water Affairs, and the Mpumalanga Department of Economic Development Environment and Tourism in order to present Block Z and verify the proposed way forward.

The draft agenda includes:

- Background to the proposed Block Z
- WSP and Isibonelo Colliery team introductions
- Present the process and way forward
- Confirm information and reporting / submission requirements
- Define roles and responsibilities for the proposed project
- Visit the Block Z site

The meeting will be held at the Isibonelo Colliery offices (just south of Kriel, Mpumalanga). Please will you indicate which of the dates proposed below is best suitable for you to attend the aforementioned meeting/site visit:

- 27 February 2014 or
- 3 March 2014



Zaffar Hussain
Environmental Consultant

WSP, Environment & Energy, Africa
WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
Tel: +27 11 361 1387
Mob:
Fax: +27 11 361 1381

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MEETING NOTES



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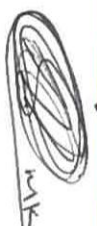




Project Title	
Date	16/04/2014
Time	10h00-11h30
Venue	Mpumalanga DMR Offices
Subject	Authority Initiation Meeting
Present	<p><u>WSP</u> Janna Bedford-Owen (JBO) Terry Harck (TH) Zaffar Hussain (ZH)</p> <p><u>Isibonelo Colliery</u> Kenneth Mokoena (KM) Kevin Steyn (KS)</p> <p><u>DMR</u> Fhatuwani Muronga (FM) Oscar Mavundza (OM)</p>
Apologies	Dirk Miller (DM)
Attachments	Attendance Register


MATTERS ARISING		ACTION
Welcome and Team Introductions		
JBO	<p>JBO introduced all attendees (Appendix A) to the meeting and proceeded to present the proposed project details (refer to Appendix B for a copy of the presentation).</p> <p>The following was discussed in detail and comments that were raised during the meeting are recorded in Section 2:</p> <ul style="list-style-type: none"> ■ Purpose of the meeting ■ Introduction of the project team ■ Project location ■ Project background and description ■ Authorisation process to be followed ■ Proposed schedule ■ Way forward 	
Matters Discussed		

MATTERS ARISING		ACTION
OM	<p>OM noted that because the Block Z area is currently held by Kriel Colliery (KC), two section 102 applications are required. OM stated that IC is required to submit a section 102 application simultaneously with KC which is required to submit a 102 application to abandon the Block Z area. OM noted that the following submissions are required from IC:</p> <ul style="list-style-type: none"> ■ Online Section 102 Application ■ Hardcopy application detailing the Block Z project (in WSP format) (marked for attention FM and OM) ■ Scoping Report (6 copies) ■ Amended EMPR (6 copies) ■ Sketch Plan (2 Copies) ■ Mine Works Plan (3 copies) ■ Social and Labour Plan (SLP) to be resubmitted with a cover letter noting that no changes to the previously approved SLP has been made. Note and include proof of how the Broad Based Black Economic Empowerment (BBBEE) has not been affected by the swap. (3 copies) <p>OM noted that the Following submissions are required from KC:</p> <ul style="list-style-type: none"> ■ Online Section 102 Application to abandon the Block Z area ■ Hardcopy Application including motivation as to why Block Z is being abandoned. ■ Mine Works Plan (indicating exclusion of Block Z) ■ SLP (indicating exclusion of Block Z) ■ Sketch Plan (indicating exclusion of Block Z) 	
JBO	JBO enquired as to whether technical information is to be submitted within a specific template. FM replied that he would forward through the closure liability template to ZH.	
JBO	JBO queried whether the eMPR is to be submitted in a specific format? FM replied that there isn't one.	
FM	FM enquired what the difference between the Draft EMPR and Final EMPR is likely to be. JBO replied that apart from amendments as per authority comments, the difference will be that the Final EMPR will include stakeholder comments.	
JBO	JBO requested that the process to obtain a DMR reference number be explained. FM replied that the online section 102 application will generate a reference number, however the current IC Mining Right number can be used on the public participation material.	
JBO	JBO thanked all present for attending and closed the meeting.	
Close Meeting		
JBO	JBO thanked all present for attending and closed the meeting.	
Distribution: All Present		

DMR Project Initiation Meeting/16 April 2014

PROPOSED BLOCK Z OPENCAST PIT ATTENDANCE REGISTER

Name	Company	Designation	Contact details (Tel/Fax/Email)	Signature
Kevin Steyn	Isibonelo Mine	Mining Manager	Tel: 017-6202701 Fax: Email: kevin.steyn@angloamerican.com Tel: 017 620 2714 Fax:	
Kenneth Mokoena	Isibonelo	Env. Coord	Email: kenneth.mokoena@angloamerican.com Tel: 013 653 0566 Fax:	
Flatuswazi Muroga	DMR	Environmental Officer	Email: flatuswazi.muroga@dmr.gov.za Tel: 011 361 1387 Fax:	
Zaffar Hussain	WSP	Consultant	Email: zaffar.hussain@wspgroup.co.za Tel: 083 521 3711 Fax:	
TERRY HARER	"	"	Email: terry.harer@wspgroup.co.za Tel: 011 371 1341 Fax:	
Jona Bedford-Am	WSP	"	Email: jona.bedford-am@wspgroup.co.za Fax:	

Name	Company	Designation	Contact details (Tel/Fax/Email)				Signature
Mavutza Oscar	DMR	AD:Mineral laws	Tel: 013 6530500				
			Fax: 086 710 1081				
			Email:				
			Tel:				
			Fax:				
			Email:				
			Tel:				
			Fax:				
			Email:				
			Tel:				
			Fax:				
			Email:				

Your ref: Isibonelo Colliery: Proposed Block Z Project
Our ref: 39664



26 March 2014

Att: Mr. B Matodzi
Mpumalanga Department of Mineral Resources
Receiver of Revenue Building
Cnr of Paul Kruger & Botha Street
Witbank
1035

Dear Mr Matodzi,

LETTER OF NOTIFICATION: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

WSP Environmental (Pty) Ltd (WSP) has been appointed by Anglo American Thermal Coal (AATC): Isibonelo Colliery (IC) to undertake the Scoping and Environmental Impact Reporting (S&EIR) for the proposed Block Z opencast coal mine. IC is situated in the Mpumalanga Province between the towns of Kinross, Secunda, Bethal and Kriel near the northern margin of the Highveld coalfield of the Mpumalanga Province.

According to the Mineral and Petroleum Resources Development Act (No. 20 of 2002) (MPRDA), Isibonelo Colliery are required to undergo an environmental management programme report (EMPR) amendment process as well as submit a mining right amendment application to the Mpumalanga Department of Mineral Resources.

Further to the above, WSP proposes to undertake an environmental authorisation and water use licence processes in accordance with the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended, and the National Water Act (No. 36 of 1998) respectively.

This letter serves to notify the DMR of the commencement of the EMPR amendment process and mining rights amendment application for the proposed Block Z project and to request confirmation of the registration reference number with the DMR. It is anticipated that the Scoping Report will be submitted to the DMR in June 2014.

Should you have any issues or queries, please do not hesitate to contact the undersigned.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Janna Bedford Owen'.

Janna Bedford Owen
Senior Consultant
Tel: +27 11 361 1371
Fax: +27 86 55 66 336
Email: janna.bedford-owen@wspgroup.co.za

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<http://www.wspenvironmental.co.za>
Reg. No: 1995/08790/07

WSP Group plc
Offices worldwide

Bedford-Owen, Janna

From: Hussain, Zaffar
Sent: 17 February 2014 04:56 PM
To: MonyelaP@dwa.gov.za
Cc: Bedford-Owen, Janna
Subject: Proposed New Block Z Open Cast Pit; Isibonelo Colliery - Pre-Application Authority

Good Afternoon Pinky,

As discussed earlier (17/02/2014, 13h00), WSP has been appointed to undertake the Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) Authorisation process for the Proposed New Block Z Open Cast Pit (referred to as Block Z) adjacent to the current Isibonelo Colliery Open Cast Mine (Mpumalanga).

In terms of the National Environmental Management Act (No. 107 of 1998) as amended (NEMA), and the National Water Act (No. 36 of 1998) (NWA) the proposed SWDC will require the completion of a basic assessment (BA) and water use license application (WULA) as it crosses a non-perennial stream. However, in terms of the Mineral Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), the Environmental Management Programme Report (EMPR) is required to be amended.

As such, WSP is proposing a pre-application authorities meeting with the relevant competent authorities including the Department of Mineral Resources, the Department of Water Affairs, and the Mpumalanga Department of Economic Development Environment and Tourism in order to present Block Z and verify the proposed way forward.

The draft agenda includes:

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- WSP and Isibonelo Colliery team introductions
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- Define roles and responsibilities for the proposed project
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The meeting will be held at the Isibonelo Colliery offices (just south of Kriel, Mpumalanga). Please will you indicate which of the dates proposed below is best suitable for you to attend the aforementioned meeting/site visit:

- 27 February 2014 or
- 3 March 2014



Zaffar Hussain
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MEETING NOTES



Job Title	Isibonelo Colliery Block Z Project
Project Number	39664
Date	24 April 2014
Time	10h00 – 11h00
Venue	Department of Water Affairs Offices - Bronkhorstspuit
Subject	Department of Water Affairs Initiation Meeting and Water Use License Discussion
Client	Anglo Operations Limited: Isibonelo Colliery Kenneth Mokoena (Isibonelo Colliery), Pinky Monyela (Department of Water Affairs), Zaffar Hussain (WSP) and Brent Holme (WSP)
Present	Refer to Appendix A for the Attendance Register
Apologies	Janna Bedford-Owen

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Discussion Points

1 Department of Water Affairs Meeting

Zaffar Hussain (ZH) from WSP Environment and Energy (WSP) introduced all attendees (**Appendix A**) to the meeting and proceeded to present the proposed project details (refer to **Appendix B** for a copy of the presentation).

The following was discussed in detail and comments that were raised during the meeting are recorded in Section 2:

- Purpose of the meeting
- Introduction of the project team
- Project location
- Project background and description
- Authorisation process to be followed (including requirement for a Water Use License Application)
- Proposed schedule
- Way forward

2 Comments Recorded

- Pinky Monyela (PM) requested clarity regarding to the location of the proposed Block Z and if the proposed mining area is located adjacent to Kriel Pit 4. Kenneth Mokoena (MK) confirmed this.
- PM requested what additional infrastructure would be installed/ constructed to transport the coal from the proposed Block Z to Sasol's Synthetic Fuel plant in Secunda. ZH and KM noted that no additional infrastructure such as conveyor systems will be constructed.
- Brent Holme (BH) enquired to how many copies of the documents (scoping report and environmental impact report) would the Department require. PM indicated that one hard copy of the reports should be sufficient as other government departments such as the Department of Mineral Resources will also provide the Department with a copy of the report for comment.
- ZH requested if PM's contact details were correct (as per the presentation). PM indicated that they were correct and that she would be the primary point of contact at the Department for the project.

- A discussion pertaining to the WULA was held:
 - ZH indicated that no Section 21C¹ or 21I² WULA are anticipated as the proposed project is located further than 500m from the Dwars-in-die-Wegspruit and associated wetlands. Natural Scientific Services (NSS) has been appointed to undertake a wetland assessment and delineation which will confirm this statement.
 - It was noted that the pollution control dam (PCD) for which the pit water from Block Z will be pumped to is lawful and a Section 21G³ WULA has been awarded to Isibonelo Colliery for the storage of a specific volume of water. PM indicated that an updated water balance will need to be compiled in order to adequately calculate the additional water that will be received by the PCD. Should this volume exceed the permitted capacity, a Section 21G WULA may need to be applied.
 - PM indicated that a Section 21G WULA would be required if additional water from the PCD dam will be used for dust suppression activities. BH indicated that an updated water balance (including water used for dust suppression) will need to be compiled before this could be confirmed.
 - PM noted that a Section 21J⁴ WULA will be required for the removal of pit water from the proposed Block Z Pit which will be discharged into the existing, lawful PCD. This was understood and the relevant application forms, documents and reports will be submitted as part of the WULA (i.e. Integrated Water and Waste Management Plan, Section 27 Motivation and the updated water balance).
 - PM indicated that the stakeholder material must make reference to the intention to apply for the relevant WULA's and make reference to the National Water Act (No. 36 of 1998). Furthermore, it was noted that reference to the WULA's must be raised during the relevant public meetings. This was noted and agreed by WSP.
 - ZH enquired as to timeframes surrounding the WULA. PM indicated that the Department does not have timeframes, however, will ensure the timeous appraisal of the WULA.
 - PM indicated that she would make available a groundwater checklist which the Department uses when assessing WULAs in order to assist with the WULA process. This will be forwarded to WSP when the Department's internet connections have been repaired.

3 Close Out

BH indicated that an additional meeting will be requested with the Department prior to the submission of the WULA documentation to ensure all relevant documents have been correctly completed to which PM agreed.

ZH thanked PM for making herself and the project team available for the meeting and called the meeting closed.

¹ Section 21C: Impeding or diverting the flow of water in a watercourse

² Section 21I: Altering the bed, banks, course or characteristics of a watercourse





³ Section 21G: disposing of waste in a manner which may detrimentally impact on a water resource

⁴ Section 21J: 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

Appendix A: Attendance Register

DWA Project Initiation Meeting/24 April 2014

PROPOSED BLOCK Z OPENCAST PIT ATTENDANCE REGISTER

Name	Company	Designation	Contact details (Tel/Fax/Email)	Signature
Brent Holme	WSP	consultant	Tel: 011 3611389 Fax: 086 532 8685 Email: brent.holme@wspgroup.co.za	
Zaffar Hussain	WSP	Consultant	Tel: 011 361 1387 Fax: Email: zaffar.hussain@wspgroup.co.za	
Kenneth Mokoena	Isibonelo	Env. Coord	Email: kenneth.mokoena@angloamericain Tel: 013 932 2061 Fax: 013 932 2071	
Pinky Mongela	DWA	Environmenta) Officer	Email: mongelap@dwa.gov.za Tel: Fax: Email:	
			Tel: Fax: Email:	

Appendix B: Authority Presentation

Anglo Operations Limited: Isibonelo Colliery
Environmental Authorisation Process

11 June 2014

Block Z EIA and EMPR
Department of Water Affairs
Meeting

www.wspenvironmental.co.za



Agenda

1. Purpose of Meeting
2. Introduction to Project Team
3. Project Location
4. Project Background
5. Authorisation Process
6. Water Use License Application
7. Offset Options
8. Way Forward



1. Purpose of the Meeting

- Introduce the proposed Block Z Open Cast Pit and the Project Team
- Provide project background and mining status quo
- Verify the competent authority representative(s) & define roles and responsibilities
- Confirm the proposed way forward in terms of legislative processes, and reporting, stakeholder engagement, technical information requirements, and Mining Right Application
- Propose a process schedule



2. Project Team

- Proponent: Anglo Operations (Pty) Ltd: Isibonelo Colliery

Designation	Environmental Co-ordinator	Mine Manager
Contact Person:	Mr Kenneth Mokoena	Mr Dirk Miller
Telephone:	017 620 2714	017 620 2700
Fax:	017 620 2759	017 620 2759
E-mail:	Kenneth.mokoena@angloamerica n.com	Dirk.miller@angloamerican.c om

- EAP: WSP Environmental (Pty) Ltd

Designation	EAP 1: Project Manager	EAP 2: Project Consultant
Contact Person:	Ms Janna Bedford-Owen	Mr Zafar Hussain
Telephone:	011 361 1371	011 361 1387
Fax:	086 55 66 336	011 361 1381
E-mail:	Janna.Bedford- Owen@wspgroup.co.za	ZafarHussain@wspgroup.co .za



3. Background

- Isibonelo Colliery was established as an opencast operation to supply Sasol's Synthetic Fuel (SSF) plant located in Secunda.
- IC is situated approximately 60 km south of Witbank and 8 km south of the town of Kriel in the Mpumalanga Province; more specifically it is located between the towns of Kinross, Secunda, Bethal and Kriel. The area falls within the Nkangala District Municipality and the Emalahleni Local Municipality.
- Only the No 4 seam is presently considered to be economically viable, with an average opencast depth of 40 m and a thickness of 5,6 m.
- Isibonelo Colliery primarily utilises the dragline strip-mining method as a means of coal removal from the coal seams.
- The extracted coal is delivered to the primary in-pit sizing plant, transferred via surface conveyor to a surge bunker at Syferfontein Colliery before transport to SSF.



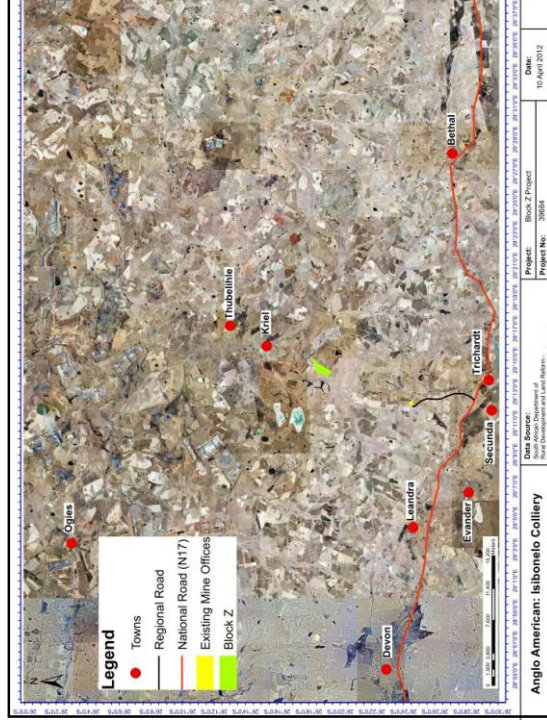
4. Block Z Project Description

- The proposed Block Z Open Cast Pit is approximately 14.1ha with a coal capacity of 9 million tons;
- The proposed Block Z Open Cast Pit will be located adjacent to the current Isibonelo Colliery mining operations.
- It is understood that the proposed mining of Block Z will not increase Isibonelo Colliery's existing life of mine (LoM) however it will increase its annual production rate.
- Isibonelo Colliery propose to mine Block Z using currently employed opencast methods, namely, dragline and truck and shovel mining methods.



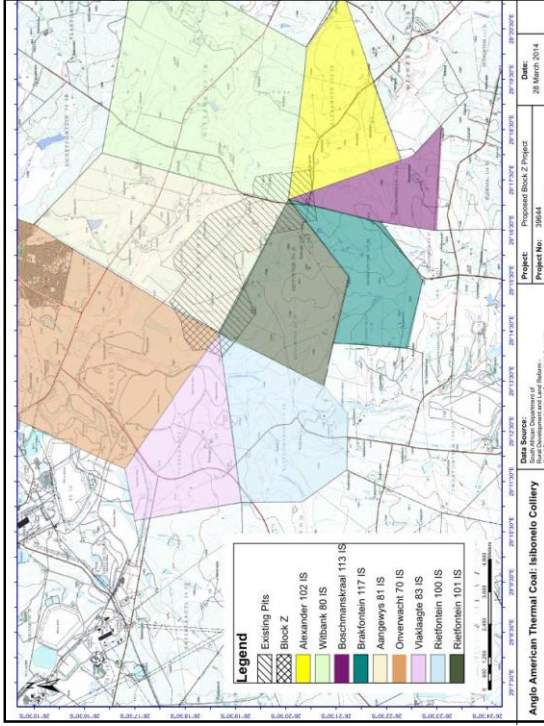
5. Block Z Project Location

- The Block Z project will be located west of (adjacent) to the current IC mining activities, east of the Kriel Colliery open cast and underground operations and north of the Sasol's underground Syferfontein coal mine.
- More specifically it is located between the towns of Kinross, Secunda, Bethal and Kriel
 - Rietfontein 101 IS Portion (0) Remainder
 - Rietfontein 101 IS Portion 1
 - Rietfontein 101 IS Portion 5
 - Rietfontein 101 IS Portion 54
 - Brakfontein 117 IS Portion (0) Remainder
 - Aangewys 81 IS Portion 1
 - Alexander 102 IS Portion 2
 - Alexander 102 IS Portion 4
 - Witbank 80 IS Portion 23.
 - Brakfontein 117 IS Portion 4.



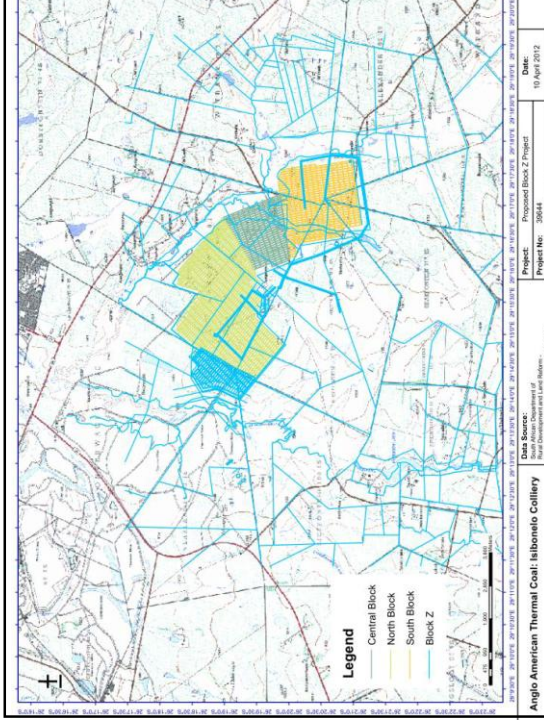
Anglo American: Isibonelo Colliery

Drawn By: [Name], Date: 10 April 2012
 Project: Block Z Project
 Drawn No.: 30066



5. Authorisation Process

- Environmental Authorisation
 - Authorisation required for listed activities included in GNR 544 and 545 of 2010 as published in the NEMA
 - The decision making authority for environmental authorisation is the MDEDET
- Mining Right and EMPR Amendment
 - Mining Rights Amendment Application and Environmental Management Programme Report Amendment in terms of the MPRDA
 - The decision making authority is the Mpumalanga DMR
- Water Use License Application
 - A water use license application in terms of the NWA
 - The decision making authority is the DWA
- Single Scoping and Environmental Impact Assessment/Reporting in accordance with NEMA, MPRDA and NWA
 - Three separate authority submissions to MDEDET, DMR and DWA



Competent Authorities



Mpumalanga Department of Economic Development, Environment and Tourism	
Contact Person:	Charity Mkhomo
Postal Address:	Corner Rosemead and Ryan Road, Klintonien, Witbank
Telephone:	013 692 6300
Fax:	
Email:	cc@mhmuvea@mpa.gov.za
Department of Mineral Resources	
Contact Person:	Phelewanani Muroga
Postal Address:	Province House, Corner Paul Kruger & Bona Street, Emalaheni, 1035
Telephone:	013 693 0500
Fax:	
Email:	
Department of Water Affairs	
Contact Person:	Phele Mnyela
Postal Address:	No 22 Rooth Street, Erasmus, Bronkhorstul, 1020
Telephone:	013 932 2081
Fax:	013 932 2071
Email:	mnyela@dwqa.gov.za
Central Water Heritage Resources Agency	
Contact Person:	Phyllis Kruger
Postal Address:	PO Box 4637 Cape Town, 8000
Telephone:	021 462 4502
Fax:	021 462 4509
Email:	To be decided



6. Water Use Activities



6. Water Use Activities



Section 21 of the National Water Act (No. 36 of 1998) describes the various water uses covered by the Act.

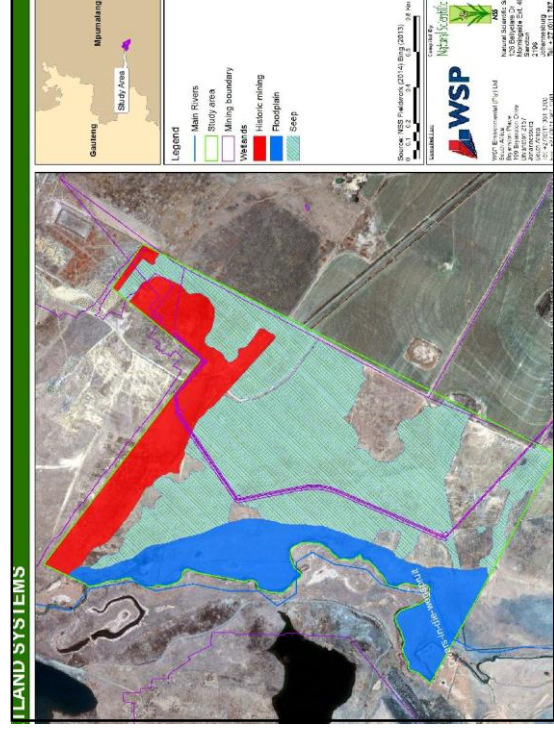
The following water use activities have been identified as applicable to the proposed Block Z project:

- 21 (c) Impeding or diverting the flow of water in a watercourse
- 21 (f) Altering the bed, banks, course or characteristics of a watercourse
- 21 (g) Disposing of waste in a manner which may detrimentally impact on a water resource
- 21 (i) 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

Government Notice 1198 and 1199 state that construction activities occurring within a 500m radius of a wetland require a water use license.

In the case of the proposed project, specialist investigations have determined that the majority of the proposed Block Z area can be classified as a wetland. As such, a water use license will be required for the following:

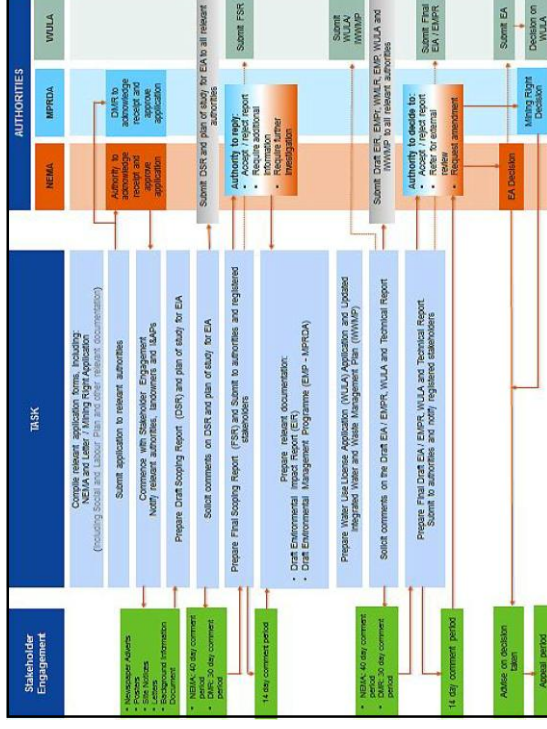
[Preliminary specialist assessment indicating that the proposed project is a water use activity.](#)



Water Use Licence Application (cont.)

Additionally, the following water use license applications have been identified as applicable for the proposed Block Z project:

- 21 (g) Disposing of waste in a manner which may detrimentally impact on a water resource
- 21 (j) 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



7. Offset Options

- Option 1 – Rehabilitate Block Z Area to its Present Ecological State (PES)
 - Rehabilitation to occur following mine closure
 - Subject to the specialist evaluation of Block Z Wetland PES
 - Preliminary communications suggest that the PES will not be high due to degradation of the surrounding areas from mining activities.
- Option 2 – Rehabilitate an Alternate Wetland Area Within the Isibonelo Colliery
 - Site to be determined in consultation with wetland specialist in order to ensure comparative PES with Block Z
 - Rehabilitate the identified area in consultation with specialist input
- Option 3 – Rehabilitate an Alternate Wetland Area Outside of Isibonelo Colliery
 - Site to be determined in consultation with wetland specialist in order to ensure comparative PES with Block Z
 - Rehabilitate the identified area in consultation with specialist input

8. Way Forward

- WSP Disseminate Minutes of the Confirmed Process
- Complete Stakeholder Engagement Process
- Ensure Technically Sound Report Compilation
- Continued Liaison with DWA Representative

For further queries please contact:

WSP Environmental



Janna Bedford-Owen / Brent Holme	Zaffar Hussain
Project Manager	Consultant
Tel: 011 361 1371/89	Tel: 011 361 1387
Fax: 086 5566 336	Fax: 011 361 1381
Janna.Bedford-Owen@wspgroup.co.za	Zaffar.Hussain@wspgroup.co.za



SAHRA

Our Reference: 39864
MDEDET reference: 17/2/3N-362



06 August 2014

SA HERITAGE RESOURCES AGENCY
RECEIVED
07 AUG 2014

Dear Stakeholder,

NOTIFICATION OF THE PUBLIC MEETING AND DRAFT SCOPING REPORT PUBLIC REVIEW FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELÓ COLLIERY, MPUMALANGA

WSP Environmental (Pty) Ltd (WSP) has been appointed by Anglo American Coal (AAC): Isibonelo Colliery as the independent environmental assessment practitioner to facilitate the Scoping and Environmental Impact Reporting process (S&EIR) and associated stakeholder engagement process for the proposed Block Z Open Cast Pit (Block Z).

The proposed Block Z is approximately 141ha with a coal capacity of 9 million tons and it proposed to undergo open cast mining by Isibonelo Colliery.

The proposed project involves listed activities contained in the National Environmental Management Act (No. 107 of 1998) (NEMA), with specific reference to Government Notice Regulation (GNR) 544 and 545. In accordance with the NEMA, an S&EIR process must be undertaken for the proposed project. In addition, the proposed Block Z project will require a Water Use License Application (WULA) in accordance with the National Water Act (No. 36 of 1998) (NWA) as well as an Environmental Management Programme Report (EMPR) Amendment process and Mining Rights Amendment according to the Mineral and Resources Development Act (No. 28 of 2002) (MPRDA).

The Draft Scoping Report will be available for public comment for a period of 40 days from **8 August 2014 to 12 September 2014**. WSP will include and respond to all comments received during the public review period prior to finalising and submitting the reports to the competent authorities. The report will be available at the following venues:

- Isibonelo Colliery Reception Office (26° 24' 34.17"S, 29° 12' 16.53"E);
- Bethal Public Library (Danie Nortje road, Bethal);
- Secunda Public Library (Lourens Muller Street, Secunda 2302);
- WSP Website (<http://aeco1web01.se.wspgroup.com/en/WSP-Africa/What-we-do/Services/All-Services-A-Z/Technical-Reports/>)

Please note that a Public Meeting has been scheduled during this public review process. The public meeting will be held **from 4 – 6pm on 21 August 2014**. Should you wish to attend the Public Meeting, please submit your details to Zaffar Hussain by **15 August 2014** to receive confirmation of the venue.

Should you have any questions, please do not hesitate to contact the undersigned.

Kind Regards,

Zaffar Hussain
Consultant
Tel: 011 361 1387
Fax: 011 361 1381
Email: Zaffar.Hussain@wspgroup.co.za

WSP Environmental (Pty) Ltd
WSP House
Bryanston Place
159 Bryanston Drive
Bryanston, 2011
Tel: +27 (0)11 361 1380
Fax: +27 (0)11 361 1381
<http://www.wspenvironmental.co.za>
Reg. No: 1995/08790/07

WSP Group plc
Offices worldwide

Bedford-Owen, Janna

From: Bedford-Owen, Janna
Sent: 04 August 2014 09:20 AM
To: Fhatuwani.Muronga@dmr.gov.za; Ismatawana@mpg.gov.za; dtswai@mpg.gov.za; elmtsweni@mpg.gov.za
Subject: FW: Block Z Open Cast Pit - Scoping Phase Authorities Meeting

Importance: High

Good day,

Please make note of the below preferred dates requested by Ms Monyela of the DWA.

Kind Regards,

Janna Bedford-Owen
Senior Environmental and Sustainability Consultant

WSP, Environment & Energy, Africa

WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
Tel: +27 11 361 1371 | Mobile: +27 82 302 8331 | Fax: +27 86 556 6336 | www.wspgroup.co.za

From: Monyela Pinky (BHT) [mailto:MonyelaP@dwa.gov.za]
Sent: 02 August 2014 02:11 PM
To: Bedford-Owen, Janna
Cc: Hussain, Zaffar
Subject: RE: Block Z Open Cast Pit - Scoping Phase Authorities Meeting

Good Day,

Please note that I can only be available on the 25 or 27 August 2014. Please respond as soon as you can as my schedule get filled up quickly.

Regards,
Pinky

From: Bedford-Owen, Janna [mailto:Janna.Bedford-Owen@WSPGroup.co.za]
Sent: Friday, August 01, 2014 11:36 AM
To: Ismatawana@mpg.gov.za; Fhatuwani.Muronga@dmr.gov.za; Monyela Pinky (BHT)
Cc: Hussain, Zaffar
Subject: Block Z Open Cast Pit - Scoping Phase Authorities Meeting

Good Day Fhatuwani, Lentswana and Pinky,

As you are all aware, WSP on behalf of Isibonelo Colliery, is undertaking a Scoping and Environmental Impact Reporting process in accordance with the MPRDA, NEMA and NWA in order to obtain EMPR Amendment, environmental authorisations and water use license respectively.

We would like to present the findings of the Draft Scoping Report, with plan of study for EIA, to you during the public review period (5 August – 12 September 2014). I would like to suggest the last week of August (25-29) or the first week in September (1 – 5) as a preferred timeslots.

I would be grateful if you could send through 2 preferred dates so we can schedule accordingly. We open to making the meeting venue at one of the departments witbank offices to accommodate as well.

Kind Regards,
Janna Bedford-Owen
Senior Environmental and Sustainability Consultant



WSP, Environment & Energy, Africa

WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa

Tel: +27 11 361 1371

Mob: +27 82 302 8331

Fax: +27 86 556 6336

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Appendix B – Stakeholder Engagement

NAME	ADDRESS	FAX	TEL	CELL
Danie & Dalène Theron	Klipkraal, P.O.Box 119, Trichardt. 2300	Unknown	(017) 638 1059	082 494 6152
Dipuo Molamu	Unknown	Unknown	Unknown	084 587 4543
Annelie Rossouw	Unknown	Unknown	Unknown	082 923 6497
Ryno & Igna Beukes	Klipkraal, P.O.Box 119, Trichardt. 2300	Unknown	(017) 6380170	082 496 3256
Francois de Wet	Brakfontein, P.O.Box 119, Trichardt, 2301	Unknown	(017) 638 1599	072 240 6598
Giep de Wet	Klipkraal, Trichardt	Unknown	(017) 638 0496	Unknown
Gustav le Roux	Unknown	Unknown	Unknown	079 973 2024
Christine van Niewenhuisen	Unknown	Unknown	(017) 6380877	082 496 3306
Henry & Marlene Dunn	Aangewys, P.O. Box 452, Bethal.	Unknown	(017) 648 4662	082 571 3763
Niekie	Unknown	Unknown	Unknown	Unknown
Nic/Annelie van Rensburg	Witbank, P.O. Box 452, Bethal.	Unknown	Unknown	0824185966
Nkosinomusa Ntombela	Unknown	Unknown	Unknown	083 576 4688
Marius Leach	Witbank, P.O. Box 452, Bethal.	Unknown	Unknown	0827790787
B.J.J. vd Merwe	Witbank, P.O. Box 452, Bethal.	Unknown	Unknown	Unknown
H.J. Pieterse	Witbank, P.O. Box 67, Bethal.	Unknown	(017) 6470364	086 670 9815
Pieter vd Merwe	Aangewys, P.O.Box 452, Bethal	Unknown	(017) 648 4691	0829232367
L.C. vd Merwe	Witbank, P.O. Box 67, Bethal.	Unknown	(017) 6470014 (does not exist)	Unknown
Linah Mavimbela	Unknown	Unknown	Unknown	076 922 0200
Nelius Greyling	Rietfontein	Unknown	Unknown	0824472171
Nelson Ratshoshi	Unknown	Unknown	Unknown	083 977 9446
Frans Geysler	PO Box 2143, kinross, 2270	Unknown	Unknown	0722897533
T. Schwartz	Rietfontein, P.O. Box ,	Unknown	(013) 643 1807 (does not exist)	Unknown
J.D.P. Venter	Alexander, P.O. Box 78, Bethal	Unknown	Unknown	083 285 8952
Deon vd Westhuizen	Witrand	Unknown	(017) 647 0220	082 524 5088
D.S. du Toit	Rietfontein, P.O. Box 2192, Bethal	Unknown	(011) 929 9829	082 657 4777
M.M. J v Rensburg	RG 1, P.O.Box 1467, Bethal	Unknown	(017) 647 3280	082 550 4560
Gerhard Holtzhausen	Aangewys, P.O. Box 557, Bethal	Unknown	Unknown	0823882003
Johan Holtzhausen	Aangewys, P.O. Box 557, Bethal	Unknown	Unknown	082 388 2002
Stoffel Potgieter	Aangewys, P.O. Box 557, Bethal	Unknown	Unknown	'0735880015
Sebastiaan Crous	Unknown			017 620 2710
Wessel Swart	Aangewys, P.O. BOX 779, Bethal	(017) 638 0534	Unknown	Unknown
Gawie & Kobie De Wet	PO Box 53, trichardt, 2300		(017) 6380576	082 786 1504
Advent Maboye	Unknown	Unknown	Unknown	076 0910 188
Kurt Seger	Unknown	Unknown	Unknown	076 895 2781
Jacques Du Plessis	Unknown	Unknown	Unknown	017 614 8114
Mirie Grant	Unknown	Unknown	Unknown	Unknown
Tian Huyzers	Unknown	Unknown	Unknown	083 228 3890
Hennie Marais	Unknown	Unknown	Unknown	082 461 3377
Nico & Deonie	Unknown	Unknown	Unknown	072 425 7826
Turn2god	Unknown	Unknown	Unknown	Unknown
H Swartz	Unknown	Unknown	Unknown	071 106 2438 & 071 638 5054
Maphuti Boloka	Unknown	Unknown	Unknown	082 889 4214
Petros Mahlangu (ward 26 councilor 26)	P.O. Box 31103, Kriel, 2271	Unknown	Unknown	078 001 8923
Zingisa Mbuku (Ward 27 councilor)	Unknown	(017) 648 4764	Unknown	076 652 1282
Mary - Loo Watkins	Unknown	Unknown	Unknown	071 873 2339
Marilize Grobler	Unknown	Unknown	Unknown	Unknown
Maggie Schosand	Unknown	Unknown	Unknown	073 989 9400
Michael Dugmore	Unknown	Unknown	Unknown	017 620 2704
B. Muller	P O BOX 19, KINROSS		(017) 686-2144	Unknown
Etiene	Unknown	Unknown	Unknown	082 840 2261
Gail Nussey-Vos	Unknown	(011) 522 9272	(017) 614 2207	Unknown
Cobus Smit	Unknown	Unknown	Unknown	082 839 5919
A Steffens	Unknown	Unknown	Unknown	073 218 0085
Dakus Smook	Unknown	Unknown	Unknown	083 603 5572
Nkosikhona Khumazo	Stand 17130, Ext 17, Embalenhle, 2285	(017) 634 7279	(017) 634 7162	079 468 5227
Phumzile Mshibe	Unknown	Unknown	Unknown	017 620 6823
Steve Klills	Unknown	Unknown	Unknown	072 643 9556
Eric	Unknown	Unknown	Unknown	071 553 7696
J Malaza	P.O. Box 449, Bethal, 2310	Unknown	Unknown	072 512 5720
Blaauw	Unknown	Unknown	Unknown	084 724 7953
Janco Wandrag	Unknown	Unknown	Unknown	083 447 2867
Wimpi	P.O. Box 1688, suite 120, Marobert, 1050	Unknown	Unknown	076 834 4728
Ivensley	Unknown	Unknown	Unknown	078 0473735
Jewery H Lande	Unknown	(017) 648 4746	(017) 648 6200	082 444 0471
J Torien	P.O. Box 1915, Kriel, 2271	Unknown	Unknown	082 909 0604
Jacques Du Plessis	Unknown	(011) 522 6757	(017) 614 8008	Unknown
Thys Fourie	Unknown	Unknown	Unknown	076 123 4371
Paul Cronje (sasol)	P.O. Box 699, Trichardt, 2300	(011) 522 1727	017 614 8011	Unknown
Tommy Charter	P.O. Box 18, Trichardt, 2300	Unknown	(017) 6380878	0722865592
Tony Strachman	Unknown	Unknown	Unknown	Unknown
William Charter	Unknown	Unknown	(017) 6380878	Unknown
Coert Marais	Landsloot, Kinross	Unknown	(017) 6871320	0825513632

Mr Greyling	PO Box 699, Trichardt, 2300	Unknown	(017)614 8031	082 447 2171
Hennie Schoeman (Chief Land & Rights Officer: Ssasol Mining & Properties)	P.O. Box 40111, Moreletapark, 0044	(011)522 4458	Unknown	Unknown

Bedford-Owen, Janna

From: Jenna Lavin <jlavin@sahra.org.za>
Sent: 20 June 2014 02:25 PM
To: Hussain, Zaffar
Cc: Bedford-Owen, Janna
Subject: Re: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)

Dear Zaffar,

Please create this project as an application on SAHRA's online heritage management system, SAHRIS, at www.sahra.org.za as SAHRA no longer accepts applications via email.

Kind regards

Jenna Lavin

Heritage Officer
Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

111 Harrington Street
PO Box 4637,
Cape Town
8000,
South Africa

E-mail: jlavin@sahra.org.za
Phone : +27 (0)21 462 4502
Fax : +27 (0)21 462 4509
Web : www.sahra.org.za

From: "Zaffar Hussain" <Zaffar.Hussain@WSPGroup.co.za>
Cc: "Janna Bedford-Owen" <Janna.Bedford-Owen@WSPGroup.co.za>
Sent: Friday, 20 June, 2014 2:24:21 PM
Subject: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)

Dear Stakeholder,

Anglo American Thermal Coal (AATC) : Isibonelo Colliery (IC) proposes develop an open cast pit (Block Z) adjacent to their current operations. Stakeholder engagement forms part of the required legislated environmental authorisation process. This email serves to provide you as an identified stakeholder with a Notification Letter and Background Information Document for the Proposed Mining of Block Z.

The attachments have been translated into Afrikaans and Zulu, and should you require these translated version please do not hesitate to contact the undersigned.

Should you wish to register as a stakeholder for the proposed project, please complete the Registration and Comments Sheet (page 7 of the BID) and return to the undersigned. We trust you find the above in order however, should you have any queries / comments, please don't hesitate to contact WSP.

Kind Regards,

Zaffar Hussain
Environmental Consultant



WSP, Environment & Energy, Africa

WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa

Tel: +27 11 361 1387

Mob:

Fax: +27 11 361 1381

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<http://mail.sahra.org.za/disclaimer.html>

Bedford-Owen, Janna

To: Hussain, Zaffar
Subject: RE: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)

Dear Zaffar

With reference to the e-mail received from Sasol below and attachments to his e-mail

Can you please assist with the question raised

Regards

Chantelle Gerber D +27 (0)11 638 3479 M +27 (0)83 234 0145

From: Booyens, Sarel (SA) [<mailto:sarel.booyens@sasol.com>]
Sent: 26 June 2014 10:48 AM
To: Krynauw, Gideon; Gerber, Chantelle
Cc: Cronje, Paul (PJM)
Subject: FW: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)

Gideon/Chantelle

With reference to the attached kindly indicate whether this amendment includes the exclusion of the area to be transferred to Sasol Mining, but still includes the opencast infrastructure and overburden dumps on the Sasol Mining area?

Regards

Sarel

From: Hussain, Zaffar [<mailto:Zaffar.Hussain@WSPGroup.co.za>]
Sent: Friday, June 20, 2014 2:24 PM
Cc: Bedford-Owen, Janna
Subject: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)

Dear Stakeholder,

Anglo American Thermal Coal (AATC) : Isibonelo Colliery (IC) proposes develop an open cast pit (Block Z) adjacent to their current operations. Stakeholder engagement forms part of the required legislated environmental authorisation process. This email serves to provide you as an identified stakeholder with a Notification Letter and Background Information Document for the Proposed Mining of Block Z.

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Should you wish to register as a stakeholder for the proposed project, please complete the Registration and Comments Sheet (page 7 of the BID) and return to the undersigned. We trust you find the above in order however, should you have any queries / comments, please don't hesitate to contact WSP.

Kind Regards,

WSP, Environment & Energy, Africa

WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa

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Mob:

Fax: +27 11 361 1381

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O'Brien, Jared

From: Sibiya, Brenda
Sent: 08 September 2014 11:40 AM
To: Bedford-Owen, Janna
Cc: O'Brien, Jared
Subject: FW: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Follow Up Flag: Follow up
Flag Status: Flagged

Brenda Sibiya
Environmental Consultant

WSP, Environment & Energy, Africa

WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
Tel: +27 11 3611391 | Mobile: +27 76 1092607 | Fax: +27 11 361 1301 | www.wspgroup.co.za

From: Conradie, Anneke (A) [<mailto:anneke.conradie@sasol.com>]
Sent: 08 September 2014 08:50 AM
To: Sibiya, Brenda
Subject: FW: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Good morning Brenda

Reference is made to the minutes and presentation received via my manager Paul Cronje, regarding the public meeting held on 21 August 2014.

It will be appreciated if you could assist:

1. The DMR file number of the mining right being amended;
2. The extent of the amendment, eg the addition of more land, etc
3. On slide 7 of the presentation, does Block Z mining right amendment area (indicated in red) include all the portions mentioned in the top slide, or are they only included in your study area?
4. Note must be taken that Windeed currently does not indicate the existence of a Portion 54 of Rietfontein 101 IS, maybe Portion 4?

Thanks and regards

sasol
reaching new frontiers



Uno Building, Paul Kruger Street,

Anneke Conradie

Senior Mining Rights Officer
Mining Rights and Properties, Sasol Mining (Pty) Ltd

Tel +27 17 614 8004
Fax +27 11 522 8289
Mobile +27 82 729 0918
E-mail anneke.conradie@sasol.com



Environmental awareness starts with each of us – think before you print this page

From: Cronje, Paul (PJM)
Sent: 08 September 2014 07:51
To: Conradie, Anneke (A)
Subject: FW: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

FYI

From: Sibiya, Brenda [<mailto:Brenda.Sibiya@WSPGroup.co.za>]
Sent: Tuesday, September 02, 2014 12:45 PM
To: O'Brien, Jared
Cc: Bedford-Owen, Janna
Subject: RE: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Dear Stakeholder,

ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

The Scoping Phase Public Meeting for the Proposed Mining of the Block Z was held on the 21st of August 2014.

Kindly find attached the meeting minutes for your records.

Please contact the undersigned should you have any questions.

Regards

Jared O'Brien
Environmental Consultant



WSP, Environment & Energy, Africa
WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
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**NOTICE OF ENVIRONMENTAL AUTHORISATION
FOR THE PROPOSED ANGLO AMERICAN
THERMAL COAL: ISIBONELO COLLIERY BLOCK Z
PROJECT, MPUMALANGA**

Notice is given, in terms of government notice regulations (GNR) 543, 544 and 545 (December 2010) published under the National Environmental Management Act (No. 107 of 1998) (NEMA), section 41(4)(a) of the National Water Act (No. 36 of 2004) (NWA), and section 49 and 50 of GNR 527 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), of the submission of applications for environmental and mining authorisation (EA) as well as a water use license (WUL).

DESCRIPTION AND LOCATION

The Proponent, Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) proposes to establish the Block Z Opencast Coal pit (Block Z), between the towns of Kinross, Secunda, Bethal and Kriel in the Mpumalanga Province. The area falls within the Nkangala District Municipality and the Emalahleni Local Municipality. The proposed Block Z project involves the open cast mining of approximately 141 ha, which has an estimated coal reserve of 9 million tons. The proposed mining of Block Z will not increase the existing life of the mine or the projected future mining production rate. IC has an approved Mining Right for its current operations. WSP Environmental (Pty) Ltd (WSP) has been appointed by IC as the independent Environmental Assessment Practitioner (EAP) to undertake a comprehensive Scoping and Environmental Impact Reporting (S&EIR) process inclusive of new and transferal of a Mining Right, an Environmental Management Programme Report (EMPR) Amendment under MPRDA, an EA under NEMA, and WUL under the NWA for the proposed Block Z project.

ENVIRONMENTAL APPLICATION

Notice is given of intent to submit the necessary applications required in order to obtain the following:

- EA, for GNR 544 listed activities 9, 11, 37, 47 and GNR 545 listed activity 15 and 20 (December 2010) published in terms of the NEMA, from the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET) (MDEDET Ref: 17/2/3N-362)
- A WUL, in terms Section 21 (c) and (i) of the NWA, from the Department of Water Affairs (DWA)
- The transfer of and a new mining right application, and an EMPR Amendment, in terms section 48 – 56 of GNR 527 of the MPRDA ,from the Department of Mineral Resources

NAME OF PROPONENT

Anglo American Thermal Coal: Isibonelo Colliery

REGISTER AS A STAKEHOLDER

To register as a stakeholder, please submit your name, contact information and interest in the matter to Zaffar Hussain (details below) within 30 days of this advertisement publication date.

ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

WSP

Contact Person:

Zaffar Hussain

Consultant

Tel: 011 361 1387

Fax: 011 361 1381

Email: Zaffar.Hussain@wspgroup.co.za

Address: PO Box 98867, Sloane Park, 2152



**KENNISGEWING VAN OMGEWINGSMAGTIGING VIR DIE
VOORGESTELDE ANGLO AMERICAN
STOOMSTEENKOOL: ISIBONELO STEENKOOLMYN
BLOK Z-PROJEK, MPUMALANGA**

Kennis geskied hiermee ingevolge regulasies kragtens Staatskennisgewing R543, R544 en R545 (Desember 2010) gepubliseer ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), Artikel 41(4)(a) van die Nasionale Waterwet (Wet 36 van 2004) (NWA) en Artikel 49 en 50 van Staatskennisgewing R527 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA) van die indiening van aansoeke om omgewings- en mynboumagtiging (OM) en van 'n watergebruiklisensie (WUL).

BESKRYWING EN LIGGING

Die Projekvoorsteller, Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn (AATC: IC) stel die oprigting voor van die Blok Z Oopgroef Steenkoolmyn (Blok Z), tussen Kinross, Secunda, Bethal en Kriel in die Mpumalanga-provinsie. Die gebied is in die Nkangala Distriksmunisipaliteit en die Emalaheni Plaaslike Munisipaliteit geleë. Die voorgestelde Blok Z-projek behels die oopgroefmynbou van sowat 141 hektaar, wat oor 'n beraamde steenkoolreserwe van 9 miljoen ton beskik. Die voorgestelde mynbou by Blok Z sal nie die bestaande lewensduur van die myn of die geprojekteerde toekomstige mynbouproduksie verleng nie. IC beskik oor 'n goedgekeurde Mynreg vir sy huidige bedrywighede. WSP Environmental (Edms.) Bpk. (WSP) is deur IC aangestel as die Onafhanklike Omgewings-evalueringspraktisyn (OEP) om 'n omvattende Bestekopname en Omgewingsimpak-verslagdoeningsproses (B&OIV-proses), wat 'n nuwe Mynreg en die oordrag van 'n Mynreg, 'n Wysiging van 'n Omgewingsbestuursprogramverslag (OBPV) ingevolge die MPRDA, 'n OM ingevolge NEMA en WUL ingevolge die Nasionale Waterwet (NWA) vir die voorgestelde Blok Z-projek insluit.

OMGEWINGSAANSOEK

Kennis geskied van die voorneme om die nodige aansoeke in te dien ten einde die volgende te bekom:

- OM, vir Staatskennisgewing R544 gelyste aktiwiteit 9, 11, 37, 47 en Staatskennisgewing R545 gelyste aktiwiteit 15 en 20 (Desember 2010) gepubliseer ingevolge NEMA, van Mpumalanga se Departement van Ekonomiese Ontwikkeling, Omgewingsake en Toerisme (MDEDET) (MDEDET Verw.: 17/2/3N-362)
- 'n WUL, ingevolge Artikel 21(c) en (i) van die NWA, van die Departement van Waterwese (DWA)
- Die oordrag van en 'n aansoek om 'n nuwe mynreg en 'n OBPV-wysiging ingevolge Artikel 48 – 56 van Staatskennisgewing R527 van die MPRDA, van die Departement van Minerale Hulpbronne.

NAAM VAN PROJEKVOORSTELLER

Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn

REGISTREER AS 'N BELANGHEBBENDE

Ten einde as 'n belanghebbende te registreer, moet u asseblief u naam, kontakbesonderhede en belang in die aangeleentheid aan Zaffar Hussain (besonderhede hieronder) binne 30 dae vanaf die publikasiedatum van hierdie advertensie verstrek.

OMGEWINGSEVALUERINGS PRAKTISYN (OEP)

WSP

Kontakpersoon:

Zaffar Hussain

Konsultant

Tel: 011 361 1387

Faks: 011 361 1381

E-pos: Zaffar.Hussain@wspgroup.co.za

Adres: Posbus 98867, Sloanepark, 2152



**ISAZISO SESIGUNYAZO SEZEMVELO
SEPHROJEKTHI YE-BLOCK Z EHLONGOZWAYO YE-
ANGLO AMERICAN THERMAL COAL: ISIBONELO
COLLIERY, EMPUMALANGA**

Kunikezwa isaziso, ngokuvumelana neziqondiso zesaziso sikahulumeni (GNR) 543, 544 no-545 (Disemba 2010) esishicilelwe ngaphansi koMthetho Wokulawulwa Kwezemvelo Kazwelonke (No. 107 ka-1998) (NEMA), isigaba 41(4)(a) soMthetho Wamanzi Kazwelonke (No. 36 ka-2004) (NWA), nesigaba 49 no-50 se-GNR 527 soMthetho Wokuthuthukiswa Kwamaminerali Nezimbiwaphansi (No. 28 ka-2002) (MPRDA), sokuhanjiswa kwezicelo zesigunyazo sezemvelo nokumba (EA) kanye nelayisensi yokusebenzisa amanzi (WUL).

INCAZELO NENDAWO EKUYO

Umhlongozi, i-Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) uhlongoza ukusungula umgodi wokumba amaLahle Ovulekile I-Block Z (Block Z), phakathi kwamadolobha i-Kinross, i-Secunda, i-Bethal ne-Kriel eSifundazweni SaseMpumalanga. Le ndawo ingaphansi kukaMasipala Wesifunda iNkangala noMasipala Wendawo Emalaheni. Iphrojekthi i-Block Z ehlongozwayo ibandakanya indawo yokumba emgodini ovulekile elinganiselwa ku-141 ha ku-Block Z, enamalahle alinganiselwa kumathani ayizigidi ezingu-9 angakambiwa. Ukumbiwa okuhlongozwayo kwe-Block Z ngeke kwandise isikhathi sokusetshenziswa kwemayini esikhona noma izinga lokukhiqiza elilindelwe esikhathini esizayo. I-IC ineLungelo Lokumba elivunyiwe lemisebenzi yayo yamanje. Abakwa-WSP Environmental (Pty) Ltd (WSP) baqokwe yi-IC njengoMhlaziyi Wezemvelo ozimele (EAP) ukuba benze inqubo ebanzi yoMbiko Wokubheka Isimo Nomthelela Kwezemvelo (S&EIR), ehlanganisa iLungelo Lokumba elisha kanye nokudluliselwa kwalo, iSichibiyelo soMbiko Wokulawulwa Kwezemvelo (EMPR) ngaphansi kwe-MPRDA, i-EA ngaphansi kwe-NEMA, ne-WUL ngaphansi kwe-NWA yephrojekthi i-Block Z ehlongozwayo.

ISICELO SEZEMVELO

Kunikezwa isaziso ngenhloso yokuhambisa izicelo ezidingekayo ukuze kutholakale lokhu okulandelayo:

- I-EA, yemisebenzi esohlwini ye-GNR 544 okungu-9, 11, 37, 47 nemisebenzi esohlwini ye-GNR 545 okungu-15 no-20 (Disemba 2010) eyashicilelwa ngokuvumelana ne-NEMA, eMnyangweni Wokuthuthukiswa Komnotho, Ezemvelo Nezokuvakasha WaseMpumalanga (MDEDET) (Irifarensi Ye-MDEDET: 17/2/3N-362)
- I-WUL, ngokuvumelana neSigaba 21 (c) no-(i) se-NWA, yoMnyango Wezamanzi (DWA)
- Isicelo sokudluliselwa kanye neselungelo lokumba esisha neSichibiyelo se-EMPR, ngokuvumelana nesigaba 48 – 56 se-GNR 527 ye-MPRDA, yoMnyango Wezimbiwaphansi.

IGAMA LOMHLONGOZI

I-Anglo American Thermal Coal: Isibonelo Colliery

UKUBHALISA NJENGOMBAMBIQHAZA

Ukuze ubhalise njengombambiqhaza, sicela uhambise igama lakho, imininingwane yokuxhumana nawe neqhaza ofisa ukulibamba kule ndaba ku-Zaffar Hussain (imininingwane ingezansi) phakathi kwezinsuku ezingu-30 kushicilelwe lesi sikhango.

UMHLAZIYI WEZEMVELO (EAP)

WSP Environmental

Umuntu Okungaxhunyanwa Naye:

Zaffar Hussain

Ucingo: 011 361 1387

Ifeksi: 011 361 1381

I-imeyili: Zaffar.Hussain@wspgroup.co.za

Ikheli: P.O. Box 98867, Sloane Park, 2152





BETHAL - Dié leerlinge van Laerskool Marietjie van Niekerk het pryse van Cashbuild vir hul kunswerke ontvang. Hulle is Bianca Long, Amber-Rose Rafferty en Lelani Siemens.



BETHAL - Jim van Tonderskool se rugbyspanne het onlangs teen Krugerlaan Skool gespeel. Hier reik Armantis Viljoen van Jim van Tonderskool vir die bal.



ISAZISO SFSIGUNYAZO SEZEMVELO SEPHROJEKTHI YE-BLOCK Z EHLONGZOYWAYO YE-ANGLO AMERICAN THERMAL COAL: ISIBONELO COLLIERY, EMPUMALANGA

Kunikezwa isaziso ngokuvumelana nezindondiso zesaziso sikahulumeni (GNR) 543, 544 no-545 (Disemba 2010) esichicilelwe ngaphansi koMthetho Wokulawulwa Kwezemvelo Kazwelonke (No. 107 ka-1998) (NEMA), isigaba 41(4)(a) soMthetho Wamanzi Kazwelonke (No. 36 ka-2004) (NWA), nesigaba 49 no-50 se-GNR 527 soMthetho Wokuthuthukiswa Kwamanziwezi Nezimbizwa-phansi (No. 28 ka-2002) (MPRDA), sokuhanjiswa kwezicelo zesigunyazo sezemvelo nokumba (EA) kanye nelayisensi yokusebenzisa amanzi (WUL).

INCAZELO NENDAWO EKUYO

Umlhongozi, i-Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) uhlongoza ukusungula umgodi wokumba amalAhle Ovulekile i-Block Z (Block Z), phakathi kwamadobha i-Kinross, i-Secunda, i-Bethal ne-Kriel eSiFundazweni SaseMpumalanga. Le ndawo ingaphansi kukaMasipala Westfunda iNkangala noMasipala iWendawo Emalaheni. Iphrojekthi i-Block Z ehlongozwayo ibandakanya indawo yokumba emgodini ovulekile elingangiselwa ku-141 ha ku-Block Z, anamathle alingangiselwa kumathani ayizigidi ezingu-9 angakambinwa. Ukumbiwa okuhlongozwayo kwe-Block Z ngeke kwandise isikhatshi sokusebenziswa kweminyi esikhona noma izing lokukhiza elilindelewe esikhatshini esizayo. I-IC inelungelo lokumba elivunywile lemisebenzi yayo yamanzi. Abakwa-WSP Environmental (Pty) Ltd (WSP) baqokwa yi-IC njengomhlaziyi Wezemvelo ozaimele (EAP) ukuba benze inqubo ebanzi yoMboko Wokubhekisa Isimo Nomthelela Kwezemvelo (S&EIR), ehlanganisa ilungelo lokumba elisha kanye nokudluliselwa kwalo. Isichibiyelo soMboko Wokulawulwa Kwezemvelo (EMPR) ngaphansi kwe-MPRDA, i-EA ngaphansi kwe-NEMA, ne-WUL ngaphansi kwe-NWA yephrojekthi i-Block Z ehlongozwayo.

ISICELO SEZEMVELO

Kunikezwa isaziso ngenhloso yokuhambisa izicelo ezidingekayo kuzike kutholakele lokhu okulandelayo:

- I-EA, yenisebenzi esohlwini ye-GNR 544 okungu-9, 11, 37, 47 nemisebenzi esohlwini ye-GNR 545 okungu-15 no-20 (Disemba 2010) eyashicilelwa ngokuvumelana ne-NEMA, eMnyingweni Wokuthuthukiswa Komthetho Ezemvelo Nezokwakasha WaseMpumalanga (MDEDET) (infinansi ye-MDEDET: 17/2/3N-362)
- I-WUL, ngokuvumelana neSigaba 21 (c) no-(le)-NWA, yoMnyango Wazamanzi (DWA)
- Isicelo sokudluliselwa kanye nesolungelo lokumba esisha neSichibiyelo se-EMPR, ngokuvumelana nesigaba 48 – 56 se-GNR 527 ye-MPRDA, yoMnyango Wezimbiwa-phansi.

IGAMA LOMHLONGOZI
I-Anglo American Thermal Coal: Isibonelo Colliery

UKUBHALISA NJENGOMBAMBIQHAZA

Ukuze ubhalise njengombambiqhaza, sicela uhambe igama lakho, imininingwane yokuhumana nawe neqhaza ofisa ukulibamba kule ndaba ku-Zaffar Hussain (imininingwane ingezansi) phakathi kwezinsuku ezingu-30 kushicilelwe lesi sikhangiso.

UHLAZIYI WEZEMVELO (EAP) - WSP Environmental Umuntu Okungaxhunyanwa

Naye: Zaffar Hussain
Ucingo: 011 361 1387
Ifeksi: 011 361 1381
Imeyili: Zaffar.Hussain@wspgroup.co.za
Ikheli: P.O. Box 98867, Sloane Park, 2152



NOTICE OF ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ANGLO AMERICAN THERMAL COAL: ISIBONELO COLLIERY BLOCK Z PROJECT, MPUMALANGA

Notice is given, in terms of government notice regulations (GNR) 543, 544 and 545 (December 2010) published under the National Environmental Management Act (No. 107 of 1998) (NEMA), section 41(4)(a) of the National Water Act (No. 36 of 2004) (NWA), and section 49 and 50 of GNR 527 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), of the submission of applications for environmental and mining authorisation (EA) as well as a water use license (WUL).

DESCRIPTION AND LOCATION

The Proponent, Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) proposes to establish the Block Z Opencast Coal pit (Block Z), between the towns of Kinross, Secunda, Bethal and Kriel in the Mpumalanga Province. The area falls within the Nkangala District Municipality and the Emalaheni Local Municipality. The proposed Block Z project involves the open cast mining of approximately 141 ha, which has an estimated coal reserve of 9 million tons. The proposed mining of Block Z will not increase the existing life of the mine or the projected future mining production rate. IC has an approved Mining Right for its current operations. WSP Environmental (Pty) Ltd (WSP) has been appointed by IC as the independent Environmental Assessment Practitioner (EAP) to undertake a comprehensive Scoping and Environmental Impact Reporting (S&EIR) process inclusive of new and transfer of a Mining Right, an Environmental Management Programme Report (EMPR) Amendment under MPRDA, an EA under NEMA, and WUL under the NWA for the proposed Block Z project.

ENVIRONMENTAL APPLICATION

Notice is given of intent to submit the necessary applications required in order to obtain the following:

- EA, for GNR 544 listed activities 9, 11, 37, 47 and GNR 545 listed activity 15 and 20 (December 2010) published in terms of the NEMA, from the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET) (MDEDET Ref: 17/2/3N-362)
- A WUL, in terms Section 21 (c) and (i) of the NWA, from the Department of Water Affairs (DWA)
- The transfer of and a new mining right application, and an EMPR Amendment, in terms section 48 – 56 of GNR 527 of the MPRDA, from the Department of Mineral Resources

NAME OF PROPONENT
Anglo American Thermal Coal: Isibonelo Colliery

REGISTER AS A STAKEHOLDER

To register as a stakeholder, please submit your name, contact information and interest in the matter to Zaffar Hussain (details below) within 30 days of this advertisement/publication date.

ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

WSP

Contact Person: Zaffar Hussain
Consultant
Tel: 011 361 1387
Fax: 011 361 1381
Email: Zaffar.Hussain@wspgroup.co.za
Address: PO Box 98867, Sloane Park, 2152



KENNISGEWING VAN OMGEWINGSMAGTIGING VIR DIE VOORGESTELDE ANGLO AMERICAN STOOMSTEENKOOI: ISIBONELO STEENKOOIMYN BLOK Z-PROJEK, MPUMALANGA

Kennis geskied hiermee ingevolge regulasies kragtens Staatskennisgewing R543, R544 en R545 (Desember 2010) gepubliseer ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), Artikel 41(4)(a) van die Nasionale Waterwet (Wet 36 van 2004) (NWA) en Artikel 49 en 50 van Staatskennisgewing R527 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulbronne (Wet 28 van 2002) (MPRDA) van die indiening van aansoek om omgewings- en mynboumagtiging (OM) en van 'n watergebruiklisensie (WUL).

BESKRYWING EN LIGGING

Die Projekvoorsteller, Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn (AATC: IC) stel die oprigting voor van die Blok Z Oopgroef Steenkoolmyn (Blok Z), tussen Kinross, Secunda, Bethal en Kriel in die Mpumalanga-provinsie. Die gebied is in die Nkangala Distriksmunisipaliteit en die Emalaheni Plaaslike Munisipaliteit geleë. Die voorgestelde Blok Z-projek behels die oopgroefmynbou van sowat 141 hektar, wat oor 'n beraamde steenkoolreserwa van 9 miljoen ton beskik. Die voorgestelde mynbou by Blok Z sal nie die bestaande lewensduur van die myn of die projekteerde toekomstige mynbouproduksie verleng nie. IC beskik oor 'n goedgekeurde Mynreg vir sy huidige bedrywigheid. WSP Environmental (Edms.) Bpk. (WSP) is deur IC aangestel as die Onafhanklike Omgewings-evalueringspraktisyn (OEP) om 'n omvattende Bestekopname en Omgewingsimpak-verslagdoeningsproses (B&OIV-proses), wat 'n nuwe Mynreg en die oordrag van 'n Mynreg, 'n Wysiging van 'n Omgewingsbestuursprogramverslag (OBPV) ingevolge die MPRDA, 'n OM ingevolge NEMA en WUL ingevolge die Nasionale Waterwet (NWA) vir die voorgestelde Blok Z-projek insluit.

OMGEWINGSAAANSOEK

Kennis geskied van die voorneme om die nodige aansoek in te dien dien einde die volgende te bekom:

- OM, vir Staatskennisgewing R544 gelyste aktiwiteit 9, 11, 37, 47 en Staatskennisgewing R545 gelyste aktiwiteit 15 en 20 (Desember 2010) gepubliseer ingevolge NEMA, van Mpumalanga se Departement van Ekonomiese Ontwikkeling, Omgewingsake en Toerisme (MDEDET) (MDEDET Verw.: 17/2/3N-362)
- 'n WUL, ingevolge Artikel 21(c) en (i) van die NWA, van die Departement van Waterwese (DWA)
- Die oordrag van en 'n aansoek om 'n nuwe mynreg en 'n OBPV-wysiging ingevolge Artikel 48 – 56 van Staatskennisgewing R527 van die MPRDA, van die Departement van Minerale Hulbronne.

NAAM VAN PROJEKVOORSTELLER
Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn

REGISTREER AS 'N BELANGHEBBENDE

Ten einde as 'n belanghebbende te registreer, moet u asseblief u naam, kontakbesonderhede en belang in die aangeleentheid aan Zaffar Hussain (besonderhede hieronder) binne 30 dae vanaf die publikasiedatum van hierdie advertensie verstrek.

OMGEWINGS-EVALUERINGS-PRAKTISYEN (OEP)

WSP

Kontakpersoon: Zaffar Hussain
Konsultant
Tel: 011 361 1387
Faks: 011 361 1381
E-pos: Zaffar.Hussain@wspgroup.co.za
Adres: Posbus 98867, Sloane Park, 2152



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Attention: Georg

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Fax: 017 634 2498
sales@echoridge.co.za
reps@echoridge.co.za



Annaline Smith
Advertising Manager



Petro Maulicino
Bethal area



Ina van As
Trichardt area



Hannelie de Jager
Secunda area



Lizelle Grobler
Kinross, Evander & outside areas

Notice of a Scoping and Environmental Impact Reporting Process for the proposed Block Z project

Proponent: Anglo American Thermal Coal: Isibonelo Colliery

Project Location: ~26°18'52.99" S 29°14' 22.94" E

Environmental Assessment Practitioner: WSP Environmental (Pty) Ltd

ANGLO AMERICAN THERMAL COAL: ISIBONELO COLLIERY PROPOSED BLOCK Z PROJECT (MDEDET Ref: 17/2/3N-362)

Notice is given, in terms of government notice regulations (GNR) 543, 544 and 545 (December 2010) published under the National Environmental Management Act (No. 107 of 1998) (NEMA), section 41(4)(a) of the National Water Act (No. 36 of 2004) (NWA), and section 49 and 50 of GNR 527 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), of the submission of applications for environmental and mining authorisation (EA) as well as a water use license (WUL).

The Proponent, Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) proposes to establish the Block Z Opencast Coal pit (Block Z), between the towns of Kinross, Secunda, Bethal and Kriel within the Nkangala District and the Emalaheni Local Municipalities, in the Mpumalanga Province.

The proposed Block Z project involves the open cast mining of approximately 141 ha, which has an estimated coal reserve of 9 million tons. The proposed mining of Block Z will not increase the existing life of the mine or the projected future mining production rate. IC has an approved Mining Right for its current operations.

Notice is given of intent to submit the necessary applications required in order to obtain the following:

- EA, for GNR 544 listed activities 9, 11, 37, 47 and GNR 545 listed activity 15 and 20 (December 2010) published in terms of the NEMA, from the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET)
- A WUL, in terms Section 21 (c), (g), (i) and (j) of the NWA, from the Department of Water Affairs (DWA)
- A transferal of and new mining right application, and an Environmental Management Programme Report (EMPR) Amendment, in terms section 48 – 56 of GNR 527 of the MPRDA, from the Department of Mineral Resources

WSP was appointed as the independent environmental assessment practitioner (EAP) to undertake a comprehensive Scoping and Environmental Impact Reporting process (S&EIR) inclusive of the amended Mining Right and EMPR Amendment and WUL for the proposed Block Z project. This process includes consultation with parties who may be affected by, or have an interest in, the project. The purpose of this notice is to notify stakeholders of the commencement of the S&EIA process and invite parties wishing to register as stakeholders, in order to offer their comment on the proposed Block Z project, by forwarding their full contact details to Zaffar Hussain (at the below provided details). The period in which to comment has been extended by two weeks to account for the school holidays and will occur from 20 June – 4 August 2014. Registered stakeholders will be forwarded all future correspondence, and notified individually of additional opportunities to participate in the process.

For more information contact:

Zaffar Hussain | Tel: 011 361 1387 | Fax: 011 361 1381 | Address: PO Box 98867, Sloane Park, 2152 | Email: Zaffar.Hussain@wspgroup.co.za

What is stakeholder engagement?

A process in which potential stakeholders are informed about the project and given an opportunity to comment on, or raise issues relevant to the proposed activities.

Who are stakeholders?

Any person, group of persons or organisation interested in and / or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Public Meeting

WSP will be holding a Public meeting in order to provide additional information and detail regarding the proposed Block Z project, and to provide an opportunity for stakeholders to raise their concerns, objections and queries. To participate in this public meeting, please respond with your name, contact details, interest in the project to the contact person provided by 4 August 2014.



Isaziso Senqubo Yombiko Wokubhekwa Kwesimo Nomthelela Kwezemvelo Yephrojekthi Ye-Block Z ehlongozwayo

Umhlongozi: Anglo American Thermal Coal: Isibonelo Colliery

Indawo Okukuyo Iphrojekthi: ~26°18'52.99" S 29°14' 22.94" E

Umhlazivi Wezemvelo: WSP Environmental (Pty) Ltd

IPHROJEKTHI YE-BLOCK Z EHLONGOZWAYO YE-ANGLO AMERICAN THERMAL COAL: ISIBONELO COLLIERY (Irifarensi Ye-MDEDET: 17/2/3N-362)

Kunikezwa isaziso, ngokuvumelana neziqondiso zesaziso sikahulumeni (GNR) 543, 544 no-545 (Disemba 2010) esishicilelwa ngaphansi koMthetho Wokulawulwa Kwezemvelo Kazwelonke (No. 107 ka-1998) (NEMA), isigaba 41(4)(a) soMthetho Wamanzi Kazwelonke (No. 36 ka-2004) (NWA), nesigaba 49 no-50 se-GNR 527 soMthetho Wokuthuthukiswa Kwamaminerali Nezimbiwa-phansi (No. 28 ka-2002) (MPRDA), sokuhanjiswa kwezicelo zesigunyazo sezemvelo nokumba (EA) kanye nelayisensi yokusebenzisa amanzi (WUL).

Umhlongozi, i-Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) uhlongoza ukusungula umgodi wokumba amaLahle Ovulekile (Block Z), phakathi kwamadolobha i-Kinross, i-Secunda, i-Bethal ne-Kriel akuMasipala Wesifunda i-Nkangala noMasipala Wendawo Emalahleni, eSifundazweni SaseMpumalanga.

Iphrojekthi i-Block Z ehlongozwayo ibandakanya ukumba emgodini ovulekile indawo elinganiselwa ku-141 ha, enamalahle alinganiselwa kumathani ayizigidi ezingu-9 angakambiwa. Ukumbiwa okuhlongozwayo kwe-Block Z ngeke kwandise isikhathi sokusetshenziswa kwemayini esikhona noma izinga lokukhiqiza elilindelwe esikhathini esizayo. I-IC ineLungelo Lokumba elivunyiwe lemisebenzi yayo yamanje. Kunikezwa isaziso senhloso yokuhambisa izicelo ezidingekayo ukuze kutholakale lokhu okulandelayo:

- I-EA, yemisebenzi esohlwini ye-GNR 544 okungu-9, 11, 37, 47 nemisebenzi esohlwini ye-GNR 545 okungu-15 no-20 (Disemba 2010) eyashicilelwa ngokuvumelana ne-NEMA, eMnyangweni Wokuthuthukiswa Komnotho, Ezemvelo Nezokuvakasha WaseMpumalanga (MDEDET)
- I-WUL, ngokuvumelana neSigaba 21(c), (g), (i) no-(j) se-NWA, yoMnyango Wezamanzi (DWA)
- Isicelo sokudluliselwa neselungelo lokumba elisha neSichibiyelo soMbiko Wohlelo Lokulawulwa Kwezemvelo (EMPR), ngokuvumelana nesigaba 48 – 56 se-GNR 527 ye-MPRDA ,yoMnyango Wezimbiwa-phansi.

I-WSP iqokwe ukuba ibe umhlaziyi wezemvelo ozimele (EAP) ukuba yenze inqubo ebanzi yoMbiko Wokubhekwa Kwesimo Nomthelela Kwezemvelo (S&EIR) ehlanganisa iLungelo Lokumba elichitshiyelwe neSichibiyelo Se-EMPR ne-WUL yephrojekthi i-Block Z ehlongozwayo. Le nqubo ihlanganisa ukuxoxisana nalabo okungenzeka bathintwe yile phrojekthi noma abafisa ukubamba iqhaza kuyo. Injongo yalesi saziso ukwazisa ababambiqhaza ngokuqala kwenqubo ye-S&EIA kanye nokumema labo abafisa ukubhalisa njengababambiqhaza, ukuze baveze izimvo zabo kule phrojekthi ye-Block Z ehlongozwayo, ngokuthumela imininingwane yokuxhumana nabo egcwele ku-Zaffar Hussain (kule mininingwane enikezwe ngezansi). Inkathi yokuveza izimvo isinwetshwe ngamaviki amabili ngenxa yamaholidi esikole futhi izoqala mhla ka-20 Juni – 4 Agasti 2014. Ababambiqhaza ababhalisile bayothunyelelwa zonke izincwadi zokuxhumana nabo eziyobhalwa esikhathini esizayo, futhi baziswe ngabodwana ngamanye amathuba okubamba iqhaza kule nqubo.

Ukuze uthole ulwazi oluthe xaxa, thintana no-:

Zaffar Hussain | Ucingo: 011 361 1387 | Ifeksi: 011 361 1381 | Ikheli: P.O.

Box 98867, Sloane Park, 2152 | I-imeyili: Zaffar.Hussain@wspgroup.co.za

Kuyini ukuxoxisana nababambiqhaza?

Inqubo lapho labo abangase babe ababambiqhaza betshelwa khona nge-phrojekthi futhi banikezwe ithuba lokuveza izimvo zabo ngayo, noma baphakamise izindaba ezithinta imisebenzi ehlongozwayo.

Obani ababambiqhaza?

Yinoma yimuphi umuntu, iqembu labantu noma inhlango efisha ukubamba iqhaza kanye/noma ethintekayo kulo msebenzi, kanye nanoma yiluphi uhlaka lukahulumeni olungase lwengamele noma iyiphi ingxenye yomsebenzi.

Umhlangano Womphakathi

I-WSP izobamba umhlangano womphakathi ukuze inikeze ulwazi oluthe xaxa nemininingwane mayelana nephrojekthi i-Block Z ehlongozwayo, futhi inikeze ababambiqhaza ithuba lokuba baphakamise izinto ezibakhathazayo, ukuphikisa nemibuzo yabo. Ukuze ubambe iqhaza kulo mhlangano womphakathi, sicela uphendule ngokuthumela igama lakho, imininingwane yokuxhumana nawe, neqhaza ofisa ukulibamba kule phrojekthi kumuntu okungaxhunyanwa naye, engakedluli umhla ka-4 Agasti 2014.

Kennisgewing van 'n Bestekopname- en Omgewingsimpak-verslagdoeningsproses vir die voorgestelde Blok Z-projek

Projekvoorsteller: Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn

Projekligging: ~26°18'52.99" S 29°14' 22.94" O

Omgewingsevalueringspraktisyn: WSP Environmental (Edms.) Bpk.

ANGLO AMERICAN STOOMSTEENKOOL: ISIBONELO STEENKOOLMYN VOORGESTELDE BLOK Z-PROJEK (MDEDET Verw.: 17/2/3N-362)

Kennis geskied hiermee ingevolge regulasies kragtens Staatskennisgewing R543, R544 en R545 (Desember 2010) gepubliseer ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), Artikel 41(4)(a) van die Nasionale Waterwet (Wet 36 van 2004) (NWA) en Artikel 49 en 50 van Staatskennisgewing R527 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA) van die indiening van aansoeke om omgewings- en mynboumagtiging (OM) en van 'n watergebruiklisensie (WUL).

Die Projekvoorsteller, Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn (AATC: IC) stel die oprigting voor van die Blok Z Oopgroef Steenkoolmyn (Blok Z), tussen Kinross, Secunda, Bethal en Kriel in die Nkangala Distriks- en die Emalaheni Plaaslike Munisipaliteit in die Mpumalangaprovincie.

Die voorgestelde Blok Z-projek behels die oopgroefmynbou van sowat 141 hektaar, wat oor 'n beraamde steenkoolreserwe van 9 miljoen ton beskik. Die voorgestelde mynbou van Blok Z sal nie die bestaande lewensduur van die myn of die geprojekteerde toekomstige mynbouproduksie verleng nie. IC beskik oor 'n goedgekeurde Mynreg vir sy huidige bedrywighede.

Kennis geskied van die voorneme om die nodige aansoeke in te dien ten einde die volgende te bekom:

- OM, vir Staatskennisgewing R544 gelyste aktiwiteit 9, 11, 37, 47 en Staatskennisgewing R545 gelyste aktiwiteit 15 en 20 (Desember 2010) gepubliseer ingevolge NEMA, van Mpumalanga se Departement van Ekonomiese Ontwikkeling, Omgewingsake en Toerisme (MDEDET)
- 'n WUL, ingevolge Artikel 21(c), (g), (i) en (j) van die NWA, van die Departement van Waterwese (DWA)
- 'n Oordrag en 'n nuwe aansoek om mynreg en 'n Omgewingsbestuursprogram-verslag (OBPV) Wysiging ingevolge Artikel 48 – 56 van Staatskennisgewing R527 van die MPRDA, van die Departement van Minerale Hulpbronne.

WSP is aangestel as die onafhanklike omgewingsevalueringspraktisyn (OEP) ten einde 'n omvattende Bestekopname- en Omgewingsimpak-verslagdoeningsproses (B&OIV) te onderneem, wat 'n gewysigde Mynreg en 'n OBPV-wysiging en WUL vir die voorgestelde Blok Z-projek insluit. Hierdie proses sluit raadpleging met partye in wat deur die projek geraak kan word of 'n belang daarin het. Die doel van hierdie kennisgewing is om belanghebbendes in kennis te stel van die aanvang van die B&OIE-proses en om partye uit te nooi wat as belanghebbendes wil registreer ten einde hul kommentaar oor die voorgestelde Blok Z-projek te lewer deur hul volledige kontakbesonderhede aan Zaffar Hussain (by die kontakbesonderhede hieronder). Die tydperk waartydens kommentaar gelewer kan word is met twee weke verleng om voorsiening te maak vir die skoolvakansie en sal strek vanaf 20 Junie tot 4 Augustus 2014. Geregistreerde belanghebbendes sal alle toekomstige korrespondensie ontvang en verwittig word van bykomende geleenthede om aan die proses deel te neem.

Vir meer inligting, tree in verbinding met:

Zaffar Hussain | Tel: 011 361 1387 | Faks: 011 361 1381 | Adres: Posbus 98867, Sloanepark, 2152 | E-pos: Zaffar.Hussain@wspgroup.co.za

Wat is skakeling met belanghebbendes?

'n Proses waartydens potensiële belanghebbendes ingelig word oor die projek en 'n geleentheid kry om kommentaar te lewer oor, of vraagstukke te opper wat tersaaklik is tot die voorgestelde aktiwiteite.

Wie is belanghebbendes?

Enige persoon, groep of organisasie wat belangstel in en/of geraak word deur 'n aktiwiteit; en enige staatsinstansie wat jurisdiksie oor enige aspek van die aktiwiteit mag hê.

Openbare Vergadering

WSP sal 'n openbare vergadering hou ten einde bykomende inligting en besonderhede betreffende die voorgestelde Blok Z-projek te bied en om belanghebbendes 'n geleentheid te bied om hul knelpunte, besware en navrae te opper. Ten einde aan hierdie openbare vergadering deel te neem, moet u asseblief u naam, kontakbesonderhede en belang by die projek teen 4 Augustus 2014 aan die kontakpersoon verstrek.

Emalahleni Local Municipality



Isibonelo Colliery Reception / Front Gate



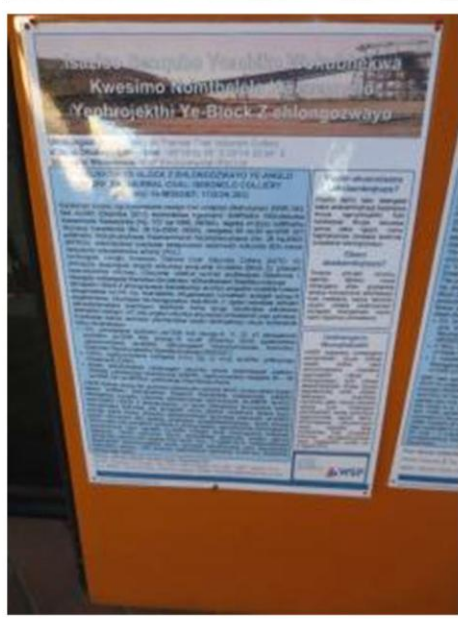
Isibonelo Colliery Reception / Front Gate...



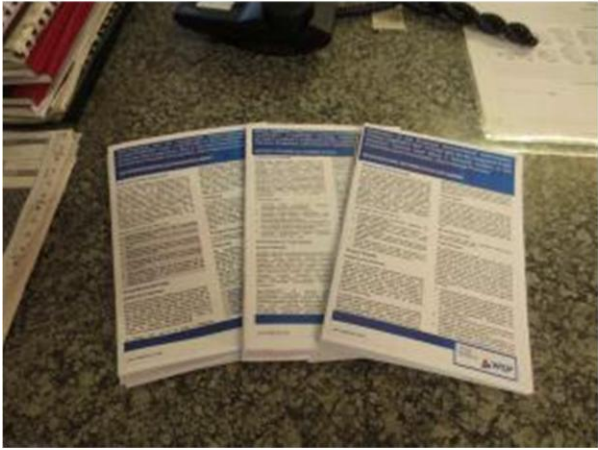
Isibonelo Colliery Reception/Front Gate



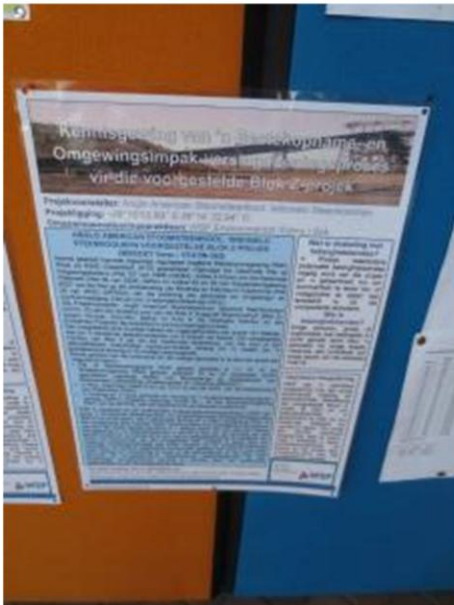
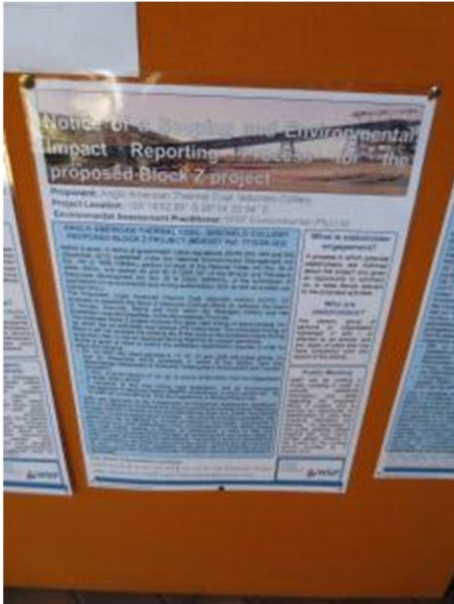
Secunda Library



Sasol Plant Offices



Secunda Library



Trichardt (Intersection of Barney Molokwane & unnamed road)





Tweeddraai Accommodation



Notification of the Proposed Environmental Authorisation Process (MDEDET Ref: 17/2/3N-362) for the proposed Anglo American Thermal Coal: Block Z Isibonelo Colliery in the Emalaheni local municipality, Mpumalanga Province

BACKGROUND INFORMATION DOCUMENT

Purpose of this Document

The intention of this background information document (BID) is to invite you (as a key stakeholder) to participate in the stakeholder consultation process for the environmental authorisation and planning phase of the proposed Anglo American Thermal Coal: Isibonelo Colliery (AATC: IC) Block Z Opencast Coal pit (Block Z). WSP Environmental (Pty) Ltd (WSP) has been appointed by IC as the independent Environmental Assessment Practitioner (EAP) to undertake a comprehensive Scoping and Environmental Impact Reporting (S&EIR) process, inclusive of an Environmental Management Programme Report (EMPR) Amendment and Water Use License application (WULA), for the proposed Block Z.

The purpose of this document is to:

- Provide background information regarding the proposed Block Z project
- Provide an outline of the process being followed
- Inform stakeholders of their rights and responsibilities regarding participation in certain parts of the process
- Assist stakeholders in determining whether they are interested in and/or affected by the proposed Block Z project
- Assist stakeholders to formulate comments in a manner that will ensure that they can be afforded due attention in certain parts of the process

Project Details

Background and Rationale

Coal is vital for economic development and contributes greatly to employment within the local region. The international demand for coal is currently at an all-time high and even with the increased implementation of alternative energy sources; demand is expected to increase in the coming years. IC has the potential to support the local and national economy by providing jobs directly and indirectly, as well as providing sustained coal supply.

In October 2003 IC and Sasol entered into a Coal supply agreement that provides the supply of 100 Mt of coal to Sasol Synthetic Fuels (SSF) gasification plants in Secunda, Mpumalanga Province. The coal mined from the proposed Block Z area will serve to fulfil the supply

agreement between AATC: IC and SSF. IC was to operate over a mine life of approximately 21 years. The proposed Block Z will not increase the current expected life of mine, but will instead operate concurrently to existing operations.

Project Location

IC is situated approximately 60 km south of Witbank and 8 km south of the town of Kriel in the Mpumalanga Province; more specifically it is located between the towns of Kinross, Secunda, Bethal and Kriel. The area falls within the Nkangala District Municipality and the Emalaheni Local Municipality. The Block Z area is west of (adjacent) to the current IC mining activities, east of the Kriel Colliery open cast and underground operations and north of the Sasol's underground Syferfontein coal mine.

Surrounding Land Use

The surrounding land use comprises predominantly mining and agricultural areas.

Project Overview

The proposed Block Z project involves the open cast mining of approximately 141 ha in Block Z, which has an estimated coal reserve of 9 million tons. It is understood that the proposed mining of Block Z will not increase the existing life of the mine; however it will increase its annual production rate. IC has an approved EMPR and mining right obtained under the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA); however, these do not cover the Block Z area. Therefore, in order to commence with the proposed mining activities at Block Z, IC is required to obtain the following:

- Environmental authorisation for activities identified in terms of Government Notice Regulation (GNR) 544 and 545 (December 2010) published in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA) from the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET)
- A water use license (WUL) in terms of the National Water Act (No. 36 of 2004) (NWA) from the Department of Water Affairs (DWA)
- A transferal of and new mining right application, and an EMPR Amendment in terms the Mineral and Petroleum Resources Development Act (No. 28 of

Legal Framework

As noted above, a S&EIR (for environmental authorisation) an EMPR Amendment (for the mining right application) process (as prescribed by the NEMA and the MPRDA) must be simultaneously applied along the WUL application.

EMPR Amendment and Mining Rights

An amendment in terms of the MPRDA is required by GNR 527 (2004) of the MPRDA. As part of the authorisation process, WSP will be compiling a scoping report, environmental impact assessment (EIA) and EMPR Amendment in accordance with the MPRDA. Similarly, WSP will be undertaking the stakeholder engagement process in accordance with Section 3 of GNR 527 of the MPRDA, and considering Section 22 of the MPRDA requiring all applicants for mining rights to consult with stakeholders related to the proposed Block Z project and proposed site.

Environmental Authorisation

The proposed activity is a scheduled activity in terms of the NEMA, as amended, and the EIA Regulations, 2010 (GNR 544, 545, and 546). Activities listed in GNR 544 and 546 require a Basic Assessment process to be undertaken, while activities listed in GNR 545 are subject to a S&EIR process. The proposed Block Z project comprises activities listed in both GNR 544 and GNR 545, and therefore a S&EIR process is required (MDEDET Ref: 17/2/3N-362). Similarly to the MPRDA requirements, Chapter 6 of the GNR 543 requires the completion of and reporting on a stakeholder engagement process. The listed activities which may be relevant to the proposed Block Z *inter alia* include:

GNR 544 (18 June 2010) (requiring a Basic Assessment Process):

■ Activity 9:

The construction of facilities or infrastructure exceeding 1 000 m in length for the bulk transportation of water, sewage or stormwater, (i) with an internal diameter of 0.36 m or more; or (ii) with a peak throughput of 120 l/s or more.

■ Activity 11:

The construction of canals; channels; bridges; dams; weirs; bulk storm water outlet structures; marinas; jetties exceeding 50 square metres in size; slipways exceeding 50 square metres in size; buildings exceeding 50 square metres in size; or infrastructure or structures covering 50 square metres or more; where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.

■ Activity 37

The expansion facilities or infrastructure for the bulk transportation of water, sewage or storm water, where, (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more.

■ Activity 47:

The widening of a road by more than 6m, or the lengthening of a road by more than 1 km. (i) where the existing reserve is wider than 13,5 m; or (ii) where no reserve exists, where the existing road is wider than 8 m.

GNR 545 (18 June 2010) (requiring a S&EIR Process):

■ Activity 15

Physical alteration of undeveloped land for industrial use where the total area to be transformed in greater than 20 ha.

■ Activity 20

Any activity which requires a mining right or renewal thereof as contemplated in sections 22 and 24 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

Water Use License Application

The NWA provides for fundamental reformation of legislation relating to water resources and use. A WUL is required by Section 21 of the NWA. The WUL activities and requirements will be completed concurrently to and integrated with the NEMA and MPRDA S&EIR and stakeholder engagement processes. The water use activities identified as being potentially relevant to the proposed Block Z project are

- Section 21 (c): Impeding or diverting the flow of water in a water course.
- Section 21 (i): Altering the bed, bank, course or characteristics of a watercourse
- Section 21(j): 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
- Section 21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource

What does the Scoping & Environmental Impact Assessment (S&EIR) Process consist of?

S&EIR Process

The S&EIR process consists of a Scoping phase and EIA phase. WSP will undertake an integrated process in order to ensure compliance with legislation including the MPRDA, NEMA and NWA.

The S&EIR process involves the contemplation, examination, assessment and reporting of the proposed

Block Z project in order to identify the potential impacts on the environment, and develop mitigation measures in order to reduce the negative impacts thereby assisting in a sustainable approach to the mining activity. The following will be undertaken as part of the S&EIR process:

Phase 1: Scoping

- **Identification of Issues:** These issues include both social and environmental. Attempt to identify constraints and possible alternatives to the proposed Block Z project that reduce impacts on the environment through the use of expert knowledge, literature reviews, site visits and thorough consultation with authorities and the public. An open and transparent consultation process is performed to facilitate the inclusion of stakeholders' concerns in the decision-making process

Phase 2: Environmental Impact Reporting

- **Specialist Studies:** A number of specialist studies are to be undertaken during the course of the proposed Block Z project. From these studies baseline conditions can be described and understood and anticipated impacts identified. As part of the specialist studies scopes of work, the impacts will be rated in order to ascertain the significance of the identified potential impacts, and recommendations will be formulated. These recommendations will be incorporated into the EMPR Amendment for the proposed Block Z project.
- **Evaluation of Potential Alternatives:** Reasonable alternatives will be identified and evaluated. Alternatives may consist of alternative positioning of the infrastructure, design and construction and mining process, as well as the 'no-go' option.
- **Evaluation of Impacts:** The significance of environmental and social issues will be evaluated in terms of potential impacts, their expected extent, intensity, duration and probability of occurrence.
- **Mitigation and Management Measures:** Measures to manage and minimise impacts to acceptable levels and maximise the benefits associated with proposed Block Z project will be identified.

Stakeholder Engagement Process

The stakeholder engagement process is an integral part of the S&EIR, and continues throughout this process.

The first steps involve notifying the public and previously identified stakeholders (also known as interested and/or affected parties [I&APs]) of the proposed Block Z project and invite all stakeholders to the public meetings and to ensure a transparent process and will include details of the proposed Block Z project as well as instructions on how to register as a stakeholder. This stakeholder engagement process is further detailed below.

Step 1: Notify the Authority of S&EIR Process

- Submit an application for S&EIR to the delegated competent authorities

Step 2: Notify Stakeholders and Identify Issues

- Notify stakeholders of the proposed Block Z project via the following media:
 - Notification Letters
 - Site Notices placed in and around the proposed Block Z project area
 - Newspaper advertisements in The Sowetan, The Echo Ridge
- Provide stakeholders with a BID on the proposed Block Z project, including a locality map and a registration/issues form. Stakeholders are required to register and declare their interest in the proposed Block Z project in order to receive further project information. The period in which to comment has been extended by two weeks to account for the school holidays and will occur from 20 June – 4 August 2014.
- Public meetings will be conducted with registered stakeholders during the Scoping and EIA phases

Step 3: Public Review of Draft Scoping Report

- Issues and concerns raised by registered stakeholders are contained in a Comment Response Report for inclusion in the Draft Scoping Report
- The report is released for a 40 day comment period
- This report will also include the Plan of Study for Environmental Impact Assessment (PoS for EIA) and EMPR Amendment
- All registered stakeholders on the proposed Block Z project database will be notified in writing of the opportunity to comment
- A public meeting, to which all stakeholders are invited, will be held during the review period
- Copies of the report will be made available at public venues as well as the WSP website

Step 4: Final Scoping Report

- Comments received from registered stakeholders during the review process are considered in the compilation of the Final Scoping Report before it is submitted to the competent authorities for their review and approval
- The Final Scoping Report will be released for a 30 day public review period (concurrent to the authority review period)
- All stakeholders on the proposed Block Z project database will be notified in writing of the authorities decisions on the Final Scoping Report
- The Final Scoping Report will include the PoS for EIA and Terms of Reference for specialist studies to be undertaken as part of the environmental impact report (EIR) and EMPR Amendment

Step 5: Draft EIR/EMPR for Public Review

- Compilation and release of a combined Draft EIR/EMPR for a 40 day review period by stakeholders
- All comments received from stakeholders via meetings held or via written correspondence will be consolidated into the updated Comment and Response Report
- The Comment and Response Report will indicate the nature of the comment, when and who raised the comment as well as indicate how the comment received has been considered in the Final EIR/EMPR

Step 6: Final EIR/EMPR

- The Final EIR/EMPR, including the Comment Response Report, will be compiled for submission to the competent authorities for decision making
- The Final EIR/EMPR will be released for a 30 day public review period (concurrent to the authority review period)

Step 7: Public Notification of Environmental Authorisation and Appeal Period

- All registered stakeholders will be notified in writing regarding the environmental authorisations for the proposed Block Z project and the appeal period, as well as the manner of appeal

The environmental authorisations and the appeal period will also be advertised in local newspapers.

course of the proposed Block Z project. Should you register as a stakeholder you will be invited to attend these meetings

- By reviewing the draft Scoping Report, EIR and EMPR Amendment within the relevant review periods and sending your comments to WSP

Aim of the Public Participation Process

- Inform I&APs and Registered Stakeholders of the Proposed Project
- Identify Issues, Comments and Concerns Raised by Registered Stakeholders
- Promote transparency and an Understanding of the Proposed Project and its Consequences
- Provide a Structure for Liaison and Communication with Registered Stakeholders
- Assist in Identifying Potential Environmental Impacts

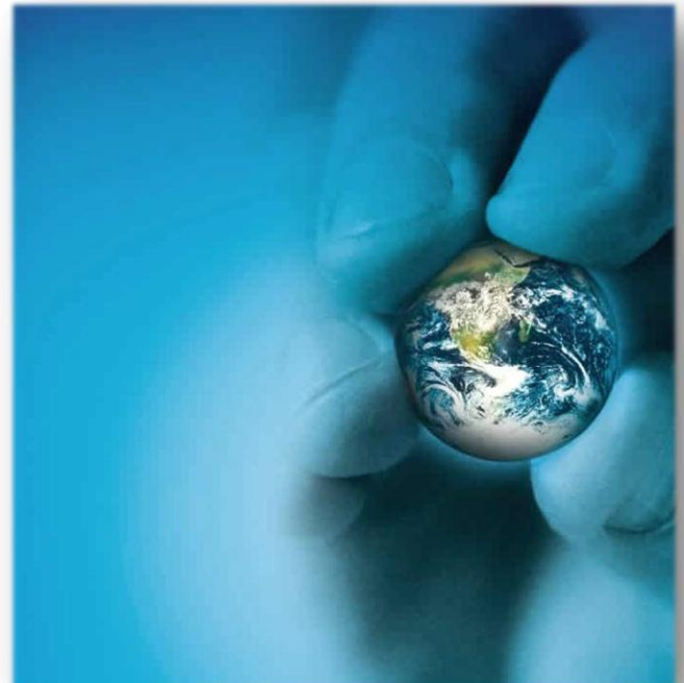
Why is Your Participation Important?

Participation is in everyone's best interest because:

- It provides opportunities for stakeholders and the authorities to obtain clear, accurate and understandable information about the proposed Block Z project
- It provides members of the public with the opportunity to provide comments (both positive and negative) regarding the environmental impacts of the proposed Block Z project
- It provides stakeholders with the opportunity to suggest ways for reducing or mitigating any negative impacts of the proposed Block Z project, or for enhancing its benefits
- It will enable Isibonelo Colliery to incorporate the needs, preferences and values of stakeholders into their decisions
- It contributes toward maintaining a healthy, vibrant democracy

How can you get Involved?

- By responding (by phone, fax or e-mail) to our invitation for your involvement
- By mailing, faxing or e-mailing the attached comment form to WSP
- By attending the meetings to be held during the



The Roles and Responsibilities of the Stakeholder

Stakeholders have the right to bring to the attention of the competent authority any issues that they believe may be of significance to the consideration of the application.

The rights of stakeholders are qualified by certain obligations, namely:

- Stakeholders must ensure that their comments are submitted within the timeframes that have been approved by the competent authority, or within any extension of a timeframe agreed by the applicant or EAP
- A copy of comments submitted directly to the competent authority must be served on the applicant or EAP
- Any direct business, financial, personal or other interest that they might have in the approval or refusal of the application must be disclosed

The roles of stakeholders in a stakeholder engagement process usually include one or more of the following:

- Assisting in the identification and prioritisation of issues that need to be investigated
- Making suggestions on alternatives and means of preventing, minimising and managing negative impacts and enhancing proposed Block Z project benefits
- Assisting in or commenting on the development of mutually acceptable criteria for the evaluation of decision options
- Contributing information on public needs, values and expectations
- Contributing local and traditional knowledge
- Verifying that their issues have been considered

In order to participate effectively, stakeholders should:

- Become involved in the process as early as possible and register as a stakeholder
- Advise the EAP of other stakeholders who should be consulted
- Contribute towards the design of the stakeholder engagement process (including timeframes) to ensure that it is acceptable to all stakeholders
- Follow the process once it has been accepted
- Read the material provided and actively seek to understand the issues involved
- Give timely responses to correspondence
- Be respectful and courteous towards other stakeholders
- Refrain from making subjective, unfounded or ill-informed statements
- Recognise that the process is confined to issues that are directly relevant to the application
- Assist with information that will contribute to a thorough study

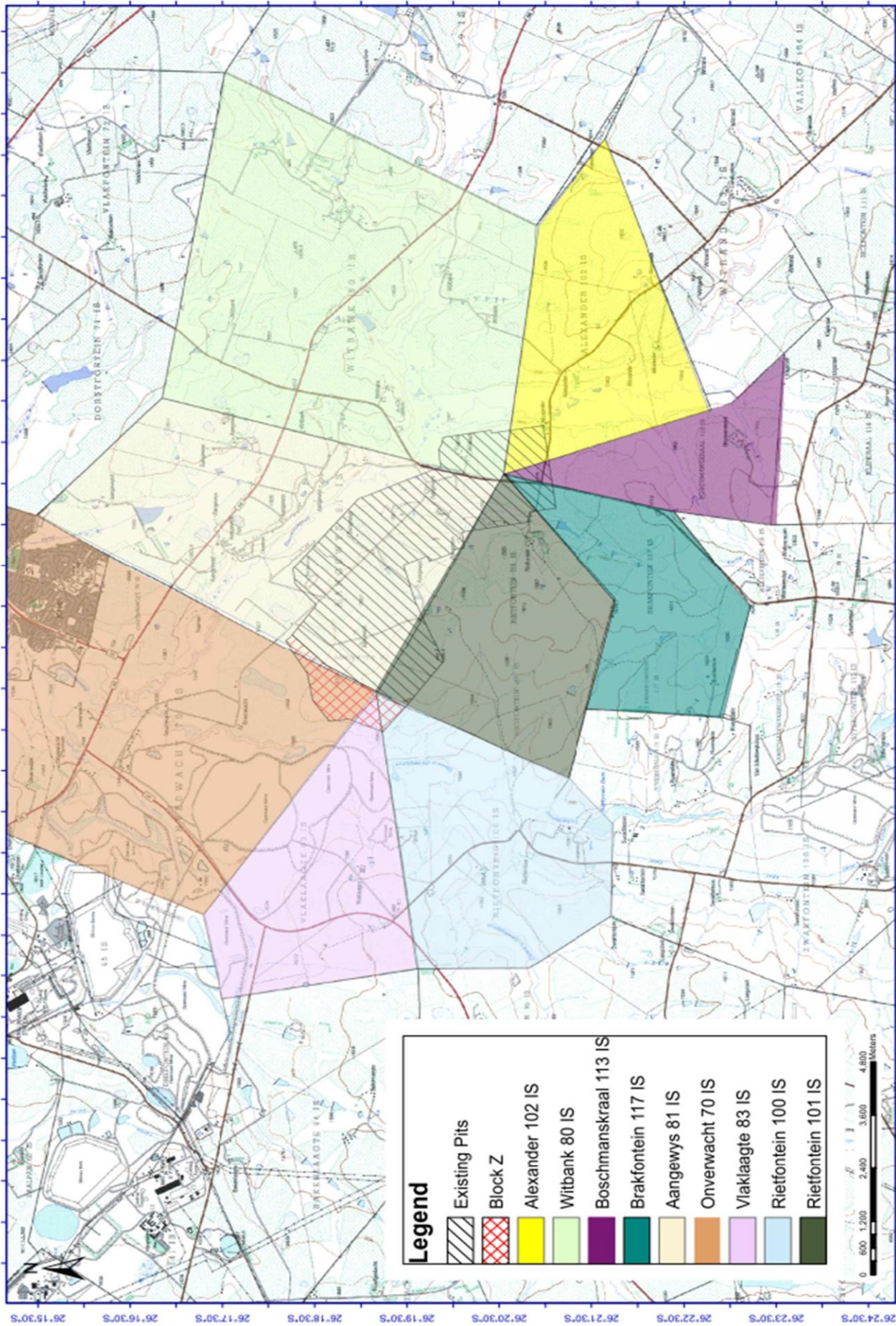
To register as a stakeholder on the project database, kindly complete the attached form and return it to the relevant WSP representative as detailed below:

WSP was appointed by AATC: IC as the EAP to undertake the environmental authorisation processes for the proposed Block Z and to facilitate stakeholder engagement.

To become a registered stakeholder and ensure all comments and queries regarding this proposed Block Z project are accurately documented and addressed, please forward your contact details and comments (by 4 August 2014) on the attached *response sheet* to:

Consultant: Zaffar Hussain
Company: WSP Environment (Pty) Ltd
Address: PO Box 98867, Sloane Park, 2152
Tel: +27 11 361 1387
Fax: +27 11 361 1381
Email: Zaffar.Hussain@WSPGroup.co.za





<p>Anglo American Thermal Coal: Isibonelo Colliery</p> <p>Farm Boundaries</p>	<p>Data Source: South African Department of Rural Development and Land Reform - Chief Directorate: National Geo-spatial Information</p> <p>Projection: Geographic - WGS1984</p>	<p>Project: Proposed Block Z Project</p> <p>Project No: 39644</p> <p>Drawn by: Jared O'Brien</p> <p>Reviewed by: Janna Bedford-Owen</p>	<p>Date: 28 March 2014</p> <p>Figure No.</p>
	<p>WSP www.wspenvironmental.co.za</p>		

Registration and Comments Sheet

**THE PROPOSED ANGLO AMERICAN THERMAL COAL: BLOCK Z ISIBONELO COLLIERY,
MPUMALANGA
(MDEDET Reference: 17/2/3N-362)**

To be a registered stakeholder and ensure all comments and queries regarding this project are accurately documented and addressed please forward your comments (by 4 August 2014) and contact details with the attached response sheet to:

Zaffar Hussain
WSP Environmental (Pty) Ltd
Address: P O Box 98867, Sloane Park, 2152
Tel: +27 11 361 1387
Fax: +27 11 361 1381
Email: Zaffar.Hussain@WSPGroup.co.za

Please insert your personal details below:

Name:				
Organisation & Designation:				
Address:				
Tel:				
Fax:				
E-mail:				
I would like my notifications by: (please tick the appropriate box)	Letter (mail)	E-mail	Fax	Telephone

In terms of GNR 543 (EIA process regulations) please disclose below any direct business, financial, personal or other interest that you may have in the granting or rejection of the application for environmental authorisation:

.....

Please list your interest in the project and comments below:

.....

 Signature

 Date



Kennisgewing van die voorgestelde Omgewingsmagtigingsproses (MDEDET Verw.: 17/2/3N-362) vir die voorgestelde Anglo American Stoomsteenkool: Blok Z Isibonelo Steenkoolmyn in die Emalaheni Plaaslike Munisipaliteit, Mpumalangaprovincie

AGTERGRONDINLIGTINGSDOKUMENT

Doel van hierdie Dokument

Die doel van hierdie agtergrondinligtingsdokument (AID) is om u (as 'n belangrike belanghebbende) te nooi om deel te neem aan die raadplegingsproses met belanghebbendes vir die omgewingsmagtiging en beplanningsfase van die voorgestelde Anglo American Stoomsteenkool: Isibonelo Steenkoolmyn (AATC: IC) Blok Z Oopgroef Steenkoolmyn (Blok Z). WSP Environmental (Edms.) Bpk. (WSP) is deur IC aangestel as die onafhanklike Omgewingsevalueringspraktisyn (OEP) om 'n omvattende Bestekopname en Omgewingsimpak-verslagdoeningsproses (B&OIV-proses) te onderneem, wat 'n wysiging van die Omgewingsbestuursprogram-verslag (OBPV) en 'n Aansoek om 'n Watergebruiklisensie (WULA), vir die voorgestelde Blok Z insluit.

Die doel van hierdie dokument is om:

- agtergrondinligting betreffende die voorgestelde Blok Z-projek te bied;
- 'n omskrywing te bied van die proses wat gevolg word;
- belanghebbendes van hul regte en verantwoordelikhede betreffende deelname aan sekere aspekte van die proses te verwittig;
- belanghebbendes te help bepaal of hulle belangstel in en/of geaffekteer word deur die voorgestelde Blok Z-projek; en
- belanghebbendes te help om kommentaar op so wyse te formuleer dat dit sal verseker dat dit behoorlike aandag in sekere gedeeltes van die proses sal geniet.

Projekbesonderhede

Agtergrond en Rasionaal

Steenkool is noodsaaklik vir ekonomiese ontwikkeling en dra grootliks by tot werkskepping in die plaaslike streek. Die internasionale vraag na steenkool is tans groter as ooit, en selfs met die groeiende implementering van alternatiewe kragbronne, word verwag dat die vraag in die komende jare sal toeneem. IC het die potensiaal om die plaaslike en nasionale ekonomie te steun deur direkte en indirekte werksgeleenthede, sowel as volgehoue steenkoolvoorsiening te verskaf.

In Oktober 2003 het IC en Sasol 'n Steenkool-

verskaffingsooreenkoms aangegaan wat voorsiening maak vir die verskaffing van 100 Mt steenkool aan Sasol Synthetic Fuels (SSF) gasvormingsaanlegte in Secunda, Mpumalangaprovincie. Die steenkool wat uit die voorgestelde Blok Z-gebied gemyn word, sal dien om aan die verskaffingsooreenkoms tussen AATC: IC en SSF te voldoen. IC sou oor 'n mynleef tyd van sowat 21 jaar bedryf word. Die voorgestelde Blok Z sal nie die huidige verwagte lewensduur van die myn verleng nie, maar sal eerder samelopend met bestaande bedrywighede geskied.

Projekligging

IC is sowat 60 km suid van Witbank en 8 km suid van die dorp Kriel in die Mpumalangaprovincie geleë; meer spesifiek tussen Kinross, Secunda, Bethal en Kriel. Die gebied is in die Nkangala Distriksmunisipaliteit en die Emalaheni Plaaslike Munisipaliteit geleë. Die Blok Z-gebied is wes van (aangrensend tot) die huidige IC mynboubedrywighede, oos van die Kriel Oopgroef-steenkoolmyn en ondergrondse bedrywighede en noord van Sasol se ondergrondse Syferfontein Steenkoolmyn geleë.

Omliggende Grondgebruik

Die omliggende grondgebruik bestaan hoofsaaklik uit mynbou- en landbougebiede.

Projekoorsig

Die voorgestelde Blok-Z projek behels die oopgroepmynbou van sowat 141 ha in Blok Z, wat 'n beraamde steenkoolreserwe van 9 miljoen ton het. Die gedagte is dat die voorgestelde mynbou van Blok Z nie die bestaande lewensduur van die myn sal verleng nie; dit sal egter die jaarlikse produksiekoers verhoog. IC beskik oor 'n goedgekeurde OBPV en mynreg wat ingevolge die Wet op Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA) bekom is; dit dek egter nie die Blok Z-gebied nie. Derhalwe, ten einde met die voorgestelde mynboubedrywighede in Blok Z te begin, moet IC die volgende bekom:

- Omgewingsmagtiging vir aktiwiteite wat geïdentifiseer is ingevolge Staatskennisgewing R544 en R545 (Desember 2010) gepubliseer kragtens die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA) van die Mpumalanga Departement van Ekonomiese Ontwikkeling, Omgewingsake en Toerisme (MDEDET).

- 'n Watergebruiklisensie (WUL) ingevolge die Nasionale Waterwet (Wet 36 van 2004) (NWA) van die Departement van Waterwese (DWA).
- 'n Oordrag van en 'n nuwe aansoek om mynreg en 'n OBPV-wysiging ingevolge die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA) van die Departement van Minerale Hulpbronne.

Wetlike Raamwerk

Soos hierbo genoem, moet daar tesame met die WUL-aansoek aansoek gedoen word vir 'n proses vir die B&OIV (vir omgewingsmagtiging) en 'n OBPV-wysiging (vir die aansoek om mynreg) (soos bepaal deur NEMA en die MPRDA).

OBPV-wysiging en Mynregte

'n Wysiging ingevolge die MPRDA word deur Staatskennisgewing R527 (2004) van die MPRDA vereis. As deel van die magtigingsproses, sal WSP 'n bestekopnameverslag, 'n omgewingsimpakevaluering (OIE) en 'n OBPV-wysiging ingevolge die MPRDA saamstel. Eweneens sal WSP die proses onderneem om met belanghebbendes te skakel, ingevolge Artikel 3 van Staatskennisgewing R527 van die MPRDA en met inagneming van Artikel 22 van die MPRDA wat vereis dat alle applikante om mynregte belanghebbendes met betrekking tot die voorgestelde Blok Z-projek en voorgestelde terrein moet raadpleeg.

Omgewingsmagtiging

Die voorgestelde aktiwiteit is 'n geskeduleerde aktiwiteit ingevolge die NEMA, soos gewysig, en die OIE-regulasies, 2010, (Staatskennisgewing R544, R545 en R546). Aktiwiteite wat in Staatskennisgewing R544 en R546 gelys is, vereis dat 'n Basiese Ewalueringsproses onderneem moet word, terwyl aktiwiteite wat in Staatskennisgewing R545 gelys is, onderhewig is aan 'n B&OIV-proses. Die voorgestelde Blok Z-projek behels aktiwiteite wat in beide Staatskennisgewing R544 en R545 gelys is, derhalwe word 'n B&OIV-proses vereis (MDEDET Verw.: 17/2/3N-362). Net soos met die MPRDA-vereistes, verlang Hoofstuk 6 van Staatskennisgewing R543 die voltooiing van en verslagdoening oor 'n proses van die betrokkenheid van belanghebbendes. Die gelyste aktiwiteite wat van toepassing kan wees vir die voorgestelde Blok Z sluit onder andere in:

Staatskennisgewing R544 (18 Junie 2010) (wat 'n Basiese Ewalueringsproses vereis):

■ Aktiwiteit 9:

Die oprigting van aanlegte of infrastruktuur wat 1 000 m in lengte oorskry vir die grootmaatvervoer wat water, riool of stormwater, (i) met 'n interne deursnee van 0.36 m of meer; of (ii) met 'n piekdeurvoer van 120 l/s of meer.

■ Aktiwiteit 11:

Die bou van kanale, slote, brûe, damme, walle, grootmaat stormwateruitlaatstrukture, marinas, landingshowe groter as 50 vierkantmeter,

skeepshellings groter as 50 vierkantmeter, geboue groter as 50 vierkantmeter of infrastruktuur of strukture wat 50 vierkantmeter of meer beslaan, waar sodanige oprigting in 'n waterloop of binne 32 meter vanaf 'n waterloop af plaasvind, gemeet van die rand van die waterloop, behalwe waar sodanige oprigting agter die ontwikkeling se bougrens sal voorkom.

■ Aktiwiteit 37:

Die uitbreiding van aanlegte of infrastruktuur vir die grootmaatvervoer van water, riool of stormwater waar (a) die aanleg of infrastruktuur met meer as 1 000 m in lengte sal uitbrei; of (b) waar die deurvoervermoë van die aanleg of infrastruktuur met 10% of meer vermeerder sal word.

■ Aktiwiteit 47:

Die verbreding van 'n pad met meer as 6 m of die verlenging van 'n pad met meer as 1 km, (i) waar die bestaande reserwe wyer as 13,5 m is; of (ii) waar geen reserwe bestaan nie, waar die bestaande pad wyer as 8 m is.

Staatskennisgewing R545 (18 Junie 2010) (wat 'n B&OIV-proses vereis):

■ Aktiwiteit 15:

Die fisiese verandering van onontwikkelde grond vir nywerheidsgebruik waar die totale oppervlak wat getransformeer gaan word, groter as 20 ha is.

■ Aktiwiteit 20:

Enige aktiwiteit wat 'n mynreg of die hernuwing van 'n mynreg verlang soos beoog in Artikel 22 en 24 onderskeidelik van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne, Wet 2002 (Wet 28 van 2002).

Aansoek om 'n Watergebruiklisensie (WULA)

Die NWA maak voorsiening vir fundamentele hervorming van wetgewing betreffende waterhulpbronne en -gebruik. 'n WUL word deur Artikel 21 van die NWA vereis. Die WUL-aktiwiteite en vereistes sal samelopend voltooi word en met die NEMA en MPRDA se B&OIV en skakelingsprosesse met belanghebbendes geïntegreer word.

Die aktiwiteite rondom watergebruik wat as potensieel van toepassing op die voorgestelde Blok Z-projek geïdentifiseer is, sluit in:

■ Artikel 21(c): Belemmering of omleiding van die vloei van water in 'n waterloop.

■ Artikel 21(i): Die verandering van die bodem, oewer, loop of eienskappe van 'n waterloop.

■ Artikel 21(j): Die verwydering, loslating of wegdoening van ondergrondse water indien dit nodig is vir die doeltreffende voortsetting van 'n aktiwiteit of vir die veiligheid van mense.

■ Artikel 21(g): Die wegdoening van afval op so 'n wyse dat dit 'n waterhulpbron nadelig kan beïnvloed.

Waaruit bestaan die Bestekopname- en Omgewingsimpakevaluering-proses (B&OIV-proses)?

B&OIV-proses

Die B&OIV-proses bestaan uit 'n Bestekopname- en 'n OIE-fase. WSP sal 'n geïntegreerde proses onderneem ten einde te verseker dat daar aan wetgewing, insluitend die MPRDA, NEMA en NWA, voldoen word.

Die B&OIV-proses behels die oorweging, ondersoek en evaluering van en verslagdoening oor die voorgestelde Blok Z-projek ten einde die potensiele impakte op die omgewing te identifiseer en om versagtingsmaatreëls te ontwikkel ten einde die negatiewe impakte te verminder en sodoende by te dra tot 'n volhoubare benadering tot die mynboubedrywighede. Die volgende sal as deel van die B&OIV-proses onderneem word:

Fase 1: Bestekopname

- **Identifisering van Vraagstukke:** Hierdie vraagstukke sluit beide maatskaplike en omgewingsvraagstukke in. Poog om beperkings en moontlike alternatiewe tot die voorgestelde Blok Z-projek te identifiseer wat die impakte op die omgewing verminder deur die gebruik van deskundige kennis, literatuuroorsigte, terreinbesoeke en deeglike oorlegpleging met owerhede en die publiek. 'n Oop en deursigtige oorlegplegingsproses word uitgevoer om te fasiliteer dat belanghebbendes se knelpunte in die besluitnemingsproses ingesluit word.

Fase 2: Omgewingsimpakverslagdoening

- **Spesialisstudies:** 'n Aantal spesialisstudies moet tydens die verloop van die voorgestelde Blok Z-projek onderneem word. Uit hierdie studies kan basislyntoestande beskryf en verstaan, en verwagte impakte geïdentifiseer word. As deel van die spesialisstudies se werksbestek, sal die impakte gegradeer word ten einde die belang van die geïdentifiseerde potensiele impakte te bepaal en aanbevelings sal geformuleer word. Hierdie aanbevelings sal in die OBPV-wysiging vir die voorgestelde Blok Z-projek geïnkorporeer word.
- **Evaluering van Potensiele Alternatiewe:** Billike alternatiewe sal geïdentifiseer en geëvalueer word. Alternatiewe kan bestaan uit die alternatiewe posisionering van die infrastruktuur, ontwerp en konstruksie en die mynbouproses, asook die "verbode" opsie.
- **Evaluering van Impakte:** Die belang van omgewings- en maatskaplike vraagstukke sal geëvalueer word ten opsigte van potensiele impakte, hul verwagte omvang, intensiteit, tydsduur en waarskynlikheid van voorkoms.
- **Versagtings- en Bestuursmaatreëls:** Maatreëls om impakte tot aanvaarbare vlakke te bestuur en te minimaliseer en die voordele wat gepaard gaan met die voorgestelde Blok Z-projek te maksimaliseer, sal geïdentifiseer word.

Proses van Skakeling met Belanghebbendes

Die proses van skakeling met belanghebbendes is 'n integrale deel van die B&OIV en vind deurlopend tydens die proses plaas.

Die eerste stappe behels om die publiek en voorheen geïdentifiseerde belanghebbendes (ook bekend as belangstellende en/of geaffekteerde partye [B&GP's]) van die voorgestelde Blok Z-projek te verwittig en alle belanghebbendes na die openbare vergaderings uit te nooi; om 'n deursigtige proses te verseker; om die besonderhede van die voorgestelde Blok Z-projek in te sluit en ook aanwysings oor hoe om as 'n belanghebbende te registreer. Hierdie skakelingsproses met belanghebbendes word hieronder verder uiteengesit:

Stap 1: Verwittig die Owerheid van die B&OIV-proses

- Dien 'n aansoek om B&OIV by die gedelegeerde bevoegde owerhede in.

Stap 2: Verwittig Belanghebbendes en Identifiseer Vraagstukke

- Verwittig belanghebbendes van die voorgestelde Blok Z-projek deur die volgende media:
 - Kennisgewingsbriewe
 - terreinkennisgewings wat in en om die voorgestelde Blok Z-projekgebied aangebring word; en
 - koerantadvertensies in *The Sowetan*, *The Eco/Beeld* en *The Ridge*.
- Voorsien belanghebbendes van 'n AID oor die voorgestelde Blok Z-projek, insluitend 'n liggingskaart en 'n registrasie/vraagstukvorm. Daar word van belanghebbendes vereis om te registreer en hul belang by die voorgestelde Blok Z-projek te verklaar ten einde verdere projekinligting te ontvang. Die tydperk waartydens kommentaar gelewer kan word is met twee weke verleng om voorsiening te maak vir die skoolvakansie en sal strek vanaf 20 Junie tot 4 Augustus 2014.
- Openbare vergaderings sal tydens die Bestekopname- en OIE-fase met geregistreerde belanghebbendes gehou word.

Stap 3: Openbare Besigtiging van Konsep Bestekopnameverslag

- Vraagstukke en knelpunte wat deur geregistreerde belanghebbendes geopper is, word in 'n Kommentaar-en-Antwoordverslag vervat vir insluiting in die Konsep Bestekopnameverslag.
- Die verslag word vir 'n 40-dae kommentaartydperk vrygestel.
- Hierdie verslag sal ook die Plan van Studie vir Omgewingsimpakevaluering (PvS vir OIE) en OBPR-wysiging insluit.
- Alle geregistreerde belanghebbendes op die voorgestelde Blok Z-projek se databasis sal skriftelik in kennis gestel word van die geleentheid vir

kommentaar.

- 'n Openbare vergadering, waarheen alle belanghebbendes genooi word, sal tydens die besigtigingstydperk gehou word.
- Afskrifte van die verslag sal by openbare plekke, asook op WSP se webwerf, beskikbaar gestel word.

Stap 4: Finale Bestekopnameverslag

- Kommentaar wat tydens die besigtigingsproses van geregistreerde belanghebbendes ontvang is, word in die opstel van die Finale Bestekopnameverslag oorweeg alvorens dit by die bevoegde owerhede ingedien word vir hul oorsig en goedkeuring.
- Die Finale Bestekopnameverslag sal vir 'n 30-dae openbare besigtigingstydperk (wat samelopend is met die owerhede se oorsigtydperk) vrygestel word.
- Alle belanghebbendes op die voorgestelde Blok Z-projek se databasis sal skriftelik in kennis gestel word van die owerhede se besluite oor die Finale Bestekopnameverslag.
- Die Finale Bestekopnameverslag sal die PvS vir OIE en Perke van Studie vir spesialisstudies, wat onderneem moet word as deel van die omgewings-impakverslag (OIV) en OBPV-wysiging, insluit.

Stap 5: Konsep OIV/OBPV vir Openbare Besigtiging

- Opstel en vrystelling van 'n gekombineerde Konsep OIV/OBPV vir 'n 40-dae besigtigingstydperk deur belanghebbendes.
- Alle kommentaar wat van belanghebbendes ontvang word via vergaderings wat gehou of skriftelike korrespondensie, sal in die bygewerkte Kommentaar-en-Antwoordverslag gekonsolideer word.
- Die Kommentaar-en-Antwoordverslag sal die aard van die kommentaar, wanneer en deur wie die kommentaar geopper is, asook hoe die kommentaar oorweeg is wat in die Finale OIV/OBPV ontvang is, aandui.

Stap 6: Finale OIV/OBPV

- Die Finale OIV/OBPV, insluitend die Kommentaar-en-Antwoordverslag, sal opgestel word vir indiening by die bevoegde owerhede vir besluitneming.
- Die Finale OIV/OBPV sal vir 'n 30-dae openbare besigtigingstydperk (wat samelopend is met die owerhede se oorsigtydperk) vrygestel word.

Stap 7: Openbare Kennisgewing van Omgewingsmagtiging en Appèltydperk

- Alle geregistreerde belanghebbendes sal skriftelik in kennis gestel word betreffende die omgewingsmagtigings vir die voorgestelde Blok Z-projek en die appèltydperk, asook hoe om te appelleer.

Die omgewingsmagtigings en die appèltydperk sal ook in plaaslike koerante geadverteer word.

Waarom is U Deelname Belangrik?

Deelname is in almal se beste belang, want:

- dit bied geleentheid vir belanghebbendes en die

owerhede om duidelike, akkurate en verstaanbare inligting oor die voorgestelde Blok Z-projek in te win;

- dit bied lede van die publiek die geleentheid om kommentaar te lewer (beide positief en negatief) betreffende die omgewingsimpakte van die voorgestelde Blok Z-projek;
- dit bied aan belanghebbendes die geleentheid om maniere voor te stel vir die vermindering of versagting van enige negatiewe impakte van die Blok Z-projek of om die voordele daarvan te verbeter;
- dit sal die Isibonelo Steenkoolmyn in staat stel om die behoeftes, voorkeure en waardes van belanghebbendes in hul besluite te inkorporeer; en
- dit dra by tot die handhawing van 'n gesonde, lewenskragtige demokrasie.

Hoe kan u betrokke raak?

- Deur te reageer (telefonies, per faks of per e-pos) op ons uitnodiging vir u betrokkeheid.
- Deur die aangehegte kommentaarvorm aan WSP te pos, te faks of te e-pos.
- Deur die vergaderings by te woon wat gedurende die verloop van die voorgestelde Blok Z-projek gehou sal word. Sou u as 'n belanghebbende registreer, sal u uitgenooi word om hierdie vergaderings by te woon.
- Deur die konsep Bestekopnameverslag, OIV en OBPV-wysiging binne die toepaslike besigtigingstydperke te besigtig en u kommentaar aan WSP te stuur.



Rolle en Verantwoordelikhede van Belanghebbendes

Belanghebbendes het die reg om enige vraagstukke wat hulle glo van belang mag wees in die oorweging van die aansoek, onder die bevoegde owerheid se aandag te bring.

Die regte van belanghebbendes word deur sekere verpligtinge gekwalifiseer, naamlik:

- Belanghebbendes moet toesien dat hul kommentaar ingedien word binne die tydsraamwerke wat deur die bevoegde owerheid goedgekeur is, of binne enige verlenging van 'n tydsraamwerk wat deur die applikant of OEP ooreengekom is.
- 'n Afskrif van kommentaar wat direk by die bevoegde owerheid ingedien is, moet op die applikant of OEP beteken word.
- Enige regstreekse sake, finansiële, persoonlike of ander belang wat hulle by die goedkeuring of weiering van die aansoek mag hê, moet bekendgemaak word.

Die rolle van belanghebbendes in 'n skakelingsproses met belanghebbendes, sluit gewoonlik een of meer van die volgende in:

- Om te help met die identifisering en prioritisering van vraagstukke wat ondersoek moet word.
- Om voorstelle te maak oor alternatiewe en maniere om negatiewe impakte te voorkom, te minimaliseer en te bestuur en om voordele van die voorgestelde Blok Z-projek te versterk.
- Om te help met of kommentaar te lewer oor die ontwikkeling van gemeenskaplik aanvaarbare kriteria vir die evaluering van besluitnemingsopsies.
- Om inligting by te dra oor openbare behoeftes, waardes en verwagtinge.
- Om plaaslike en tradisionele kennis by te dra.
- Om te verifieer dat hul vraagstukke oorweging geniet het.

Ten einde doeltreffend deel te neem, moet belanghebbendes:

- so vroeg moontlik by die proses betrokke raak en as 'n belanghebbende registreer;
- die OEP verwittig van enige ander belanghebbendes wat geraadpleeg moet word;
- bydra tot die ontwerp van die proses van skakeling met belanghebbendes (insluitend tydsraamwerke) om te verseker dat dit vir alle belanghebbendes aanvaarbaar is;
- die proses volg wanneer dit aanvaar is;
- die materiaal lees wat voorsien word en aktief probeer om die betrokke vraagstukke te verstaan;
- betyds op korrespondensie reageer;
- ander belanghebbendes respekteer en hoflik teenoor hulle wees;
- hul daarvan weerhou om subjektiewe, ongegronde of wanigeligte stellings te maak;

- erken dat die proses beperk is tot die vraagstukke wat regstreeks verband hou met die aansoek; en
- help met inligting van sal bydra tot 'n deeglike studie.

Om as 'n belanghebbende op die projek se databasis te registreer, vul asseblief die aangehegte vorm in en stuur dit aan die tersaaklike WSP verteenwoordiger terug, soos hieronder aangedui word:

WSP is deur AATC: IC aangestel as die OEP ten einde die omgewingsmagtigingsproses vir die voorgestelde Blok Z te onderneem en om skakeling met belanghebbendes te fasiliteer.

Ten einde 'n geregistreerde belanghebbende te word en te verseker dat alle kommentaar en navrae betreffende hierdie voorgestelde Blok Z-projek akkuraat gedokumenteer en aangespreek word, moet u asseblief u kontakbesonderhede en kommentaar (teen 4 Augustus 2014) op die aangehegte *kommentaarvorm* terugstuur aan:

Konsultant: Zaffar Hussain

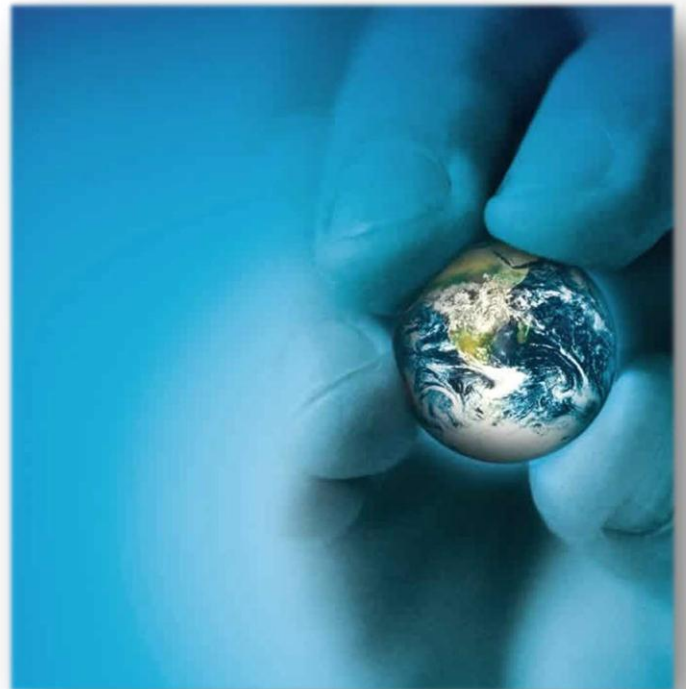
Maatskappy: WSP Environmental (Edms.) Bpk.

Adres: Posbus 98867, Sloanepark, 2152

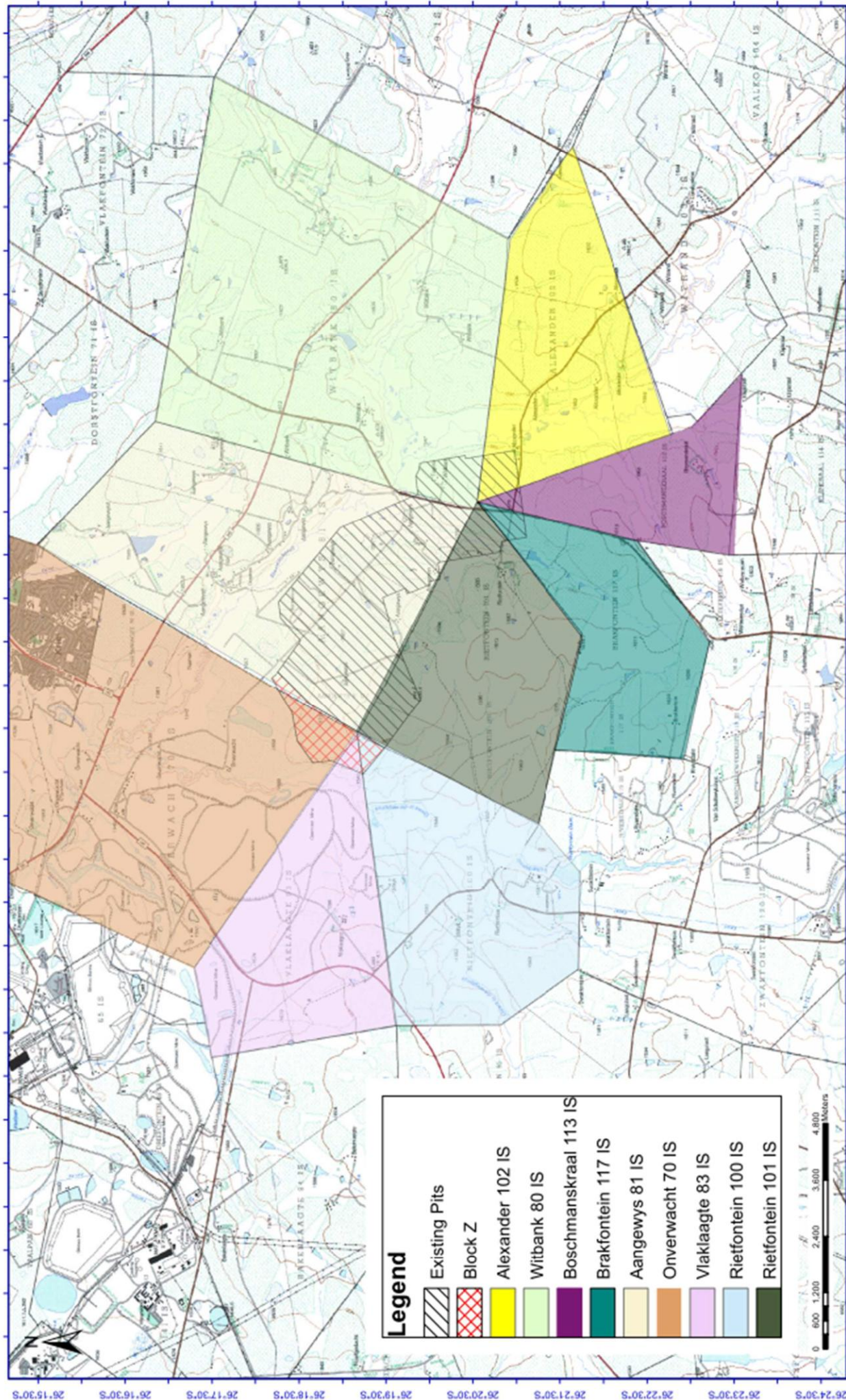
Tel: +27 11 361 1387

Faks: +27 11 361 1381

E-pos: Zaffar.Hussain@WSPGroup.co.za



Liggingskaarte



Anglo American Thermal Coal: Isibonelo Colliery Farm Boundaries		Data Source: South African Department of Rural Development and Land Reform - Chief Directorate: National Geo-spatial Information		Project: Proposed Block Z Project Project No: 39644 Drawn by: Jared O'Brien Reviewed by: Janna Bedford-Owen		Date: 28 March 2014	Figure No.
		Projection Geographic - WGS1984		WSP www.wspenvironmental.co.za			

Registrasie- en Kommentaarvorm

**DIE VOORGESTELDE ANGLO AMERICAN STOOMSTEENKOOL:
BLOK Z ISIBONELO STEENKOOLMYN, MPUMALANGA
(MDEDET Verwysing: 17/2/3N-362)**

Ten einde 'n geregistreerde belanghebbende te wees en te verseker dat alle kommentaar en navrae betreffende hierdie projek akkuraat aangeteken en aangespreek word, stuur asseblief u kommentaar (teen 4 Augustus 2014) en kontakbesonderhede met die aangehegte antwoordvorm aan:

Zaffar Hussain
WSP Environmental (Edms.) Bpk.
Adres: Posbus 98867, Sloanepark, 2152
Tel: +27 11 361 1387
Faks: +27 11 361 1381
E-pos: Zaffar.Hussain@WSPGroup.co.za

Vul asseblief u persoonlike besonderhede hieronder in:

Naam:				
Organisasie & Posbenaming:				
Adres:				
Tel:				
Faks:				
E-pos:				
Ek verkies my kennisgewings per: (merk asb. die toepaslike blokkie)	Brief (pos)	E-pos	Faks	Telefoon

Ingevolge Staatskennisgewing R543 (Regulasies op OIE-proses), verstrek asseblief enige regstreekse sake, finansiële, persoonlike of ander belang wat u mag hê in die toestaan of weiering van die aansoek om omgewingsmagtiging hieronder:

.....

Verstrek asseblief u belang by die projek en u kommentaar hieronder:

.....

Handtekening

Datum



Isaziso ngeNqubo Yesigunyazo Sezemvelo Ehlongozwayo (Irifarensi Ye-MDEDET: 17/2/3N-362) Ye-Anglo American Thermal Coal: Iphrojekthi ye-Block Z YeSibonelo Colliery ehlongozwayo kuMasipala Wendawo Emalahleni, ESifundazweni SaseMpumalanga

INCWADI YOLWAZI OLUYISENDLALELO

Injongo yale Ncwadi

Injongo yale ncwadi yolwazi oluyisendlalelo (BID) ukumema wena (njengombambiqhaza oyinhloko) ukuba ubambe iqhaza enqubweni yokuxoxisana nababambiqhaza yesigunyazo sezemvelo nesigaba sokuhlela se-Anglo American Thermal Coal ehlongozwayo: Isibonelo Colliery (AATC: IC) Block Z Opencast Coal pit (Block Z). I-WSP Environmental (Pty) Ltd (WSP) iqokwe yi-IC njengoMhlaziyi Wezemvelo ozimele (EAP) ukuba yenze inqubo ebanzi yoMbiko Wokubheka Isimo Nomthelela Kwezemvelo (S&EIR), ehlanganisa iSichibiyelo soMbiko Wohlelo Lokulawulwa Kwezemvelo (EMPR) nokufaka isicelo seLayisensi Yokusebenzisa Amanzi (WULA), ye-Block Z ehlongozwayo.

Injongo yale ncwadi:

- Ukunikeza ulwazi oluyisendlalelo mayelana nephrojekthi i-Block Z ehlongozwayo
- Ukunikeza uhlaka lwenqubo elandelwayo
- Ukwazisa ababambiqhaza ngamalungelo abo nemisebenzi yabo mayelana nokubamba iqhaza ezingxenyeni ezithile zale nqubo
- Ukusiza ababambiqhaza ekutholeni ukuthi bayafuna yini ukubamba iqhaza kanye/noma bayathinteka yini kule phrojekthi ye-Block Z ehlongozwayo.
- Ukusiza ababambiqhaza ukuba baveze izimvo zabo ngendlela ezoqinisekisa ukuthi ziyanakwa ezingxenyeni ezithile zale nqubo.

Iminingwane Yephrojekthi

Isendlalelo Nezizathu

Amalahle abalulekile ekuthuthukisweni komnotho futhi aneqhaza kakhulu ekuqashweni kwabantu esifundeni sendawo. Isidingo samalahle afuneka emazweni angaphandle njengamanje sikhulu kunanoma yinini ngaphambili futhi ngisho noma kwanda ukuqaliswa kwemithombo yamandla ehlukile; isidingo kusalindeleke ukuba senyuke kule minyaka ezayo. I-IC ingakwazi ukusekela umnotho wendawo nokazwelonke ngokuhlinzeka ngemisebenzi eqondile nengaqondile, kanye nokuhlinzeka ngokuphakelwa kwamalahle okusimeme.

Ngo-Okthoba 2003 i-IC ne-Sasol bangena esivumelwaneni sokuphakela amaLahle esihlinzeka ngokuphakelwa kwamalahle angu-100 Mt kumaplanti okukhiqiza amagesi ngezinto zemvelo e-Sasol Synthetic Fuels (SSF) e-Secunda, eSifundazweni SaseMpumalanga. Amalahle ambiwe endaweni ye-Block Z ehlongozwayo azonebenza ukufeza isivumelwano

sokuphakelana phakathi kwe-AATC: IC ne-SSF. I-IC yayizosebenza isikhathi esingangokusebenza kwemayini esilinganiselwa eminyakeni engu-21. I-Block Z ehlongozwayo ngeke isandise isikhathi sokuba khona kwemayini esilindelekile manje, kodwa kunalokho iyosebenza kanyekanye nemisebenzi ekhona.

Indawo Okukuyo Iphrojekthi

I-IC isendaweni engaba ngu-60 km eningizimu ye-Witbank nendawo engu-8 km eningizimu yedolobha lase-Kriel eSifundazweni SaseMpumalanga; ngokuqonde ngqo iphakathi kwamadoloba i-Kinross, i-Secunda, i-Bethal ne-Kriel. Le ndawo ingaphansi kukaMasipala Wesifunda iNkangala noMasipala Wendawo Emalahleni. Indawo ye-Block Z isentshonalanga (incikene) nendawo okwenziwa kuyo imisebenzi yamanje yokumba ye-IC, empumalanga yendawo ye-Kriel Colliery okumbiwa kuyo emgodini nangaphansi komhlaba futhi isenyakatho yemayini yamalahle engaphansi komhlaba i-Syferfontein ese-Sasol.

Ukusetshenziswa Komhlaba Ozungezile

Ukusetshenziswa komhlaba ozungezile kuhlanganisa kakhulu izindawo zemayini nezokulima.

Ukufingqwa Kwephrojekthi

Iphrojekthi ye-Block Z ehlongozwayo ibandakanya indawo yokumba emgodini ovulekile elinganiselwa ku-141 ha ku-Block Z, enamalahle alinganiselwa kumathani ayizigidi ezingu-9 angakumbiwa. Kuyaqondakala ukuthi ukuhlongozwa kokumbiwa kwe-Block Z ngeke kwandise isikhathi sokusebenza kwale mayini esikhona njengamanje; kodwa-ke kuyokwandisa izinga layo lokukhiqiza ngonyaka. I-IC ine-EMPR evunyiwe kanye namalungelo okumba ewathole ngaphansi koMthetho Wokuthuthukiswa Kwamaminerali Nezimbiwa-phansi (No. 28 ka-2002) (MPRDA); kodwa-ke, lokhu akuhlanganisi indawo ye-Block Z. Ngakho-ke, ukuze iqale ngemisebenzi yokumba ehlongozwayo ku-Block Z, i-IC kudingeka ithole lokhu okulandelayo:

- Isigunyazo Sezemvelo semisebenzi ehlonzwe ngokuvumelana neSiqondiso Sesaziso SikaHulumeni (GNR) 544 no-545 (Disemba 2010) esasichilelwa ngokuvumelana noMthetho Wokulawulwa Kwezemvelo Kuzwelonke (No. 107 ka-1998) (NEMA) eMnyangweni Wokuthuthukiswa Komnotho, Ezemvelo Nezokuvakasha WaseMpumalanga (MDEDET)
- Ilayisensi yokusebenzisa amanzi (WUL) ngokuvumelana noMthetho Wamanzi Kazwelonke (No 36 ka-2004) (NWA) woMnyango Wezamanzi (DWA)

- Isicelo sokudluliswa kanye nesamalungelo okumba esisha kanye neSichibiyelo se-EMPR ngokuvumelana noMthetho Wokuthuthukiswa Kwamaminali Nezimbiwa-phansi (No 28 ka-2002) (MPRDA) woMnyango Wezimbiwa-phansi.

Uhlaka Olungokomthetho

Njengoba kuphawuliwe ngenhla, inqubo ye-S&EIR (yesigunyazo sezemvelo) neSichibiyelo se-EMPR (sesicelo samalungelo okumba) (njengoba ibekwe yi-NEMA ne-MPRDA) kufanele kufakelwe isicelo kanyekanye nesicelo se-WUL.

Isichibiyelo Se-EMPR Namalungelo Okumba

Isichibiyelo ngokuvumelana ne-MPRDA sidingwa yi-GNR 527 (2004) ye-MPRDA. Njengengxenyane yenqubo yesigunyazo, i-WSP izohlanganisa umbiko wokubheka isimo, ukuhlaziywa komthelela kwezemvelo (EIA) neSichibiyelo se-EMPR ngokuvumelana ne-MPRDA. Ngokufanayo, i-WSP izokwenza inqubo yokuxoxisana nababambiqhaza ngokuvumelana neSigaba 3 se-GNR 527 ye-MPRDA, kanye nokucabangela iSigaba 22 se-MPRDA esidinga ukuba bonke abafake isicelo samalungelo okumba baxoxisane nababambiqhaza abathintekayo kwiphrojekthi ye-Block Z ehlongozwayo kanye nesayithi ehlongozwayo.

Isigunyazo Sezemvelo

Umsebenzi ohlongozwayo umsebenzi ohleliwe ngokuvumelana ne-NEMA, njengoba ichitshiyelwe, neZiqondiso ze-EIA, 2010 (GNR 544, 545, no-546). Imisebenzi ebalwe ohlwini lwe-GNR 544 no-546 idinga ukuba kwenziwe inqubo Yokuhlaziya Eyisisekelo, kuyilapho imisebenzi ebalwe ohlwini lwe-GNR 545 incike enqubweni ye-S&EIR. Iphrojekthi ye-Block Z ehlongozwayo ihlanganisa imisebenzi ebalwe ohlwini kokubili ku-GNR 544 no-GNR 545, futhi ngenxa yalokho kudingeka inqubo ye-S&EIR (Irifarensi Ye-MDEDET: 17/2/3N-362). Ngokufanayo nezimfuneko ze-MPRDA, iSahluko 6 se-GNR 543 sidinga ukuba kuphothulwe futhi kubikwe ngenqubo yokuxoxisana nababambiqhaza. Imisebenzi ebalwe ohlwini engase ihlobane ne-Block Z ehlongozwayo, phakathi kokunye, ihlanganisa:

I-GNR 544 (18 Juni 2010) (edinga iNqubo Yokuhlaziya Eyisisekelo):

■ Umsebenzi 9:

Ukwakhiwa kwezindawo noma ingqalasizinda engaphezu kuka-1 000 m ubude yokuthutha ngobuningi amanzi, indle noma amanzi ezikhukhula, (i) angu-0.36 m noma ngaphezulu ububanzi ngaphakathi; noma (ii) engathwala u-120 l/s noma ngaphezulu uma kunesidingo esikhulu.

■ Umsebenzi 11:

Ukwakhiwa kwemihubhe; imizila; amabhuloho; amadamu; udonga lwamadamu; izindawo okuzogelezela kuzo amanzi ezikhukhula; izikhumulo zezikebhe; izindawo okuphuma kuzo amanzi ezingaphezu kwamamitha-skwele angu-50 ubukhulu; imithambeka yamanzi okuma kuwo

izikebhe nemikhumbi engaphezu kwamamitha-skwele angu-50 ubukhulu; izakhiwo ezingaphezu kwamamitha-skwele angu-50 ubukhulu; noma ingqalasizinda noma izakhiwo ezimboza indawo engamamitha-skwele angu-50 noma ngaphezulu ubukhulu; lapho izakhiwo ezinjalo zenzeka emzileni wamanzi noma ebangeni elingaphansi kwamamitha angu-32 ukusuka emzileni wamanzi, kukalwa kusuka osebeni lomzila wamanzi, ngaphandle kwalapho isakhiwo esinjalo sizokwenzeka ngemuva komngcele wokwakha obekiwe.

■ Umsebenzi 37:

Ukunwetshwa kwezindawo noma ingqalasizinda yokuthuthwa ngobuningi kwamanzi, indle noma amanzi ezikhukhula, lapho, (a) indawo noma ingqalasizinda inwetshwa ngaphazu kwamamitha angu-1 000; noma (b) amandla endawo noma ingqalasizinda okuthwala lapho kunesidingo esikhulu ezokhuphuka ngo-10% noma ngaphezulu.

■ Umsebenzi 47:

Ukunwetshwa kobubanzi bomgwaqo ngebanga elingaphezu kuka-6m, noma ukunwetshwa kobude bomgwaqo ngebanga elingaphezu kuka-1 km. (i) lapho indawo engasebenzi ekhona ingaphezu kuka-13,5 m ububanzi; noma (ii) lapho kungekho ndawo engasebenzi ekhona, lapho umgwaqo okhona ungaphezu kuka-8 m ububanzi.

I-GNR 545 (18 Juni 2010) (edinga iNqubo ye-S&EIR):

■ Umsebenzi 15:

Ukushintshwa komhlaba ongakenziwa lutho ukuze usetshenziselwe izimboni lapho isiyonke indawo ezoshintshwa ingaphezu kuka-20 ha.

■ Umsebenzi 20:

Noma yimuphi umsebenzi odinga ilungelo lokumba noma ukuvuselelwa kwalo njengoba kucatshangelwe kusigaba 22 no-24 ngokulandelana soMthetho Wokuthuthukiswa Kwamaminali Nezimbiwa-phansi, 2002 (uMthetho No. 28 ka-2002).

Isicelo Selayisensi Yokusebenzisa Amanzi

I-NWA ihlinzeka ngenguquko eyisisekelo yomthetho ohlobene namanzi nokusetshenziswa kwawo. I-WUL idingwa yiSigaba 21 se-NWA. Imisebenzi nezimfuneko ze-WUL kuzophothulwa kanyekanye futhi kuhlanganiswe ne-NEMA ne-MPRDA S&EIR kanye nenqubo yokubamba iqhaza kwababambiqhaza.

Imisebenzi yokusetshenziswa kwamanzi ehlonzwe njengehambelana nephrojekthi ye-Block Z ehlongozwayo yile:

- ISigaba 21(c): Ukuvimba noma ukuchezukisa ukugeleza kwamanzi emzileni wamanzi.
- ISigaba 21(i): Ukushintsha usebe, umzila noma izici zomzila wamanzi.
- ISigaba 21(j): Ukususwa, ukukhishwa noma ukuchithwa kamanzi atholakala ngaphansi komhlaba uma kudingeka ukuze umsebenzi uqhubeke ngempumelelo noma ngenxa yokuphepha abantu.
- ISigaba 21(g): Ukulahlwa kwendle ngendlela engase ibe nomthelela olimazayo emanzini.

Ihlanganisani inqubo Yokubhekwa Kwesimo Nokuhlaziywa Komthelela Kwezemvelo (S&EIR)?

Inqubo Ye-S&EIR

Inqubo ye-S&EIR ihlanganisa isigaba soKubhekwa Kwesimo nesigaba se-EIA. I-WSP izokwenza inqubo ehlangene ukuze kuqinisekise ukuhambisana nomthetho, kuhlangukise i-MPRDA, NEMA ne-NWA.

Inqubo ye-S&EIR ibandakanya ukucatshangelwa, ukuvivinywa, ukuhlolwa nokubikwa kwephrojekthi ehlongozwayo ye-Block Z ukuze kuhlonzwe imithelela engase ibe khona kwezemvelo, futhi kwenziwe izinyathelo zokudambisa imithelela emibi ukuze kuncishiswe imithelela emibi, ngaleyo ndlela kusizwe ekuletheni indlela esimeme emsebenzini wemayini. Lokhu okulandelayo kuzokwenziwa njengenqubo ye-S&EIR:

Isigaba 1: Ukubhekwa Kwesimo

- **Ukuhlonzwa Kwezinkinga:** Lezi zinkinga zihlanganisa kokubili ezenhlalo nezemvelo. Imizamo yokuhlonza izinto ezivimbelayo nezindlela ezihlukile ezingase zisetshenziswe kwiphrojekthi ye-Block Z ehlongozwayo ezinciphisa umthelela kwezemvelo ngokusetshenziswa kolwazi lochwepheshe, ukubuyekeza kwezincwadi, ukuvakashela esayithini kanye nokuxoxisana kabanzi namagunya nomphakathi. Inqubo yokuxoxisana evulekile nesobala yenziwele ukwenza lula ukufakwa kwezinto ezikhathaza ababambiqhaza enqubweni yokwenza izinqumo.

Isigaba 2: Ukubika Ngomthelela Kwezemvelo

- **Ucwaningo Lochwepheshe:** Kufanele kwenziwe izingcwaningo zochwepheshe eziningana phakathi nale phrojekthi ye-Block Z ehlongozwayo. Kulezi zingcwaningo kungase kuchazwe izimo eziyisisekelo futhi ziqondwe bese kuhlonzwa nemithelela elindelekile. Njengengxenywe yokubheka komsebenzi izingcwaningo zochwepheshe, imithelela izokalwa ukuze kutholwe ukubaluleka kwemithelela ehlonziwe engase ibe khona, bese kwenziwa iziphakamiso. Lezi ziphakamiso zizofakwa eSichibiyelweni Se-EMPR sephrojekthi ye-Block Z ehlongozwayo.
- **Ukuhlolwa Kwezindlela Ezihlukile:** Kuzohlonzwa futhi kuhlonzwe izindlela ezihlukile ezinengqondo. Izindlela ezihlukile zingase zihlanganise ukubekwa okuhlukile kwengqalasizinda, umklamo nokwakhiwa kanye nenqubo yokumba, kanye nendlela 'engenakulokothwa'.
- **Ukuhlolwa Kwemithelela:** Ukubaluleka kwezinkinga zezemvelo nezenhlalo kuzohlonzwa ngokwemithelela engase ibe khona, izinga layo elilindelekile, ukujula, ubude besikhathi kanye namathuba okwenzeka.
- **Izinyathelo Zokudambisa Nokulawula Imithelela Emibi** Izinyathelo zokulawula nokunciphisa imithelela ibe semazingeni amukelekayo futhi kwandiswe izinzuzo ezihlobene nephrojekthi ye-Block Z ehlongozwayo zizohlonzwa.

Inqubo Yokuxoxisana Naba-bambiqhaza

Inqubo yokuxoxisana nababambiqhaza iyingxenywe ebalulekile ye-S&EIR, futhi iyaqhubeka phakathi nayo yonke le nqubo.

Izinyathelo zokuqala zibandakanya ukwazisa umphakathi kanye nababambiqhaza abahlonzwa ekuqaleni (abaziwa nangokuthi abafisa ukubamba iqhaza nabathintekayo [ama-I&AP]) kwale phrojekthi ye-Block Z bese kumenywa bonke ababambiqhaza emhlanganweni womphakathi futhi kuqinisekise ukuthi kunenqubo esobala futhi eyohlanganisa imininingwane yephrojekthi ehlongozwayo ye-Block Z kanye neziqondiso ezimayelana nendlela yokubhalisa njengombambiqhaza. Le nqubo yokuxoxisana nababambiqhaza iningilizwe lapha ngezansi.

Isinyathelo 1: Yazisa abaseGunyeni ngeNqubo Ye-S&EIR

- Hambisa isicelo se-S&EIR emagunyeni akhethiwe afanele.

Isinyathelo 2: Yazisa Ababambiqhaza futhi Uhlonze Izinkinga

- Yazisa ababambiqhaza ngephrojekthi ye-Block Z ehlongozwayo ngalezi zindlela zokuxhumana ezilandelayo:
 - Izincwadi Zokwazisa
 - Izaziso Zasesayithini ezibekwa phakathi endaweni yephrojekthi ye-Block Z ehlongozwayo nasendaweni eyizungezile
 - Izikhangiso zamaphephandaba ku-*The Sowetan*, *The Eco/Beeld*, ne-*The Ridge*.
- Ukunikeza ababambiqhaza i-BID kwiphrojekthi ye-Block Z ehlongozwayo, kuhlangukise nebalazwe lendawo kanye namaforamu okubhalisa/ezinkinga Ababambiqhaza kudingeka babhalise futhi basho iqhaza abafisa ukulibamba kule phrojekthi ye-Block Z ehlongozwayo ukuze bathole imininingwane ethe xaxa ngale phrojekthi. Inkathi yokuveza izimvo isinwetshwe ngamaviki amabili ngenxa yamaholidi esikole futhi izoqala mhla ka-20 Juni – 4 Agasti 2014.
- Imihlangano yomphakathi iyoqhutshwa nababambiqhaza ababhalisile phakathi nesigaba soKubhekwa Kwesimo nese-EIA.

Isinyathelo 3: Ukubuyekeza Komphakathi Umbiko Wohlaka Lokubhekwa Kwesimo

- Izinkinga nokukhathazeka okuphakanyiswe ababambiqhaza ababhalisile kuqukethwe eMbikweni Wokuphendula Izimvo ozofakwa eMbikweni Wohlaka Lokubhekwa Kwesimo.
- Lo mbiko wethulwa enkathini yokuveza izimvo eyizinsuku ezingu-40.
- Lo mbiko uzohlanganisa nePulani Yocwaningo Lokuhlaziywa Komthelela Kwezemvelo (i-PoS ye-EIA) neSichibiyelo se-EMPR.
- Bonke ababambiqhaza ababhalisile enqolobaneni yolwazi yephrojekthi ye-Block Z ehlongozwayo bazobhaliswa baziswe ngethuba lokuveza uvo lwabo.

- Kuzoba khona umhlango wumphakathi okumenywa kuwo bonke ababambiqhaza, ngenkathi yokubuyekeza.
- Amakhophi ombiko azotholakala ezindaweni zomphakathi kanye nakumawebhusayithi e-WSP.

Isinyathelo 4: Umbiko Wokugcina Wokubhekwa Kwesimo

- Izimvo ezitholakale kubabambiqhaza ababhalisile phakathi nenqubo yokubuyekeza zicatshangelwa lapho sekuhlanganiswa uMbiko Wokugcina Wokubhekwa Kwesimo ngaphambi kokuba uhanjise emagunyeni afanele ukuze awubuyekeze futhi awuvume.
- Umbiko Wokugcina Wokubhekwa Kwesimo uzokhululwa ukuze ubuyekwe ngumphakathi inkathi eyizinsuku ezingu-30 (ehambisana nenkathi yokubuyekwa abasemagunyeni).
- Bonke ababambiqhaza abasenqolobaneni yolwazi yephrojekthi ye-Block Z ehlongozwayo bazobhalelwa baziswe ngesinqumo sabasemagunyeni mayelana noMbiko Wokugcina Wokubhekwa Kwesimo.
- Umbiko Wokugcina uyohlanganisa i-PoS ye-EIA kanye Nalokho Okuzobhekisela Kukho izingcwaningo zochwepheshe ezizokwenziwa njengengxeny yombiko womthelela kwezemvelo (EIR) neSichibiyelo Se-EMPR.

Isinyathelo 5: Uhlaka lwe-EIR/EMPR Lokubuyekwa Umphakathi

- Ukuhlanganiswa nokukhishwa koHlaka Lwe-EIR/EMPR oluzobuyekwa inkathi eyizinsuku ezingu-40 ngababambiqhaza.
- Zonke izimvo ezitholakele kubabambiqhaza ngemihlangano ebanjwayo noma ngezincwadi ezibhaliwe ziyohlanganiswa zibe uMbiko Wezimvo Nokuphendula wakamuva.
- Umbiko Wezimvo Nokuphendula uyobonisa uhlobo lwezimvo, ukuthi ubani oveze lolo luvo futhi nini, futhi ubonise nokuthi lolo luvo luye lwacatshangelwa kanjani ku-EIR/EMPR Yokugcina.

Isinyathelo 6: I-EIR/EMPR Yokugcina

- I-EIR/EMPR Yokugcina, kuhlanganise noMbiko Wezimvo Nokuphendula, iyohlanganiswa ukuze ithunyelwe emagunyeni afanele ukuze kwenziwe isinqumo.
- I-EIR/EMPR Yokugcina iyokhululwa ukuze ibuyekwe ngumphakathi inkathi eyizinsuku ezingu-30 (ehambisana nenkathi yokubuyekwa abasemagunyeni).

Isinyathelo 7: Ukwaziswa Komphakathi Ngesigunyazo Sezemvelo Nenkathi Yokufaka Izikhalazo

- Bonke ababambiqhaza ababhalisile bayobhalelwa baziswe mayelana nezigunyazo zezemvelo zephrojekthi ye-Block Z ehlongozwayo kanye nenkathi yezikhalazo, kanye nendlela yokufaka izikhalazo.

Izigunyazo zezemvelo kanye nenkathi yezikhalazo nakho kuyokhangiswa kumaphephandaba endawo.

Kungani Kubalulekile Ukubamba Iqhaza Kwakho?

Ukubamba iqhaza kusiza wonke umuntu ngoba:

- Kunikeza ababambiqhaza nabasemagunyeni ithuba lokuthola ulwazi olucacile, olushaya emhloveni noluqondakalayo mayelana nephrojekthi ye-Block Z ehlongozwayo.
- Kunikeza amalungu omphakathi ithuba lokuveza izimvo zawo (ezinhle nezimbi) mayelana nomthelela kwezemvelo wephrojekthi ye-Block Z ehlongozwayo.
- Kunikeza ababambiqhaza ithuba lokusikisela izindlela zokunciphisa noma ukudambisa noma yimuphi umthelela omubi wephrojekthi ye-Block Z ehlongozwayo, noma wokuthuthukisa izinzuzo zayo.
- Kuyokwenza ukuba Isibonelo Colliery ikwazi ukufaka izidingo, okuthandwa nokubhekwa ababambiqhaza njengokubalulekile lapho yenza izinqumo.
- Kufaka isandla ekulondolozeni ukubusa ngentando yeningi okunempilo nokunomdlandla.

Ungabandakanyeka kanjani?

- Ngokuphendula (ngocingo, ngefeksi noma nge-imeyili) isimemo sethu sokuba ubandakanyeke.
- Ngokuthumela ngeposi, ngefeksi noma nge-imeyili ifomu lezimvo elinanyathiselwe ku-WSP.
- Ngokuba khona emhlanganweni ozobanjwa phakathi nale phrojekthi ye-Block Z ehlongozwayo Uma ubhalisa njengombambiqhaza, uyomenywa ukuba ube khona kule mihlangano.
- Ngokubuyekwa uhlaka loMbiko Wokubhekwa Kwesimo, i-EIR neSichibiyelo Se-EMPR phakathi nenkathi yokubuyekwa efanele bese uthumela izimvo akho ku-WSP.



Ababambiqhaza banelungelo lokwazisa igunya elifanele nganoma yiziphi izinkinga abakholelwa ukuthi zingase zibaluleke ekucatshangelweni kwesicelo.

Amalungelo ababambiqhaza ahambisana nezibopho ezithile, okuyilezi:

- Ababambiqhaza kumelwe baqiniseke ukuthi izimvo zabo zihanjiswa phakathi nesikhathi esibekiwe esivunye yigunya elifanele, noma phakathi nanoma yisiphi isikhathi esinwetshiwe esivunye ngumfaki wesicelo noma i-EAP.
- Ikhophi yezimvo ezithunyelwe ngokuqondile egunyeni elifanele kumelwe inikezwe umfaki wesicelo noma i-EAP.
- Kumelwe badalule noma yikuphi okuzobazuzisa ngokuqondile ebhizinisini, ngokwezimali, ngokomuntu siqu noma ngenye indlela, okungase kube khona lapho kuvunywa noma kwenqatshwa isicelo.

Izindima zababambiqhaza enqubweni yokuxoxisana nababambiqhaza zivame ukuhlanganisa okukodwa noma ngaphezulu kwalokhu okulandelayo:

- Ukusiza ekuhlonzweni nasekubekweni eqhulwini kwezinkinga ezidinga ukuphenywa
- Ukwenza ukusikisela ngezindlela ezihlukile kanye nezindlela zokuvimbela, ukunciphisa nokulawula imithelela emibi nokuthuthukisa izinzuzo zephrojekthi ye-Block Z
- Ukusiza noma ukuveza uvo ngokuthuthukiswa kwezimfuneko ezamukelwa yibo bonke zokuhlaziywa kwezinqumo okungakhethwa kuzo
- Ukunikeza ngolwazi mayelana nezidingo zomphakathi, lokho okubalulekile nokulindelekile
- Ukunikeza ulwazi lwendawo nolwendabuko
- Ukuqinisekisa ukuthi izindaba abazivezile zicatshangelwe.

Ukuze babambe iqhaza ngempumelelo, ababambiqhaza kufanele:

- Basheshe babandakanyeke enqubweni futhi babhalise njengababambiqhaza
- Beluleke i-EAP ngabanye ababambiqhaza okufanele bathintwe
- Bafake isandla ekuklanyweni kwenqubo yokuxoxisana nababambiqhaza (kuhlanganise nesikhathi esibekiwe) ukuze baqinisekise ukuthi iyamukeleka kubo bonke ababambiqhaza
- Balandele inqubo uma isivunyiwe
- Bafunde izincwadi ezinikeziwe futhi bafune ukuqonda izindaba ezibandakanyekayo
- Baphendule izincwadi ngesikhathi
- Bahloniphe futhi baphathe kahle abanye ababambiqhaza

Bagweme ukwenza izinkulumo ezisekelwe emibonweni yabo, ezingenabufakazi noma ngezinto abangenalwazi olwanele ngazo

- Baqaphele ukuthi inqubo igcina ezindabeni ezihlobene ngokuqondile nesicelo
- Basize ngokunikeza ulwazi oluzoba nesandla ocwaningweni olubanzi.

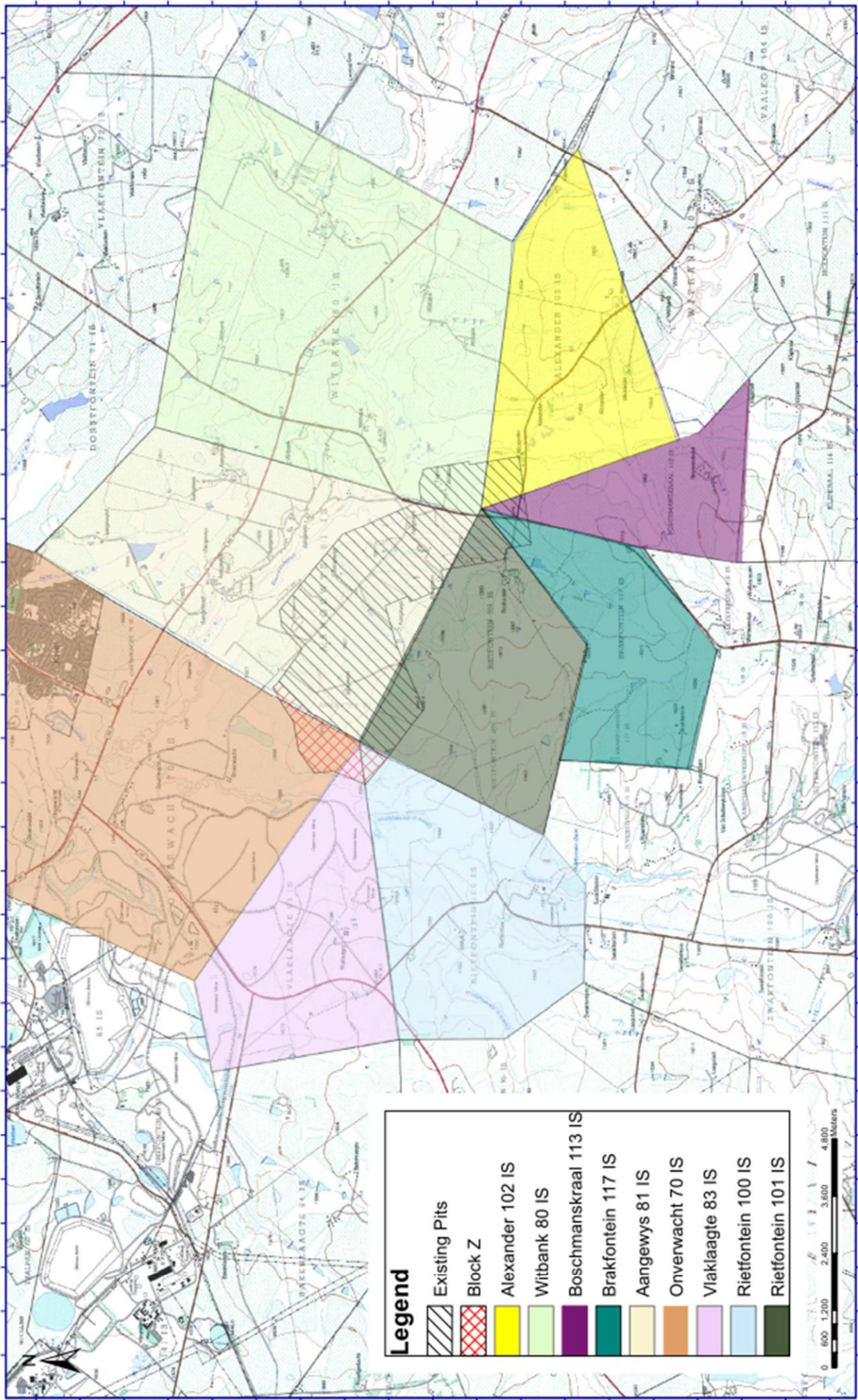
Ukuze ubhalise njengombambiqhaza enqolobaneni yolwazi lwephrojekthi, sicela ugcwalise ifomu elinanyathiselwe bese ulibuyisela kummeleli we-WSP ofanele njengoba kubekwe imininingwane ngezansi:

I-WSP yaqokwa yi-AATC: IC njenge-EAP ukuba yenze izinqubo zesigunyazo sezemvelo ze-Block Z ehlongozwayo futhi isingathe ukuxoxisana nababambiqhaza.












Ukuze ube umbambiqhaza obhalisile futhi uqiniseke ukuthi zonke izimvo nemibuzo emayelana nale phrojekthi ye-Block Z ehlongozwayo kubhalwa ngokunembile futhi kunakwe, sicela uthumele imininingwane yokuxhumana nawe nezimvo zakho (engakedluli umhla ka-4 Agasti 2014) kuleli *khasi lokuphendula* elinanyathiselwe lapha:

Okuxhunyanwa Naye: Zaffar Hussain
Inkampani: WSP Environmental (Pty) Ltd
Ikheli: P.O. Box 98867, Sloane Park, 2152
Ucingo: +27 11 361 1387
Ifeksi: +27 11 361 1381
I-imeyili: Zaffar.Hussain@WSPGroup.co.za





Legend

-  Existing Pits
-  Block Z
-  Alexander 102 IS
-  Witbank 80 IS
-  Boschmanskraal 113 IS
-  Brakfontein 117 IS
-  Aangewys 81 IS
-  Onverwacht 70 IS
-  Vlaklaagte 83 IS
-  Rietfontein 100 IS
-  Rietfontein 101 IS



<p>Anglo American Thermal Coal: Isibonelo Colliery</p> <p>Farm Boundaries</p>	<p>Data Source: South African Department of Rural Development and Land Reform - Chief Directorate: National Geo-spatial Information</p>	<p>Project: Proposed Block Z Project</p>	<p>Date: 28 March 2014</p>
	<p>Projection: Geographic - WGS1984</p>	<p>Project No.: 39644</p>	<p>Figure No.:</p>
		<p>Drawn by: Jared O'Brien</p>	
		<p>Reviewed by: Janna Bedford-Owen</p>	



www.wspenvironmental.co.za

Iphesha Lokubhalisa Nokuveza Uvo

I-BLOCK Z E EHLONGOZWAYO YE-ANGLO AMERICAN THERMAL COAL: ISIBONELO COLLIERY, EMPUMALANGA (Irifarensi Ye-MDEDET: 17/2/3N-362)

Ukuze ube umbambiqhaza obhalisiwe futhi uqiniseke ukuthi zonke izimvo nemibuzo emayelana nale phrojekthi kubhalwa ngokunembile futhi kucatshangelwe, sicela uthumele izimvo akho (engakedluli umhla ka-4 August 2014) kanye neminingwane yokuxhumana nawe kanye nekhasi lokuphendula elinanyathiselwe lapha:

Zaffar Hussain
WSP Environmental (Pty) Ltd
Ikheli: P.O. Box 98867, Sloane Park, 2152
Ucingo: +27 11 361 1387
feksi: +27 11 361 1381
I-imeyli: Zaffar.Hussain@WSPGroup.co.za

Sicela ufake iminingwane yokuxhumana nawe lapha ngezansi:

Igama:				
Inhlangano Nesikhundla:				
Ikheli:				
Ucingo:				
Ifeksi:				
I-imeyli:				
Ngingathanda ukuthola izaziso zami: (sicela ufake uqhushi ebhokisini elifanele)	Ngencwadi (ngeposi)	Nge-imeyli	Ngefeksi	Ngocingo

Ngokuvumelana ne-GNR 543 (iziqondiso zenqubo ye-EIA) sicela udalulela lapha ngezansi noma yikuphi okuzokuzisa ngokuqondile ebhizinisini, ngokwezimali, ngokomuntu siqu noma ngenye indlela, okungase kube khona lapho kuvunywa noma kwinqatshwa isicelo sesigunyazo sezemvelo:

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Sicela usho iqhaza ofisa ukulibamba kule phrojekthi kanye nezimvo zakho ngezansi:

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Isignesha


Usuku

Isibonelo Colliery Proposed Block Z Open Cast Pit Background Information Document Distribution List

20 June 2014

Name	Physical Address	Contact Details (email/fax/tel)	Signature	Site owner (Y/N)	Will pass onto Landowner (Y/N)
Elizabeth	twee draai accomodation.	Amnettel 083 9898023	<i>[Signature]</i>	Y	Y
Tremboelwe	SASOL Syterfontein mine	0720467351	<i>[Signature]</i>	N	Y
Mavis	<i>[Signature]</i>			N	Y
TOMMY. CHARTER.	SWAKFONTEIN FARM.	P.O. Box 18 TRICHART 2300 0722865592	<i>[Signature]</i>	YES.	—
Sf. Maisela	Pietfontein farm	0766 34 5565	<i>[Signature]</i>	Y	Y
V. MBIKO	CNR OF LOUREN MULLER STREET	017-6206183	<i>[Signature]</i>	N	—
H. Dunn.	Farm Witjansak	dunnhb@yahoo.com 0825713763	<i>[Signature]</i>		
<i>[Signature]</i>	<i>[Signature]</i>	0825562291	<i>[Signature]</i>		



Name	Physical Address	Contact Details (email/fax/tel)	Signature	Site owner (Y/N)	Will pass onto Landowner (Y/N)
MBUZANA	ISIBONELO	011 620 2755			



Date/Time: 25. Jun. 2014 11:44

File No. Mode	Destination	Pg(s)	Result	Page Not Sent
4807 Memory TX	00115221727 00115224458	P. 9	OK OK	

Reason for error
 E. 1) Hang up or line fail
 E. 2) Busy
 E. 3) No answer
 E. 4) No facsimile connection
 E. 5) Exceeded max. E-mail size

Our Reference: 39994
 MOEDET reference: 17/2/3N-362



20 June 2014

To Whom It May Concern,

LETTER OF NOTIFICATION: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELI COLLIERY LOCATED IN GOVAN BIBEKI LOCAL MUNICIPALITY, MPUMALANGA

WSP Environmental (Pty) Ltd (WSP) has been appointed by Anglo American Thermal Coal (AATC) Isiboneli Colliery (IC) as the independent environmental assessment practitioner to facilitate the Scoping and Environmental Impact Reporting (SEIR) and associated stakeholder engagement process for the proposed Block Z Open Cast Pit (Block Z).

The proposed Block Z is approximately 141ha with a coal capacity of 9 million tons and was initially proposed to be mined by Kholi Colliery via underground methods. Following further investigation (including several specialist studies) it was deemed impractical to mine Block Z via underground methods and as such, a decision was made to allow Isiboneli Colliery to mine the area using opencast methods.

The proposed project involves listed activities contained in the National Environmental Management Act (No. 107 of 1998) (NEMA), with specific reference to Government Notice Regulation (GNR) 544 and 545. In accordance with the NEMA, a SEIR process must be undertaken for the proposed project. In addition, the proposed Block Z project will require a Water Use License Application (WULA) in accordance with the National Water Act (No. 36 of 1998) (NWA) as well as an Environmental Management Programme Report (EMPR) Amendment process and Mining Rights Amendment Application according to the Mineral and Resources Development Act (No. 28 of 2002) (MRDA).

Please refer to the attached background information document for further detail. The period in which to comment has been extended by two weeks to account for the school holidays and will occur from 20 June – 4 August 2014.

Should you wish to register as a stakeholder, please submit your details to Zaffar Hussain by 4 August 2014.

Should you have any questions, please do not hesitate to contact the undersigned.

Kind Regards,

Zaffar Hussain
 Consultant
 Tel: 011 361 1387
 Fax: 011 361 1384
 Email: Zaffar.Hussain@wspgroup.co.za

WSP Environmental (Pty) Ltd
 101 River Road
 2013 Bedfordview
 Johannesburg
 Tel: +27 (0)11 361 1387
 Fax: +27 (0)11 361 1384
 Email: info@wspgroup.co.za
 Web: www.wspgroup.co.za

List of REGISTERED LETTERS
Lys van GEREGISTREERDE BRIEWE
(with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volg en spoor

Name and address of sender:
 Naam en adres van afsender: Mr ZAFFAR HUSSAIN
WSP ENVIRONMENTAL, P.O. BOX 98867
Sloane Park, 2152, RSA

Enquiries/Navrae
 Sharecall
 number/nommer

0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-Kliëntafskrif	
1	Mr Petros Mahlangu P.O. Box 31103					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 657 ZA	
2	Kriel 2271					CUSTOMER COPY 301028R	
3	Gawie & Kobie De Wet PO Box 53					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 692 ZA	
4	Trichardt 2300					CUSTOMER COPY 301028R	
5	Mr J Malaza P.O. Box 449					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 675 ZA	
6	Bethal 2310					CUSTOMER COPY 301028R	
7	B. Muller P O BOX 19					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 658 ZA	
8	KINROSS					CUSTOMER COPY 301028R	
9	Mr Wimpi P.O. Box 1688					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 635 ZA	
10	suite 120 Marobert 1050					CUSTOMER COPY 301028R	
Number of letters posted Getal briewe gepos		5	Total Totaal	R	R	R	R

Signature of client
 Handtekening van klient.....

Signature of accepting officer
 Handtekening van aanneembeampte.....

The value of the contents of these letters is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100.00. No compensation is payable without documentary proof. Optional insurance of up to R200.00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie briewe is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100.00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering van tot R2 000.00 is beskikbaar en is slegs binnelandse geregistreerde briewe van toepassing.



Mr ZAFFAR HUSSAIN
WSP ENVIRONMENTAL, P.O. BOX 98867
Stoane Park, 2152, RSA

Mr Petros Mahlangu
P.O. Box 31103
Kriel
2271

Gawie & Kobie De Wet
PO Box 53
Trichardt
2300

Mr J Malaza
P.O. Box 449
Bethal
2310

B. Muller
P O BOX 19
KINROSS

Mr Wimpi
P.O. Box 1688
suite 120
Marobert
1050

Affix Track and Trace
customer copy

Plak Volg-en-Spoor-
Kliëntafskrif

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 689 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 692 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 675 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 658 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 635 ZA

A BOOK COPY

Handwritten notes: "C", "0866 1000015788900000", "Camdenon"

Handwritten number: "15"

Handwritten signature



List of REGISTERED LETTERS
Lys van GEREgistreerde BRIEWE
(with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volg en spoor

Name and address of sender: Mr ZAFFAR HUSSAIN
 Naam en adres van afsender: WSP ENVIRONMENTAL, P.O. Box 98867
Sloane Park, 2152, RSA

Enquiries/Navrae
 Sharecall
 number/nommer
0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-Kliëntafskrif
1	Mr Marius Leach P.O. Box 452					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 644 ZA CUSTOMER COPY 301028R
2	Bethal Witbank					
3	B.J.J. vd Merwe P.O. Box 452					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 525 ZA CUSTOMER COPY 301028R
4	Witbank Bethal					
5	Ms Johan Holtzhausen P.O. Box 557					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 613 ZA CUSTOMER COPY 301028R
6	Bethal 2310					
7	Mr Frans Geysler PO Box 2143					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 627 ZA CUSTOMER COPY 301028R
8	Kinross 2270					
9	Mr J.D.P. Venter P.O. Box 78,					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 595 ZA CUSTOMER COPY 301028R
10	Bethal 2310					
Number of letters posted Getal briewe gepos						
5						
Total Totaal		R	R	R	R	

Signature of client
 Handtekening van kliënt.....

Signature of accepting officer
 Handtekening van aanneembeampte.....

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Mr ZAFFAR HUSSAIN
WSP ENVIRONMENTAL, P.O. BOX 95867
Stoane Park, 2152, RSA

Mr Marius Leach
P.O. Box 452
Bethal
Witbank

B.J.J. vd Merwe
P.O. Box 452
Witbank
Bethal

Ms Johan Holtzhausen
P.O. Box 557
Bethal
2310

Mr Frans Geyser
PO Box 2143
Kinross
2270

Mr J.D.P. Venter
P.O. Box 78,
Bethal
2310

Affix Track and Trace
customer copy

Plak Volg-en-Spoor-
Kliëntafskrif

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 644 ZA
A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 525 ZA
A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 613 ZA
A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 627 ZA
A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 595 ZA
A BOOK COPY

5



List of REGISTERED LETTERS
Lys van GEREGISTREERDE BRIEWE
(with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volg en spoor

Name and address of sender: Mr ZAFFAR HUSSAIN
 Naam en adres van afsender: WSP ENVIRONMENTAL, P.O. BOX 98867
Sloane Park, 2152, RSA

Enquiries/Navrae
 Sharecall
 number/nommer
0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-Kliëntafskrif
1	Mr D.S. du Toit P.O. Box 2192 Rietfontein					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 600 ZA CUSTOMER COPY 301028R
2	Bethal 2310					
3	L.C. vd Merwe P.O. Box 67					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 573 ZA CUSTOMER COPY 301028R
4	Witbank Bethal.					
5	2310					
6	M.M. J v Rensburg RG 1					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 587 ZA CUSTOMER COPY 301028R
7	P.O.Box 1467 Bethal					
8	2310					
9	Gerhard Holtzhausen P.O. Box 557					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 556 ZA CUSTOMER COPY 301028R
10	Bethal 2310					

Number of letters posted 4 Total
 Getal briewe gepos 4 Totaal R R R R

Signature of client
 Handtekening van kliënt.....

Signature of accepting officer
 Handtekening van aanneembeampte.....

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BRYANSTON
 Date stamp
 25 JUN 2014
 7
 2021
 Datumstempel

Mr ZAFFAR HUSSAIN
WSP ENVIRONMENTAL, P.O. BOX 98867
Stane Park, 2152, RSA

Mr D.S. du Toit
P.O. Box 2192
Rietfontein
Bethal
2310

L.C. vd Merwe
P.O. Box 67
Witbank
Bethal.
2310
M.M. J v Rensburg
RG 1
P.O.Box 1467
Bethal
2310

Gerhard Holtzhausen
P.O. Box 557
Bethal
2310

Affix Track and Trace
customer copy

Plak Volg-en-Spoor-
Kliëntafskrif

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 600 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 573 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 587 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)
RD 841 980 556 ZA

A BOOK COPY

4



List of REGISTERED LETTERS
Lys van GEREgistreerde BRIEWE
(with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volg en spoor

Name and address of sender: Mr ZAFFAR HUSSAIN
 Naam en adres van afsender: WSP ENVIRONMENTAL, P.O. Box 98867
Sloane Park, 2152, RSA

Enquiries/Navrae
 Sharecall
 number/nommer
0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-Kliëntafskrif
1	Mr Tommy Charter P.O. Box 18 Trichardt					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 560 ZA CUSTOMER COPY 301028R
2	2300					
3	Mr Stoffel Potgieter P.O. Box 557					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 542 ZA CUSTOMER COPY 301028R
4	Bethal 2310					
5	Mr Wessel Swart P.O. BOX 779					REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 841 980 539 ZA CUSTOMER COPY 301028R
6	Bethal 2310					
7						
8						
9						
10						

Number of letters posted 3 Total R R R R
 Getal briewe gepos Totaal

Signature of client
 Handtekening van kliënt.....

Signature of accepting officer
 Handtekening van aanneembeampte.....

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Mr ZAFFAR Hussain
WSP ENVIRONMENTAL, P.O. Box 98867
Sloane Park, 2152, RSA

Mr Tommy Charter
P.O. Box 18
Trichardt
2300

Mr Stoffel Potgieter
P.O. Box 557
Bethal
2310

Mr Wessel Swart
P.O. BOX 779
Bethal
2310

Affix Track and Trace
customer copy

Plak Volg-en-Spoor-
Kliëntafskrif

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 560 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 542 ZA

A BOOK COPY

REGISTERED LETTER
(with a domestic insurance option)

RD 841 980 539 ZA

A BOOK COPY

3



2014-06-23 13:38:34.0	27829090604	11	Delivered to phone	2782007229288017	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:41:33.0	361262709
2014-06-23 13:38:34.0	27824613377	11	Delivered to phone	2782007229288019	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:43.0	361262709
2014-06-23 13:38:34.0	27766521282	11	Delivered to phone	2782007229288023	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:45.0	361262709
2014-06-23 13:38:34.0	27834472867	11	Delivered to phone	2783326006288007	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:00.0	361262709
2014-06-23 13:38:34.0	27760910188	11	Delivered to phone	2782007229288018	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:48.0	361262709
2014-06-23 13:38:34.0	27718732339	11	Delivered to phone	2783326006288001	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:00.0	361262709
2014-06-23 13:38:34.0	27826574777	11	Delivered to phone	2782007229288014	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:46.0	361262709
2014-06-23 13:38:34.0	27711062438	10	Delivered upstream	2782007229288008	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more		361262709
2014-06-23 13:38:34.0	27825513632	11	Delivered to phone	2782007229288015	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:47.0	361262709
2014-06-23 13:38:34.0	27732180085	10	Delivered upstream	2783930060888021	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more		361262709
2014-06-23 13:38:34.0	27824963256	11	Delivered to phone	2782007229288023	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:46.0	361262709
2014-06-23 13:38:34.0	27761234371	11	Delivered to phone	2782007229288019	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:47.0	361262709
2014-06-23 13:38:34.0	27824185966	11	Delivered to phone	2782007229288000	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:49.0	361262709
2014-06-23 13:38:34.0	27825713763	11	Delivered to phone	2782007229288001	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:48.0	361262709
2014-06-23 13:38:34.0	27828402261	11	Delivered to phone	2782007229288000	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:45.0	361262709
2014-06-23 13:38:34.0	27824440471	11	Delivered to phone	2782007229288005	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:45.0	361262709
2014-06-23 13:38:34.0	27780018923	11	Delivered to phone	2783326006288017	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:00.0	361262709
2014-06-23 13:38:34.0	27835764688	11	Delivered to phone	2783326006288016	Notification of Anglo Operation Ltd.:Isonelo Colliery proposed Block Z opencast pit S&EIA process(Ref: 17/23N-362). Contact WSP_Mr Hussain 01 13611387 for more	2014-06-23 13:38:00.0	361262709

Bedford-Owen, Janna

From: Hussain, Zaffar
Sent: 20 June 2014 02:24 PM
Cc: Bedford-Owen, Janna
Subject: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)
Attachments: 39664_Block Z_Final BID_June 2014 (English).pdf; 39664_Block Z_Notification letter_June 2014.pdf

Dear Stakeholder,

Anglo American Thermal Coal (AATC) : Isibonelo Colliery (IC) proposes develop an open cast pit (Block Z) adjacent to their current operations. Stakeholder engagement forms part of the required legislated environmental authorisation process. This email serves to provide you as an identified stakeholder with a Notification Letter and Background Information Document for the Proposed Mining of Block Z.

The attachments have been translated into Afrikaans and Zulu, and should you require these translated version please do not hesitate to contact the undersigned.

Should you wish to register as a stakeholder for the proposed project, please complete the Registration and Comments Sheet (page 7 of the BID) and return to the undersigned. We trust you find the above in order however, should you have any queries / comments, please don't hesitate to contact WSP.

Kind Regards,

Zaffar Hussain
Environmental Consultant



WSP, Environment & Energy, Africa
WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
Tel: +27 11 361 1387
Mob:
Fax: +27 11 361 1381

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WSP Environmental (Pty) Ltd, Registered Office: WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa Registered Number: 1999/008928/07 South Africa

Bedford-Owen, Janna

From: Hussain, Zaffar
Sent: 26 June 2014 04:32 PM
Cc: Bedford-Owen, Janna
Subject: Environmental Authorisation Process for the Proposed Isibonelo Colliery Block Z Opencast Mine (MDEDET Ref: 17/2/3N-362)
Attachments: 39664_Block Z_Final BID_June 2014 (English).pdf; 39664_Block Z_Notification letter_June 2014.pdf

Dear Stakeholder,

Anglo American Thermal Coal (AATC) : Isibonelo Colliery (IC) proposes develop an open cast pit (Block Z) adjacent to their current operations. Stakeholder engagement forms part of the required legislated environmental authorisation process. This email serves to provide you as an identified stakeholder with a Notification Letter and Background Information Document for the Proposed Mining of Block Z.

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Kind Regards,

Zaffar Hussain
Environmental Consultant



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WSP Environmental (Pty) Ltd, Registered Office: WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa Registered Number: 1999/008928/07 South Africa

MEETING NOTES



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Job Title	Environmental Authorisation processes for the proposed opencast mining of Block Z
Project Number	39664
Date	21 August 2014
Time	15:00 - 18:00
Venue	Brunfelsia Estate (8km east of Trichardt)
Subject	Public Meeting
Client	Anglo American Coal: Isibonelo Colliery (AAC:IC)
Present	Kenneth Mokoena (KM), Fikile Mokwena (FM), Jared O'Brien (JO), Linah Mavimbela (LM), Stewart Mandivheyi (SM), Janna Bedford-Owen (JBO), and Kim Allan (KA). <i>Note: Stakeholder names are not included above. Refer to Appendix for full list of attendees.</i>
Attachments	Appendix A – Attendance register; and Appendix B – WSP Presentation.

<i>Item Discussed</i>	<i>Action</i>
Welcome and Introduction	
<p>JBO welcomed all and thanked Mr Greyling for attending the public meeting before handing over to LM who extended a welcome to WSP and Mr Greyling on behalf of the mine representatives.</p> <p>JBO extended apologies for the absence of the Mine General Manager who had other work commitments, as well as Mr Sebastiaan Crous.</p> <p>JBO requested each of the meeting attendees introduce themselves. The project team (including WSP and IC) introduced themselves followed by Mr Greyling who added that he is a the part owner of the Rietfontein Farm on which part of the Proposed Block Z Project is located (Proposed Project). Refer to Slide 3 of Appendix B.</p> <p><i>Note:</i> Ryno Beukes (RB) (Tron Boerdery representative) arrived 10 minutes into the meeting. Furthermore, Daniel Moukangwe (DM) and Kagisho Maboja (MM) arrived at the meeting 20 minutes through the presentation. DM and MM are union representatives at AAC:IC.</p>	N/A
<p>All attendees were provided with hard copies of the presentation, an A3 map of the Proposed Project and an A3 Scoping and Environmental Impact Reporting (S&EIR) process flow diagram to be used as references during the presentation.</p> <p>The following sections detail each agenda item.</p>	N/A
Presentation	
<p>JBO outlined the meeting agenda:</p> <ul style="list-style-type: none"> ■ Purpose of Meeting; ■ Conduct of the Meeting; ■ Responsibilities; ■ Project Background and Locality; ■ Project Description and Motivation; ■ Project Alternatives; ■ Legal Requirements; 	N/A

<i>Item Discussed</i>	<i>Action</i>
<ul style="list-style-type: none"> ■ Environmental Authorisation Process; ■ Stakeholder Engagement; ■ Potential Impacts; and ■ Questions and Discussion. 	
<i>Purpose of the Meeting</i>	
JBO outlined the purpose of the meeting. Refer to Slide 4 of Appendix B .	N/A
<i>Conduct of the Meeting</i>	
JBO outlined the expected conduct during the presentation. Refer to Slide 5 of Appendix B .	N/A
<i>Roles and Responsibilities</i>	
<p>JBO outlined the following project role players:</p> <ul style="list-style-type: none"> ■ AAC:IC; ■ Independent Environmental Assessment Practitioner; ■ Stakeholders; and ■ Authorities. <p>Furthermore, JBO explained each role player's responsibility during the S&EIR process. Refer to Slides 7 and 8 of Appendix B.</p>	N/A
<i>Project Background</i>	
JBO provided a brief Proposed Project background to provide context for the presentation slides to follow. Refer to Slides 10, 12, 17, 18 and 19 of Appendix B .	N/A
<i>Project Locality</i>	
<p>JBO explained the Proposed Project location using a detailed map. The map indicated the following:</p> <ul style="list-style-type: none"> ■ Farm names; ■ Surrounding farmers properties; ■ The location of the previously considered mining area; ■ The Dwars-in-die-wegspruit; ■ A 5 km radius from the centre of the Proposed Project; ■ Direction/distance of surrounding towns; and ■ The existing mining operation of the AAC:IC. <p>Refer to Slides 11, 13 and 14 of Appendix B.</p>	N/A
<i>Project Motivation</i>	
<p>JBO outlined the following as the primary Proposed Project motivations:</p> <ul style="list-style-type: none"> ■ Contractual agreement with Sasol; ■ Employment requirements; ■ Economy considerations; and ■ Mining method feasibility. <p>Refer to Slide 20 of Appendix B.</p>	N/A





<i>Item Discussed</i>	<i>Action</i>
<i>Project Alternatives</i>	
<p>JBO indicated the following as being alternative considerations during the S&EIR Process:</p> <ul style="list-style-type: none"> ■ Location Alternatives; ■ Mining Method; and ■ No-go Alternative. <p>Refer to Slide 21, 22, 23 and 24 of Appendix B.</p>	N/A
<i>Legal Requirements</i>	
<p>JBO indicated the following legal requirements as being applicable to the Proposed Project:</p> <ul style="list-style-type: none"> ■ <u>National Environmental Management Act (No. 107 of 1998) (NEMA)</u> <p>JBO explained the difference between Government Notice Regulation (GNR) 544 (requiring a Basic Assessment process) and GNR 545 (requiring an S&EIR process). She concluded that the Proposed Project proposes to undertake activities listed in both regulations and as such AAC:IC is required to undergo a S&EIR process in order to receive environmental authorisation in accordance with the NEMA.</p> <ul style="list-style-type: none"> ■ <u>Minerals and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA)</u> <p>JBO explained that an Environmental Management Programme Report (EMPR) and Mining Right Amendment processes are required for the Proposed Project. JBO explained that the environmental authorisation processes (i.e. the NEMA and MPRDA processes) have been aligned to reduce reporting duplication.</p> <ul style="list-style-type: none"> ■ <u>National Water Act (No. 36 of 1998)</u> <p>JBO indicated that a water use license is required prior to the establishment of the Proposed Project.</p> <p>JBO, by use of the process flow chart (refer to Slide 27 of Appendix B), described the three different environmental authorisations required and the associated timeframes.</p> <p>Refer to Slide 26 and 27 of Appendix B.</p>	N/A
<i>Stakeholder Engagement Process</i>	
<p>JBO outlined the stakeholder engagement requirements associated with the S&EIR process. Noting that these requirements are prescribed by NEMA GNR 543, MPRDA and NWA (regulation). JBO further detailed the stakeholder engagement process followed to date as well as the process to be followed during the EIA phase (way forward).</p> <p>KA emphasised that comments raised during the course of the S&EIR process will be considered and responded to by WSP in consultation with AAC:IC.</p> <p>Refer to Slide 28, 29 and 30 of Appendix B.</p>	N/A
<i>Potential Impacts</i>	
<p>JBO listed the below environmental aspects which may be impacted by the Proposed Project. She added that aspects highlighted with an asterisk will be further assessed by a specialist during the EIA phase.</p> <ul style="list-style-type: none"> ■ Geology ■ Topography* ■ Air Quality* ■ Soil, Land Use and Land Capability* ■ Biodiversity* ■ Heritage* ■ Hydrology and Geohydrology* ■ Noise and vibration* 	N/A

Item Discussed	Action
<ul style="list-style-type: none"> ■ Visual ■ Socio*-economic <p>JBO provided a summary of the potential expected impacts on each environment resulting from the Proposed Project.</p> <p>Refer to Slide 33, 34, 35, 36, 37, 38 and 39 of Appendix B.</p>	
Specialist Studies	
<p>The following specialist studies will be undertaken (or have been undertaken) to date:</p> <ul style="list-style-type: none"> ■ Air Quality Impact Assessment (WSP); ■ Noise Impact Assessment (WSP); ■ Hydrology Assessment (WSP); ■ Social Impact Assessment (WSP); ■ Blasting and Vibration Impact Assessment (Blast Management); ■ Heritage (archaeology) Impact Assessment (Archaenos); ■ Biodiversity and Wetlands Assessment (Natural Scientific Services); ■ Geohydrology Impact Assessment (JMA Consulting); and ■ Land Capability and Land Use Impact Assessment (Earth Science Solutions). <p>Refer to Slide 40 of Appendix B.</p>	N/A
Way Forward	
<p>JBO outlined the Way Forward as follows:</p> <ul style="list-style-type: none"> ■ Close of public review period- 12 September 2014; ■ Finalisation of the Scoping Report and submission to authorities- Week of 15 September 2014; ■ Authority review- 15 September – 15 October 2014 (this period may be extended by the authority); and ■ Expected commencement of Impact Assessment Phase- October 2014 (on receipt of confirmation from Authority). <p>Refer to Slide 41 of Appendix B.</p> <p>JBO indicated that any WSP project team member may be contacted at any stage of the project life cycle. Details provided on Slide 42 of Appendix B.</p>	N/A
Questions and Answers	
<ul style="list-style-type: none"> ■ Statement: RB (farmer) indicated that he is happy with the Proposed Project. He explained that shifting of the Proposed Project area from the previously planned location the new Proposed Project location (Block Z) is beneficial to him and the local farmers . The previous location proposed would have resulted in the potential loss of arable land. RB then left the meeting – no further questions. ■ The team noted and accepted the comment. ■ Question: Mr Greyling requested clarity on exactly where the proposed Block Z area is. ■ Answer: JBO described that the red area on the map depicts the proposed mining area of the Proposed Project. ■ Question: Mr Greyling requested clarity on where the existing AAC:IC mining blocks are located. ■ Answer: JBO, by use of the locality map on the presentation, explained that the current mining operations and the location of the existing pits at AAC:IC include: <ul style="list-style-type: none"> - North pit; - South pit; and - Central pit. ■ Question: Mr Greyling noted that North pit is extending into his property (purple highlight 	<p>N/A</p> <p>N/A</p> <p>N/A</p>



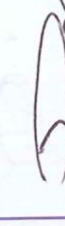


Item Discussed	Action
<p>on the map). He further noted that mine management have, to date, not made him aware of the mine plans extending into his properties from a North pit. Mr Greyling met with mine management over the last week and was concerned about the 'piece meal' approach being undertaken. i.e. mine management discussing different stages at different times. Mr Greyling emphasised that he has his own forward planning to make provision for and therefore requires an overview of proposed mine plans to complete such successfully. As such, he requested a date by which the North pit will extend into his property as well as the Proposed Project (i.e. by when he will notice the impact of the North Pit and Block Z opencast mining areas).</p> <ul style="list-style-type: none"> ■ Answer: JBO explained that this area (the purple area - North pit) already forms part of the mine planning and is included in the current approved EMPR. LM added that the mine plan extends up until 2026. KM noted that he would double check the exact projections of mining activities into Mr Greyling's property and send relevant information (proposed dates) to Mr Greyling. SM added that AAC:IC does not have surface rights and as such would need to purchase the land from Mr Greyling in the future. ■ Question: Mr Greyling requested a site visit on the mine in order for him to understand upto what point exactly on his property mining will be extending (i.e. exact co-ordinates). ■ Answer: KM to propose a date for the site visit in due course. ■ Question: Mr Greyling asked how WSP will assess the impact of the Proposed Project on food security (i.e. mining instead of cultivation). He emphasised that this aspect needs to be considered during the impact study. ■ Answer: Land capability specialist will be assessing this aspect. The assessment findings will be conveyed to the stakeholders during the EIR phase. JBO to notify the specialist to ensure sufficient management measures are proposed in the Environmental Impact Assessment Report (EIAR). ■ Statement: Mr Greyling indicated that another mining group has laid claim to his land. He added that the company has been drilling in the area (prospecting). The drilling extends further to the south than where the Proposed Project is located. 6-8 holes have been drilled by the company to date (drilling took place early in 2013). His understanding is that the company has prospecting rights to do so. Mr Greyling requested clarity on who has or has the prospecting and mining rights to the land. He noted that he believes the mining company name is: Kusile Mining Company. ■ Statement: Mr Greyling further indicated that Sasol also approached him with land rights claims. Sasol did make mention of the swapping of underground vs above ground mining with AAC:IC. ■ Response: JBO noted that the Anglo legal team have been involved and indicated that the propsecting mining rights have been awarded to Anglo. JBO added that when Mr Greyling undertakes the site visit, a close out meeting with the mine manager should be held in which to discuss the issues raised. 	<p>WSP and IC</p> <p>WSP and IC</p> <p>WSP</p> <p>WSP and IC</p>
<ul style="list-style-type: none"> ■ Statement: Mr Greyling indicated that the first he heard of the Proposed Project was upon receipt of the WSP notice letter. He however was aware of the evaluation of his property being undertaken by AAC:IC but no formal indication of desire to purchase his land has been received to date. ■ Response: Comment noted. WSP be sure to keep Mr Greyling up dated on project related progress while IC continue to liaise with Mr Greyling on property and related matters. ■ Question: Mr Greyling is concerned about dust and vegetation issues that may result from the Proposed Project. How can he understand what the impact will be? ■ Answer: WSP is undertaking a biodiversity impact assessment to identify impacts which may result from the Proposed Project. JBO indicated that the assessment will also look at predicting impacts in the future. Furthermore, the assessment goes beyond the boundaries of the Proposed Project area. <p>JBO also outlined that the specialist will assess the Proposed Project impact, devise a management plan and then reassess the impacts with mitigation measures applied. KA noted that during the EIR phase of the process, the specialists will be made available to attend the public meeting to further describe the assessment process in an understandable</p>	<p>WSP and IC</p> <p>WSP</p>

Appendix A – Attendance Register

ATTENDANCE REGISTER

Name	Company Name	Contact Details	Signature
Nelius Sredling	CS Sredling + Venete	Tel: 012 99711721 Fax: Mobile: 082 447 2171 Email: neliusg@gmail.com	
Linaal Mairubela	Anglo American Coal Isibonelo	Tel: 017 620 2204 Fax: 017 620 2759 Mobile: 076 922 0100 Email: linaal.mairubela@angloamerican.com	
Fikile Mkwena	Anglo American Coal SA Isibonelo	Tel: 017 620 6833 Fax: Mobile: 083 359 2668 Email: fikile.mkwena	
STEWART MADIMBEI	AAC	Tel: 017 620 6833 Fax: 017 620 2759 Mobile: 0729033456 Email: smadimbei@anglocoal.co.za	

PROPOSED MINING OF THE BLOCK Z AREA: ISIBONELO COLLIERY, MPUMALANGA PROVINCE
 Anglo American Thermal Coal: Isibonelo Colliery
 Public Meeting – 21/08/2014 16:00 – 18:00

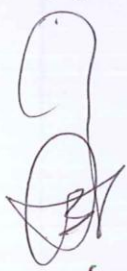

Name	Company Name	Contact Details	Signature
Kenneth Mokoena	AAC	Tel: 017 620 2714 Fax: Mobile: 072 6353 633 Email: kenneth.mokoena@angloamerican.com	
J. Bedford-Owen	WSP	Tel: 011 361 1371 Fax: Mobile: 082 302 8331 Email: jona.bedford-owen@wspgroup.co.za	
Jared O'Brien	WSP	Tel: 011 361 1396 Fax: 086 505 3957 Mobile: 084 9512184 Email: jared.o'brien@wspgroup.co.za	
Kim Allan	WSP	Tel: 011 361 1376 Fax: Mobile: 083 809 7732 Email: kim.allan@wspgroup.co.za	
R. Benkes	QA Theron Bdy	Tel: 082 496 3256 Fax: Mobile: Email: rvbenkes@gmail.com	



PROPOSED MINING OF THE BLOCK Z AREA: ISIBONELO COLLIERY, MPUMALANGA PROVINCE

Anglo American Thermal Coal: Isibonelo Colliery

Public Meeting – 21/08/2014 16:00 – 18:00

Name	Company Name	Contact Details	Signature
MABOTSONE DANIEL Mabotsonse	ISIBONELO	Tel: Fax: Mobile: 0760819566 Email: dmabotsonse@angloamerican.com	
MABOA MABOA	ISIBONELO N.U.M	Tel: (017) 620 2781 Fax: (017) 620 2759 Mobile: 084 855 6850 Email: Kagiso.Maboa@angloamerican.com	
		Tel: Fax: Mobile: Email:	
		Tel: Fax: Mobile: Email:	
		Tel: Fax: Mobile: Email:	

Appendix B – WSP Presentation



Proposed Anglo American Coal: Isibonelo Colliery Block Z Open Cast Pit

Public Meeting

Date: 21 August 2014
Time: 16:00 – 18:00pm
Venue: Brunfelsia Estate



Agenda

- Welcome and Introduction
- Purpose of Meeting
- Conduct of the Meeting
- Responsibilities
- Project Background and Locality
- Project Description and Motivation
- Project Alternatives
- Legal Requirements
 - Environmental Authorisation Process
 - Stakeholder Engagement
- Potential Impacts
- Questions and Discussion



Welcome and Introduction

- Project Proponent:
 - Anglo Operations (Pty) Ltd: Isibonelo Colliery
 - » Dirk Miller – Mine Manager
 - » [Kenneth Mokoena – Environmental Co-ordinator](#)
 - » [Fikile Mokwena](#)
 - » [Linah Mavimbela](#)
 - » [Sebastiaan Crous](#)
 - » [Stewart Mandivheji](#)
- Environmental Assessment Practitioner (EAP):
 - WSP Environmental (Pty) Ltd (WSP)
 - » Terry Harck – Project Director
 - » [Kim Allan – Project Director](#)
 - » [Janna Bedford-Owen – Project Manager](#)
 - » [Jared O'Brien – Environmental Consultant](#)
 - » Zaffar Hussain – Environmental Consultant



Purpose of the Meeting

- Provide stakeholders with information regarding:
 - The proposed project
 - The Scoping and Environmental Impact Reporting (S&EIR) process to date
 - How to get involved in the project
 - Findings of the Draft Scoping Report (DSR)
- Provide stakeholders with the opportunity to comment on the potential environmental impacts associated with the project
- Invite stakeholders to register on the project database
- Provide an opportunity for the project team to interact with stakeholders



Conduct of the meeting

- Presentation will be in English
- Focus on the issues at hand
- Questions should please be raised through the facilitator (Janna Bedford-Owen)
- Be courteous and ensure equal opportunity
- Cell phones to be switched off or on silent



Responsibilities



Responsibilities

Role-player	Responsibility
Proponent (AAC Isibonelo Colliery)	<ul style="list-style-type: none"> • Appoint suitable, independent EAP • Ensure adequate resources are available to conduct an effective, efficient and equitable S&EIR process • Ensure that the EAP is provided with relevant information to undertake the S&EIR process effectively • Ensure that the EAP provides all relevant information to the Authorities
EAP (WSP)	<ul style="list-style-type: none"> • Be independent with no vested interest • Have the necessary qualifications and experience • Responsible for authorisation process, information and reports • Provide relevant and objective information to the authorities, the stakeholders and the proponent • Ensure stakeholder engagement is undertaken • Ensure all issues raised are addressed or responded to

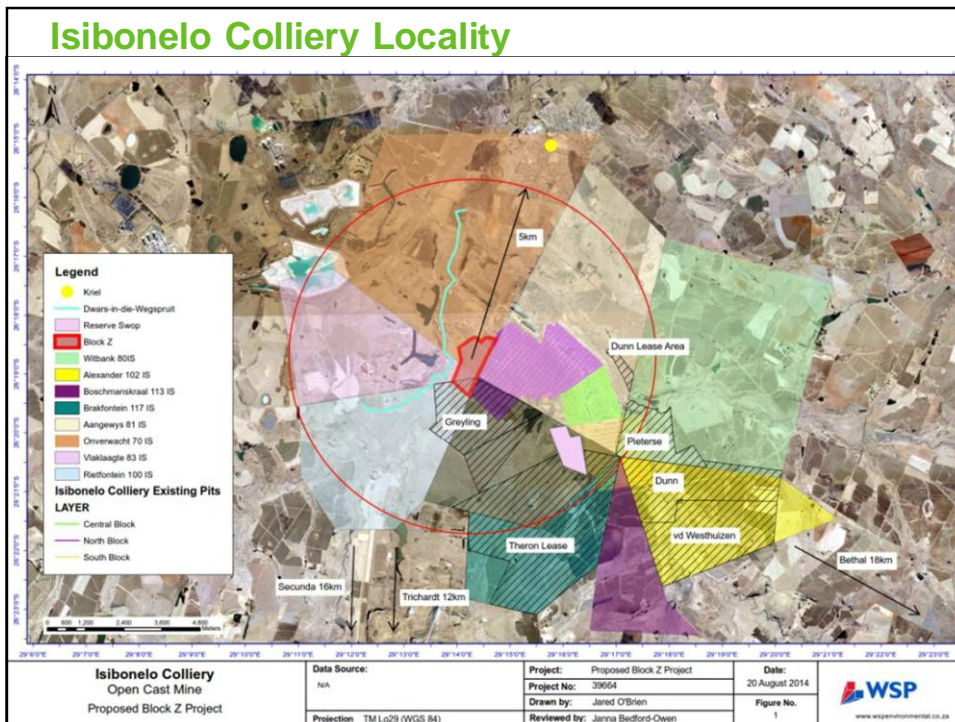


Responsibilities

Role-player	Responsibility
Stakeholders	<ul style="list-style-type: none"> • Provide input and comment during the S&EIR process • Review of reports <ul style="list-style-type: none"> • Scoping Report (SR) (8 Aug -12 Sept) • Environmental Impact Report (EIR) (during EIR Phase) • Environmental Management Programme Report (EMPR) (during EIR Phase) • Provide input and comment within specific timeframes
Decision-making Authorities (MDEDET, DMR, DWA)	<ul style="list-style-type: none"> • Efficient and expedient in evaluating proposals • Compliance with regulatory requirements • Inter-departmental co-operation and consultation • Consultation with the Proponent and the EAP • Evaluation/review and decision-making • Requiring sufficient detail to make informed decisions



Project Background and Locality



Project Background

- Isibonelo Colliery was established as an open cast operation to supply Sasol's Synthetic Fuel (SSF) plant located in Secunda.
- Only the No 4 seam is considered to be economically viable, with an average opencast depth of 40m and a thickness of 5,6m.
- Isibonelo Colliery primarily utilises the dragline strip-mining method as a means of coal removal.
- The extracted coal is delivered to the primary in-pit sizing plant, transferred via surface conveyor to a surge bunker at Syferfontein Colliery before transport to SSF.



Project Background

- Isibonelo Colliery initially proposed to mine an area that lies south of the Central Pit to fulfil the SSF contractual obligations. Following discussions between Sasol and Isibonelo Colliery, it was agreed that this area will instead be mined by Sasol and Isibonelo Colliery would identify another area for mining – namely Block Z
- The proposed Block Z Open Cast Pit is approximately 141ha with a coal capacity of 9 million tons.
- It is understood that the proposed mining of Block Z will not increase Isibonelo Colliery's existing life of mine (LoM) however it will increase its annual production rate.
- Isibonelo Colliery propose to mine Block Z using currently employed opencast methods and with existing equipment/machinery.

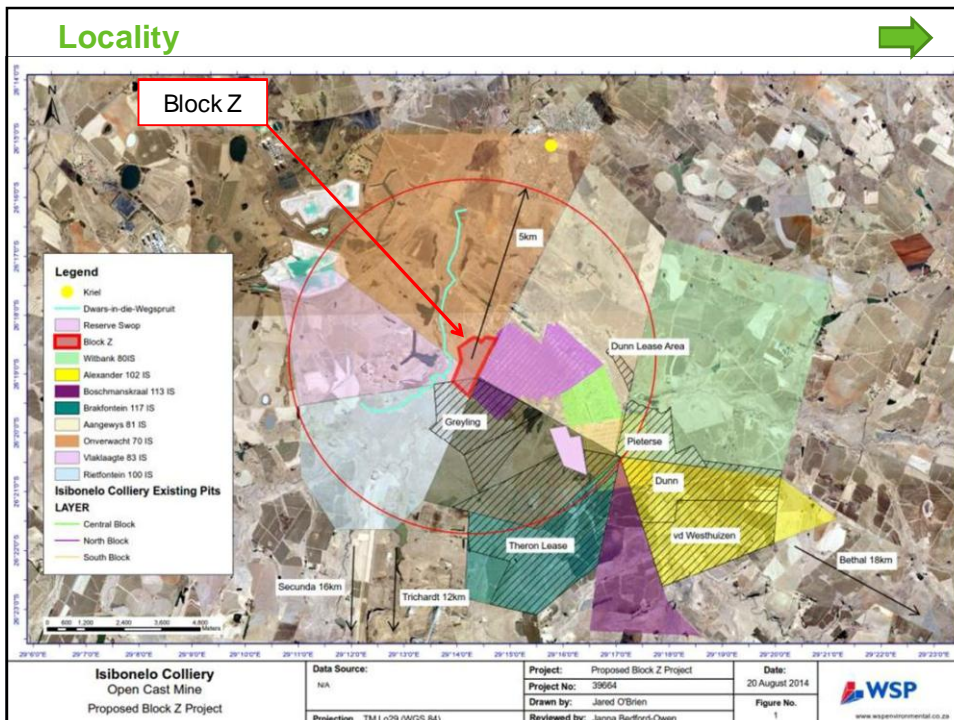


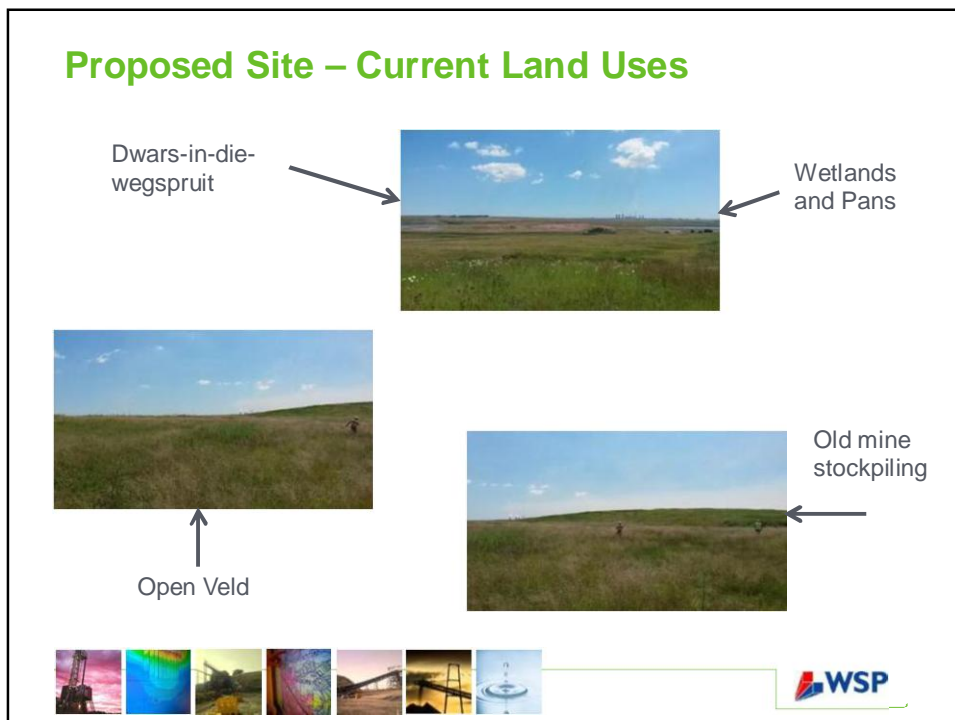
Project Locality

- The proposed Block Z Open Cast will be located west of (adjacent to) the current Isibonelo Colliery mining activities, east of the Kriel Colliery open cast and underground operations and north of the Sasol's underground Syferfontein coal mine. More specifically on the following farms:
 - Rietfontein 101 IS Portion (0) Remainder
 - Rietfontein 101 IS Portion 1
 - Rietfontein 101 IS Portion 5
 - Rietfontein 101 IS Portion 54
 - Brakfontein 117 IS Portion (0) Remainder
 - Aangewys 81 IS Portion 1
 - Alexander 102 IS Portion 2
 - Alexander 102 IS Portion 4
 - Witbank 80 IS Portion 23.
 - Brakfontein 117 IS Portion 4.



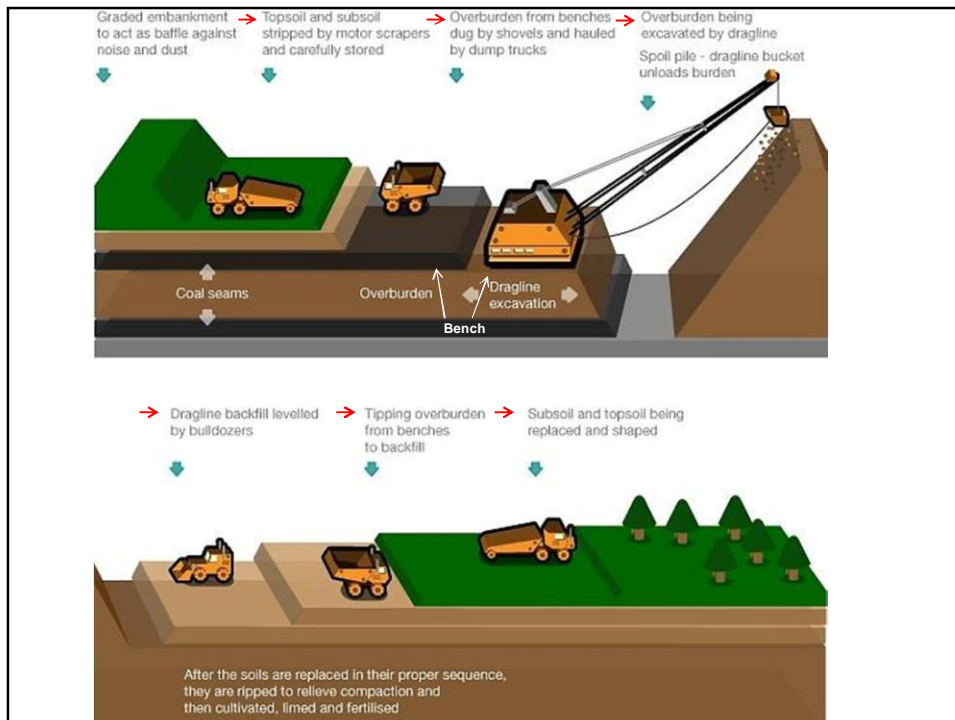
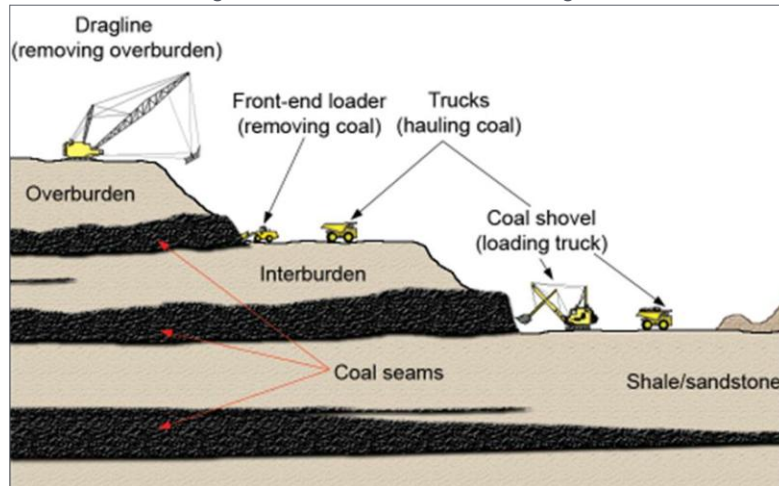
Locality





Project Description

- Conventional dragline, and truck and shovel mining methods.



Project Description

- The North Pit will be progressively extended (southerly) by the dragline after the Kriel Colliery Pit 4 straightening. No box cutting is envisaged and the dragline overburden / spoils at the end-cuts will be profiled / rehabilitated immediately:
 - Method 1: Single bench operation; where soft overburden is stripped by truck and shovel equipment and the hard overburden is bench stripped by the dragline.
 - Method 2: Double bench operation; applied in the deep portions of the pit (where the dragline hard overburden bench exceeds the dig limit).
- Isibonelo Colliery will utilise existing infrastructure, equipment and machinery, including *inter alia*:
 - Equipment e.g. Draglines, trucks, crusher plant and conveyor
 - Pollution control dam (Vaskop)
 - Storm water infrastructure (amended)
 - Offices and associated buildings
 - Workshop and stores
 - Power and water supply
 - Access road infrastructure (extension of haul roads)
 - Overburden and topsoil stockpiles



Project Motivation

- Contractual agreement
 - Fulfilment of the existing Sasol and Isibonelo Colliery contract (steady supply of coal to SSF)
- Employment (direct and indirect)
 - Job security and skills transfer
 - Contractor and local business support
- Economy
 - Continued local spend and downstream benefits
 - Contribution to local and national economy and its stability
- Mining methods
 - Utilisation of existing infrastructure and equipment
 - Implementation of existing mining methodology



Project Alternatives



Project Alternatives

Location Alternatives

- Isibonelo Colliery originally proposed to mine an area south of its existing Central Pit (approved in the Consolidated EMPR).
 - A storm water diversion channel and overburden stockpiles are located on this area.
 - Sasol and Isibonelo Colliery agreed that this area will instead be mined by Sasol.

Mining Method

- Kriel Colliery initially proposed to extend its current underground operations to mine the No.4 coal seam within the Block Z area.
 - Environmental, health and safety risks due to the required undermining of the Dwars-in-die-wegspruit.
 - Economically unviable due to the additional surface and underground mine infrastructure requirements.



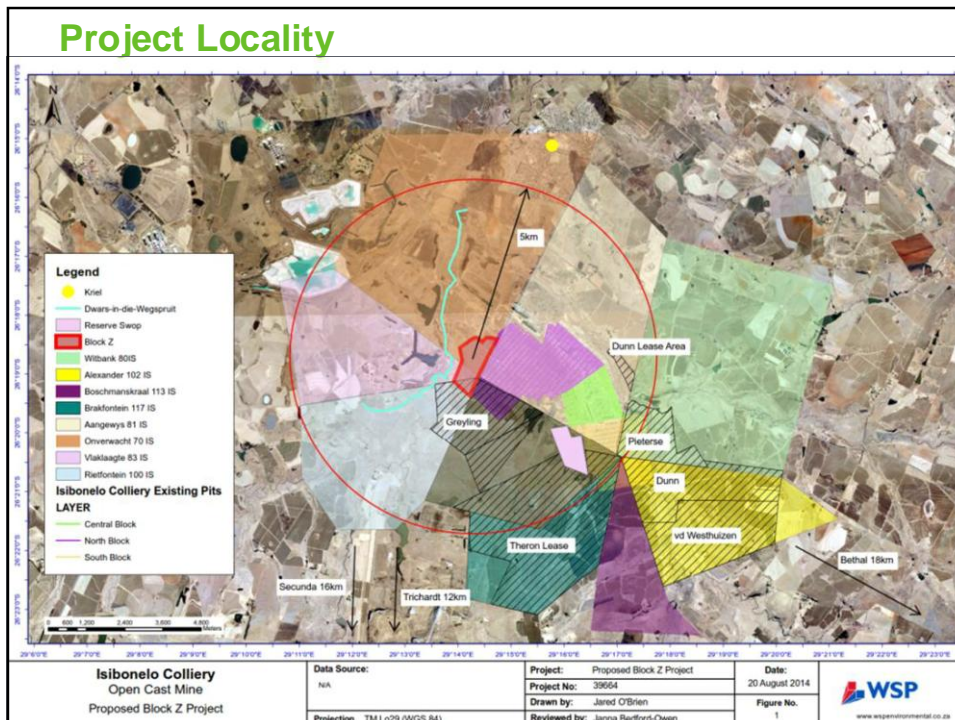
Project Alternatives

■ No-go Alternative

- The 'no-go' option will be a scenario in which there will be no mining.
- Inability for Isibonelo Colliery to fulfil contractual obligations with SSF.
- The coal reserves within the Block Z area will remain a viable but untapped commercial resource.
- Reduction in the contribution to the local and national economy (both from Isibonelo Colliery and SSF processes).
- Negative impacts on labour structure/workforce e.g. restructuring/deployment, reduced LoM and/or productivity.
- The 'no-go' scenario will result in a reduction in downstream business service opportunities to secondary industries/ suppliers/ contractors, and reduced local spend.



Project Locality



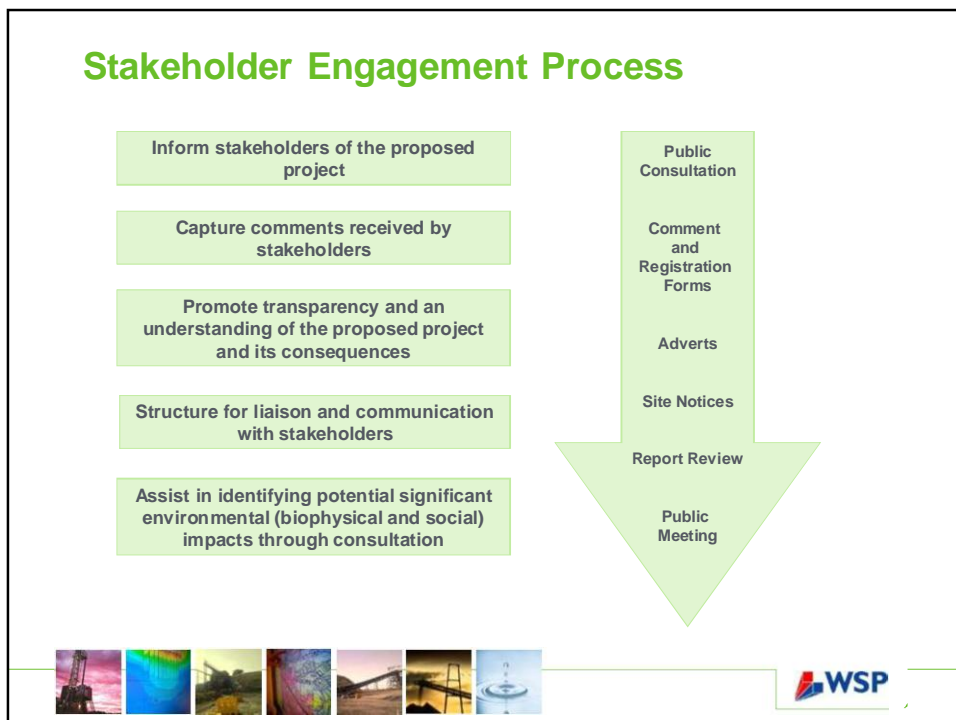
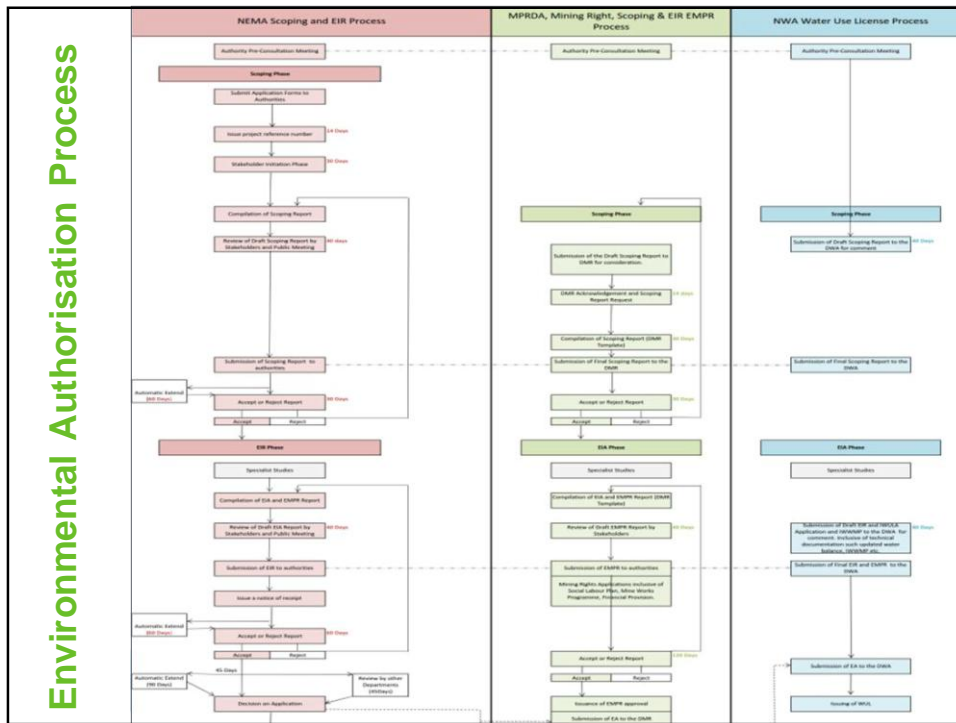
Legal Requirements




Legal Requirements

Relevant Act	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) <ul style="list-style-type: none"> • An environmental authorisation is required prior to the commencement of the Proposed Project • A full S&EIR Process is required • Listed Activities triggered under Government Notice Regulation (GNR) 544 of 2010 (as amended) <ul style="list-style-type: none"> • <i>Activities– 9, 10, 11, 37 and 47</i> • Listed Activities triggered under GNR 545 of 2010 <ul style="list-style-type: none"> • <i>Activities–1, and 20</i> 	Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET)
Minerals and Petroleum Resources Development Act (No. 28 of 2002) <ul style="list-style-type: none"> • A mining right amendment and transfer (including mine works programme and social and labour plan) is required prior to the commencement of the Proposed Project • An EMPR (as prescribed in section 102) must be compiled and approved prior to the commencement of the Proposed Project 	Department of Mineral Resources (DMR)
National Water Act (No. 36 of 1998) <ul style="list-style-type: none"> • A water use license is required prior to the establishment of the Proposed Project • Water uses triggered under Section 21 <ul style="list-style-type: none"> • <i>c, i and j</i> 	Department of Water Affairs (DWA)



Stakeholder Engagement Process

- Stakeholder engagement was conducted in English, Afrikaans and isiZulu, and comprised the following:
 - Publication of newspaper advertisements in :
 - The Echo (DSR Appendix B2)
 - The Ridge (DSR Appendix B2)
 - The Sowetan (DSR Appendix B2)
 - Placement of 15 site notices (5 in each language) in the surrounding project area (DSR Appendix B3)
 - Circulation of background information documents to stakeholders via email, facsimile, registered post and hand delivery (DSR Appendix B4)
 - SMS notification
- Release of DSR for public and authority comment (40 days): 8 August – 12 September 2014 (DSR Appendix B5)
- Public Meeting (21 August 2014).
- Development of a comment and response table.



Stakeholder Engagement Process

Site Notices (B3)



BID Circulation (B4)



Advertisements (B2)



Potential Impacts



Potential Impacts

■ Geology

- Alteration on the rock masses that influence the groundwater and topography.
- Excavation of rock for the box cuts will influence the underlying geology of the site as a void will be created, that will have a steep gradient or stepped highwalls.
- Resultant impacts from blasting and vibrations may impact on geology in the immediate area.
- The extraction of coal and overburden from the open cast pit will result in the permanent altered geological state.

■ Topography*

- Site clearing and topsoil removal may impact local topography.
- Disturbance of topography as a result of the excavation of the box-cut, stockpiling of the resultant overburden/interburden rock and soil stockpiles (separate).



Potential Impacts

Air Quality*

- Generation of dust/particulate matter (PM₁₀) from the construction, operational and closure phases of the mine e.g. land clearing, drilling, blasting, processing, transport of product via road, stockpiling waste rock, overburden, topsoil and product, etc.
 - Dust/ PM₁₀ may impact employees / community health
 - Dust/ PM₁₀ fallout can retard vegetation growth and reduces the palatability of plants to animals
- The health and climate change impacts from the release of:
 - Volatile organic compounds (VOCs) from vehicle exhausts
 - CO₂, noxious gases and smoke from spontaneous combustion.
- Spontaneous combustion may cause safety impacts on the mine employees and could render the surface unusable, therefore impacting on soils, surface water, biodiversity and land use.



Potential Impacts

Soil, Land Use and Land Capability*

- Dilution of fertile organic components in soil with sterile soil and may result in the loss of topsoil.
- Excavation and soil stockpiling may result in the ingress of alien invasive plant species to the area.
- Loss of fertile topsoil through erosion (e.g. stormwater runoff).
- Leachate from overburden or product stockpiles may contaminate soils from infiltration, resulting in surface and groundwater contamination.
- Soil contamination may occur from spillages and leakages of hydrocarbons, contaminated water, plant runoff, etc.
- Contamination of soils from the poor management of mineral and non-mineral wastes generated onsite.
- Potential acid mine drainage / alteration to soil chemical composition could result in acidic and saline soils, making conditions unsuitable for vegetation growth following mine closure.



Potential Impacts

■ Biodiversity*

- Reduced biodiversity and habitat corridors in the immediate areas from the removal of the current flora and fauna species or due to fire.
- Potential poisoning on biodiversity through mismanagement of dangerous goods and any mineral or non-mineral type wastes.
- Mining activities may introduce alien vegetation, which may encroach and impact on the ecosystem.
- Open cast mining activities may impact the groundwater table, impacting wetlands within the immediate area.
- Retardation of flora growth due to dust fall out.

■ Heritage*

- Impact on uncovered sites of archaeological, historic and cultural importance/ significance.
- Unidentified graves may be uncovered during construction and operations which will impact on the culture of the area.



Potential Impacts

■ Hydrology and Geohydrology*

- Impacts on surface water and groundwater recharge, and wetlands, due to modification of infiltration rates from excavation, infill and compaction activities.
- Acid mine drainage / altered chemical composition may increase the acidity of water. The runoff may affect surface water quality, groundwater and biodiversity in the area.
- Potential surface and groundwater contamination from spillages and release of process water, incorrect storage and management of dangerous goods and/ or other contaminants.
- Pumping of groundwater required for safe mining conditions may have a direct impact on the water table.
- Emergency discharge and/ or failure of mining related infrastructure of contaminated process water to the adjacent stream may alter downstream ecosystems and biota status.
- Physical disruptions of aquifers may occur from blasting, e.g. causing groundwater to seep to lower aquifers, which could result in cross contamination of aquifer resources and/ or loss of natural resources.



Potential Impacts

▪ Noise and vibration*

- Noise will be generated from drilling, blasting, mining operations, transportation, processing, machinery etc. which may negatively impact biodiversity and humans alike.
- Vibrations from blasting may impact on the underlying geology of the site.
- Vibrations could cause failure of mine infrastructure which could impact on the health and safety of employees, as well as result in subsidence.

▪ Visual

- The additional mining infrastructure with varying heights will result in a negative impact on the aesthetics of the area.
- The generation of dust and smoke/ emissions from mining operations and vehicle movement may have a visual impact within the surrounding area.



Potential Impacts

▪ Socio*-economic

- Coal supply to SSF will ensure the continued production of fuels for use in the country.
- Job security within the mine and local companies (i.e. direct and indirect) will benefit local communities.
- Training may be provided to employees resulting in an improvement of the local skills base.
- The Social and Labour Plan will be updated, including a number of existing social initiatives as well as the possibly development of new social initiatives.
- Support may be given to the local and national economy by the purchase of goods and services.
- Negative impacts on the health and safety of the surrounding community and future employees from the generation of dust, air emissions (noxious gases and smoke), noise, vibrations, traffic, and contamination of surface and groundwater.
- Surrounding communities may be impacted negatively as a result of reduced aesthetics, or impacts on social pathologies, such as social ills, crime, etc.



Potential Impacts – Specialist Studies

Component	Company	Contact person
Air Quality & Noise	WSP	Patricia Mathabathe
		Nicola Enslin
Hydrology		Greg Matthews
		Andrew Gemmel
Social		Danielle Michel
Blasting and Vibration	Blast Management Consulting	Danie Zeeman
Heritage (archaeology)	Archaetnos CC	Dr Anton van Vollenhoven
Biodiversity and Wetlands	Natural Scientific Services CC	Kathy Taggart
		Susan Abell
Geohydrology	JMA Consulting	Jaco van der Berg
Land Capability and Land Use	Earth Science Solutions	Ian Jones



Way Forward

Activity	Anticipated Timeframe
Public Meeting	21 August 2014
Close of public review period	12 September 2014
Finalisation of the DSR and submission to authorities	Week of 15 September 2014
Authority review	15 September – 15 October 2014*
Commencement of Impact Assessment Phase	October 2014 (on receipt of confirmation from Authority)

**Although this is prescribed by law it may be extended if authorities require additional time to complete their review*



Questions?



Janna Bedford-Owen

Tel. 011 361 1371

Fax: 086 55 66 336

Email: Janna.Bedford-Owen@wspgroup.co.za

Jared O'Brien / Zaffar Hussain

Tel. 011 361 1392/87

Fax: 011 361 1381

Email: Jared.O'Brien@wspgroup.co.za /
Zaffar.Hussain@wspgroup.co.za



Our Reference: 39664
MDEDET reference: 17/2/3N-362

06 August 2014

Dear Stakeholder,

NOTIFICATION OF THE PUBLIC MEETING AND DRAFT SCOPING REPORT PUBLIC REVIEW FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY, MPUMALANGA

WSP Environmental (Pty) Ltd (WSP) has been appointed by Anglo American Coal (AAC): Isibonelo Colliery as the independent environmental assessment practitioner to facilitate the Scoping and Environmental Impact Reporting process (S&EIR) and associated stakeholder engagement process for the proposed Block Z Open Cast Pit (Block Z).

The proposed Block Z is approximately 141ha with a coal capacity of 9 million tons and it proposed to undergo open cast mining by Isibonelo Colliery.

The proposed project involves listed activities contained in the National Environmental Management Act (No. 107 of 1998) (NEMA), with specific reference to Government Notice Regulation (GNR) 544 and 545. In accordance with the NEMA, an S&EIR process must be undertaken for the proposed project. In addition, the proposed Block Z project will require a Water Use License Application (WULA) in accordance with the National Water Act (No. 36 of 1998) (NWA) as well as an Environmental Management Programme Report (EMPR) Amendment process and Mining Rights Amendment according to the Mineral and Resources Development Act (No. 28 of 2002) (MPRDA).

The Draft Scoping Report will be available for public comment for a period of 40 days from **8 August 2014 to 12 September 2014**. WSP will include and respond to all comments received during the public review period prior to finalising and submitting the reports to the competent authorities. The report will be available at the following venues:

- Isibonelo Colliery Reception Office (26° 24' 34.17"S, 29° 12' 16.53"E);
- Bethal Public Library (Danie Nortje road, Bethal);
- Secunda Public Library (Lourens Muller Street, Secunda 2302);
- WSP Website (<http://secol1web01.se.wspgroup.com/en/WSP-Africa/What-we-do/Services/All-Services-A-Z/Technical-Reports/>)

Please note that a Public Meeting has been scheduled during this public review process. The public meeting will be held **from 4 – 6pm on 21 August 2014**. Should you wish to attend the Public Meeting, please submit your details to Zaffar Hussain by **15 August 2014** to receive confirmation of the venue.

Should you have any questions, please do not hesitate to contact the undersigned.

Kind Regards,



Zaffar Hussain
Consultant
Tel: 011 361 1387
Fax: 011 361 1381
Email: Zaffar.Hussain@wspgroup.co.za

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<http://www.wspenvironmental.co.za>
Reg. No: 1995/08790/07

WSP Group plc
Offices worldwide

Public Meeting Minutes Distribution Email

O'Brien, Jared

From: Sibiya, Brenda
Sent: 02 September 2014 12:45 PM
To: O'Brien, Jared
Cc: Bedford-Owen, Janna
Subject: RE: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Attachments: 39664_IC Public_Meeting_Final Minutes_August 2014.pdf

Dear Stakeholder,

ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

The Scoping Phase Public Meeting for the Proposed Mining of the Block Z was held on the 21st of August 2014.

Kindly find attached the meeting minutes for your records.

Please contact the undersigned should you have any questions.

Regards

Jared O'Brien
Environmental Consultant



WSP, Environment & Energy, Africa
WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa
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Mob: +27 84 951 2164
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www.wspgroup.co.za

WSP is one of the world's leading engineering and design consultancies. We provide services to transform the built environment and restore the natural environment. We have 15,000 employees, based in more than 300 offices, across 35 countries, on every continent.

This email and all contents are subject to the following disclaimer: <http://www.wspgroup.com/en/Welcome-to-WSP-Africa/WSP-Africa/Disclaimer>

WSP Environmental (Pty) Ltd, Registered Office: WSP House, Bryanston Place, 199 Bryanston Drive, Bryanston, 2191, South Africa Registered Number: 1999/008928/07 South Africa

O'Brien, Jared

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nratshoshi@anglocoal.co.za; gjholtshauzen@modamail.co.za;
crouss@anglocoal.co.za; jgshcceercoer@telkomsa.net
Sent: 02 September 2014 12:46 PM
Subject: Relayed: RE: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE
PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY
LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

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Public Meeting Minutes Distribution Email

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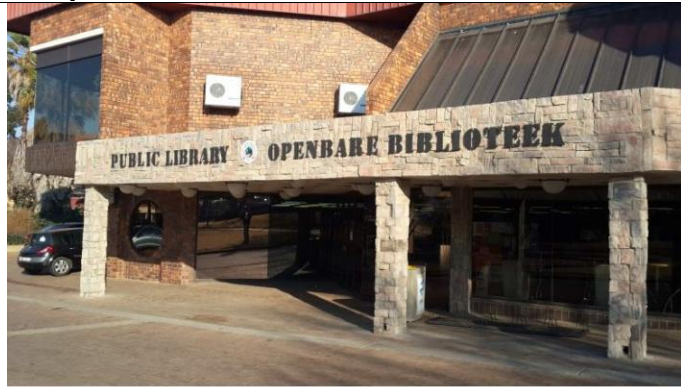
gjholtshauzen@modamail.co.za

crouss@anglocoal.co.za

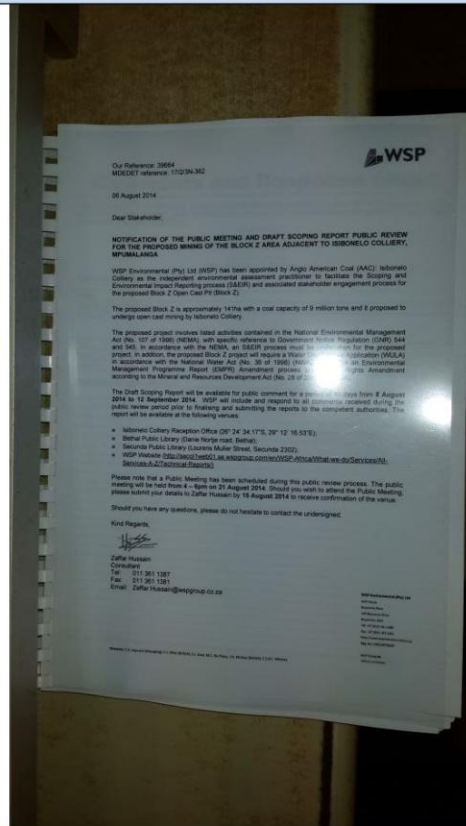
jgshcceercoer@telkomsa.net

Subject: RE: ENVIRONMENTAL AUTHORISATION PROCESSES FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY LOCATED IN GOVAN MBEKI LOCAL MUNICIPALITY, MPUMALANGA

Report Distribution Photo Plate



Secunda Public Library (26° 30' 14.97" S 29° 11' 04.93" E)



Isibonelo Colliery Reception (26° 24' 34.32" S 29° 12' 16.94" E)



Bethal Public Library (26° 27' 21.25" S 29° 27' 38.70" E)



Our Reference: 39664
MDEDET reference: 17/2/3N-362



06 August 2014

Dear Stakeholder,

NOTIFICATION OF THE PUBLIC MEETING AND DRAFT SCOPING REPORT PUBLIC REVIEW FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY, MPUMALANGA

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Kind Regards,

Zaffar Hussain
Consultant
Tel: 011 361 1387
Fax: 011 361 1381
Email: Zaffar.Hussain@wspgroup.co.za

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Reg. No. 1995/04790/07

Lorraine Maselko
12HOZ Maselko 08/08/2014

Directors: C.A. Haycock (Managing), C.J. Allen (British), S.I. Dool, M.C. Du Plooy, J.H. McKay (British), E.S.R.F. Mkhwa

eMalahleni Local Municipality (25° 52' 26.78" S 29° 12' 50.28" E)



MDEDET Reference: 17/2/3N-362

07 August 2014



Fhatuwani Muronga / Bethuel Matodzi
Mpumalanga Department of Mineral Resources,
Cnr Botha and Paul Kruger Str,
Emalahleni,
1035.



Dear Sirs,

This letter serves to acknowledge that _____ (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the _____ (date).

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
Consultant
Tel: 011 361 1396
Fax: 086 505 3939
Email: Jared.O'Brien@wspgroup.co.za

Department of Mineral Resources (25° 52' 32.85" S 29° 12' 51.36" E)



MDEDET Reference: 17/2/3N-362



07 August 2014

Selape Lentswana
 Mpumalanga Department of Economic Development, Environment and Tourism (DEDET) –
 Nkangala District office
 Pavilion Centre,
 Cnr Botha & Northey Streets,
 Witbank
 1035.

Dear Mr Lentswana,

This letter serves to acknowledge that EVENO MOKGANYI (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the 02-AUGUST-2014 (date).

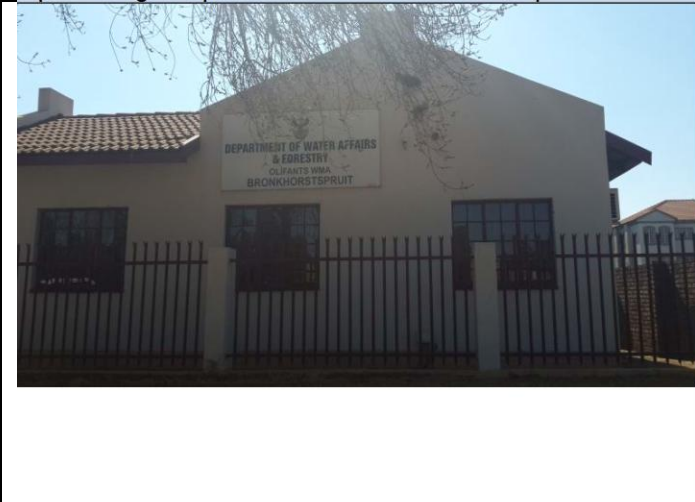
Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
 Consultant
 Tel: 011 361 1396
 Fax: 086 505 3939
 Email: Jared.O'Brien@wspgroup.co.za



Mpumalanga Department of Economic Development Environment and Tourism (25° 54' 00.64" S 29° 14' 14.53" E)



MDEDET Reference: 17/2/3N-362



07 August 2014

Pinky Monyela
 No 22 Rooth Street
 Erasmus
 Bronkhorstspuit
 1020.

Dear Ms Monyela,

This letter serves to acknowledge that M L NDOBE (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the 08 AUGUST 2014 (date).

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
 Consultant
 Tel: 011 361 1396
 Fax: 086 505 3939
 Email: Jared.O'Brien@wspgroup.co.za



Department of Water and Sanitation (25° 48' 41.59" S 28° 44' 39.36" E)

MDEDET Reference: 17/2/3N-362

07 August 2014

Pinky Monyela
No 22 Rooth Street
Erasmus
Bronkhorspruit
1020.

Dear Ms Monyela,

This letter serves to acknowledge that M.L. NDOBE (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the 08 AUGUST 2014 (date).

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
Consultant

Tel: 011 361 1396

Fax: 086 505 3939

Email: Jared.O'Brien@wspgroup.co.za



WSP Environmental
WSP House, Bryanston Place Office
Park
199 Bryanston Drive
Bryanston
Johannesburg
2157
Tel: +27(0) 11 361 1380
Fax: +27(0) 11 361 1381
<http://www.wspgroup.co.za>
Reg. No: 1995/08790/07

WSP Group plc
Offices worldwide

06 August 2014

Dear Stakeholder,

NOTIFICATION OF THE PUBLIC MEETING AND DRAFT SCOPING REPORT PUBLIC REVIEW FOR THE PROPOSED MINING OF THE BLOCK Z AREA ADJACENT TO ISIBONELO COLLIERY, MPUMALANGA

WSP Environmental (Pty) Ltd (WSP) has been appointed by Anglo American Coal (AAC): Isibonelo Colliery as the independent environmental assessment practitioner to facilitate the Scoping and Environmental Impact Reporting process (S&EIR) and associated stakeholder engagement process for the proposed Block Z Open Cast Pit (Block Z).

The proposed Block Z is approximately 141ha with a coal capacity of 9 million tons and it proposed to undergo open cast mining by Isibonelo Colliery.

The proposed project involves listed activities contained in the National Environmental Management Act (No. 107 of 1998) (NEMA), with specific reference to Government Notice Regulation (GNR) 544 and 545. In accordance with the NEMA, an S&EIR process must be undertaken for the proposed project. In addition, the proposed Block Z project will require a Water Use License Application (WULA) in accordance with the National Water Act (No. 36 of 1998) (NWA) as well as an Environmental Management Programme Report (EMPR) Amendment process and Mining Rights Amendment according to the Mineral and Resources Development Act (No. 28 of 2002) (MPRDA).

The Draft Scoping Report will be available for public comment for a period of 40 days from **8 August 2014 to 12 September 2014**. WSP will include and respond to all comments received during the public review period prior to finalising and submitting the reports to the competent authorities. The report will be available at the following venues:

- Isibonelo Colliery Reception Office (26° 24' 34.17"S, 29° 12' 16.53"E);
- Bethal Public Library (Danie Nortje road, Bethal);
- Secunda Public Library (Lourens Muller Street, Secunda 2302);
- WSP Website (<http://secol1web01.se.wspgroup.com/en/WSP-Africa/What-we-do/Services/All-Services-A-Z/Technical-Reports/>)

Please note that a Public Meeting has been scheduled during this public review process. The public meeting will be held **from 4 – 6pm on 21 August 2014**. Should you wish to attend the Public Meeting, please submit your details to Zaffar Hussain by **15 August 2014** to receive confirmation of the venue.

Should you have any questions, please do not hesitate to contact the undersigned.

Kind Regards,



Zaffar Hussain
Consultant
Tel: 011 361 1387
Fax: 011 361 1381
Email: Zaffar.Hussain@wspgroup.co.za

WSP Environmental (Pty) Ltd
WSP House
Bryanston Place
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Bryanston, 2021
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Reg. No: 1995/08750/07

WSP Group plc
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Lorraine Maselco
12402 Maselco 08/08/2014

MDEDET Reference: 17/2/3N-362



07 August 2014

Fhatuwani Muronga / Bethuel Matodzi
Mpumalanga Department of Mineral Resources,
Cnr Botha and Paul Kruger Str,
Emalahleni,
1035.



Dear Sirs,

This letter serves to acknowledge that _____ (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the _____ (date).

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
Consultant

Tel: 011 361 1396

Fax: 086 505 3939

Email: Jared.O'Brien@wspgroup.co.za

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WSP Group plc
Offices worldwide

07 August 2014

Selape Lentswana
Mpumalanga Department of Economic Development, Environment and Tourism (DEDET) –
Nkangala District office
Pavilion Centre,
Cnr Botha & Northey Streets,
Witbank
1035.

Dear Mr Lentswana,

This letter serves to acknowledge that EVEIHO MOKWENI (name in print) has received one colour hard copy for the Isibonelo Colliery Block Z Open Cast Pit Project on the 08 - August - 2014. (date).

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Jared O'Brien
Consultant

Tel: 011 361 1396

Fax: 086 505 3939

Email: Jared.O'Brien@wspgroup.co.za



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