

NOTICE: INTERESTED AND AFFECTED PARTIES;
GOEDEHOOP COLLIERY;
A DIVISION OF ANGLO OPERATIONS LIMITED;
NEMA SCOPING PHASE



Real Mining, Real people, Real Difference

To: South African Heritage Resources Agency **From:** Riana Bate

Fax: _____ **Pages:** 1

Phone: 021 462 4502 **Date:** 2013/06/05

Re: Anglo Operations Limited: Goedehoop Colliery- Application for Listed Activities in terms of the National Environmental Management Act (Act no. 107 of 1998)

Attention: Ms. Jenna Lavin

Anglo Operations Limited (Reg. No.: 1921/006730/06) has applied for the authorisation of listed activities in terms of sections 24 and 24D of the National Environmental Management Act (Act no. 107 of 1998) read together with Government Notice No. R544, R545 and R546. Anglo Operations Limited is also applying for an Integrated Water Use Licence (IWUL) for the proposed water uses in terms of section 40 of the National Water Act (NWA), 1998 (Act 36 of 1998). The above mentioned applications comprise the expansion of the existing Goedehoop Colliery Discard dump (Phase 2) as well as the construction of the Discard Retreat Plant and the Elders Retreat Plant together with their water management facilities. Both plants are heavy medium density cyclone coal washing plants consisting of a crush and screen section and a water reclaiming section (thickener). A briquetting plant will also be constructed for the coal slimes from the Goedehoop Colliery Discard dump slimes dams. Associated infrastructure will include a conveyor belt which will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery's existing Plant area. Roads will be constructed and widened to access the above mentioned project areas. An existing railway line within the Goedehoop Colliery mining area will be expanded.

These activities will occur on certain portions of the following farms: **Portion 12, 16, 17, 18 and the remaining extent of the Koornfontein 27 IS, Portion 9 of the farm Goedehoop 46 IS and Portion 1, 4 and 8 of the farm Kleinfontein 49 IS, Nkangala district, Mpumalanga.** The application was accepted by the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET), with the following reference number: **17/2/3N-238.**

Geovicon Environmental (Pty) Ltd has been appointed as an independent environmental consultant to compile the Draft Scoping Report in terms of section 28 of the Environmental Impact Assessment Regulations published in Government Notice No. R543. Jones & Wagener (Pty) Ltd has been appointed as an independent consultant to compile the Integrated Water Use Licence Application (IWULA in terms of section 40 of the National Water Act, 1998 (Act 36 of 1998). As part of the Public Participation Process, contemplated in Chapter 6 of the Environmental Impact Assessment Regulations, published in Government Notice No. R543, any organ of state having jurisdiction in respect of any aspect of the activity should be consulted with.

The Draft Scoping Report is hereby submitted to you for your perusal. Comments regarding the proposed activities must be submitted in writing, under reference number 17/2/3N-238, on or before 4 July 2013 on the attached comment sheet within the scoping report to:

Consultant:
GEOVICON Environmental (Pty) Ltd
P. O. Box 4050
Middelburg
1050

Tel.: 013 243 0542
Fax.: 086 632 4936
Cell.: 082 359 5604
E-mail: geovicon@iafrica.com
Contact person: Riana Bate

KINDLY SIGN AND FAX BACK TO THE NUMBER ABOVE AS CONFIRMATION OF RECEIPT OF THE DOCUMENT.

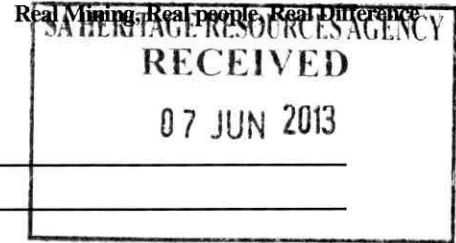
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Postal address:.....

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Consultant:	Tel.: 013 243 0542
GEOVICON Environmental (Pty) Ltd	Fax.: 086 632 4936
P. O. Box 4050	Cell.: 082 359 5604
Middelburg	E-mail: geovicon@iafrica.com
1050	Contact person: Riana Bate

KINDLY SIGN AND FAX BACK TO THE NUMBER ABOVE AS CONFIRMATION OF RECEIPT OF THE DOCUMENT.

Receipt of above-mentioned notice is hereby acknowledged.

Received by:.....Signature:.....

Contact number:.....E-mail address:.....

Postal address:.....

Executive Summary

Anglo Coal, a division of Anglo Operations Limited (AOL), owns and operates Goedehoop Colliery located approximately 25 km southeast of Witbank in the Nkangala Municipal District of Mpumalanga Province (See Figure 1). This document concerns the proposed expansion of the southern Discard Dump (Phase 2), construction of two retreat plants namely the Discard retreat plant and the Elders Retreat Plant as well as the construction of a Briquetting Plant project. The proposed expansion will occur on the central portion of the Hope Section of Goedehoop Colliery. This project will be addressed as the proposed Goedehoop Colliery discard dump expansion and plants project throughout the document.

Goedehoop Colliery was issued with old order mining right ML 32/1994 on the 28th November 1994 (DME reference OT 1/94), and the EMPR approved on 26 September 2003 (DME reference OT 6/2/2/127). AOL applied for conversion of the old order mining right on 28 October 2004. The mining right was granted on the 12th May 2008.

This document concerns changes at Goedehoop Colliery's mining area, i.e. expansion of the existing Goedehoop Colliery Discard dump (Phase 2) as well as the construction of the Discard Retreat Plant and the Elders Retreat Plant together with their water management facilities. Both plants are heavy medium density cyclone coal washing plants consisting of a crush and screen section and a water reclaiming section (thickener). A briquetting plant will also be constructed for the coal slimes from the Goedehoop Colliery Discard dump slimes dams. Associated infrastructure will include a conveyor belt which will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery's existing Plant area. Roads will be constructed and widened to access the above mentioned project areas. An existing railway line within the Goedehoop Colliery mining right area will be expanded.

The discard dump expansion will be conducted on portion 17 and the remaining extent of the farm Koorfontein 27 IS. The Discard Retreat Plant, Elders Retreat Plant and Briquetting Plant will be conducted on portion 18 of the farm Koorfontein 27 IS. The conveyor belt which will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery existing Plant area will be conducted on portion 12 of the farm Koorfontein 27 IS, portion 9 of the farm Goedehoop 46 IS, and portion 1, 4 and 8 of the farm Kleinfontein 49 IS. The roads will be constructed and widened to access the above mentioned project areas on portions 18 and the remaining extent of the farm Koorfontein 27 IS. The existing railway line within the Goedehoop Colliery mining right area will be expanded on portion 16 of the farm Koorfontein 27 IS.

The National Environmental Management Act, 1998 (Act 107 of 1998) requires that any person or entity that intends to undertake activities listed in government notices GN 544, GN 545 and GN 546 must obtain an environmental authorisation in terms of section 24D of the National Environmental Management Act before undertaking such activities. On evaluation of the proposed Discard dump Expansion, Discard Retreat Plant, Elders Retreat Plant and Briquetting Plant Project, the following listed activities were identified i.e. GN 544: Activity 11: The construction of infrastructure and structures (Dump expansion and Conveyor belt) covering 50 square metres or more where such

construction occurs within a tributaries of the Olifants River and within 32 metres of a tributary of the Koringspruit.

Activity 18: The dredging, excavation, removal and moving of soil, sand, and rock from a tributary of the Koringspruit in order to expand the stream crossing, as well as from the wetland for the construction of the Conveyor belts. Activity 22: The construction of access roads at the Retreat Plant, Briquetting Plant and Discard dump Expansion, outside an urban, where no reserve exists where the road is wider than 8 metres. Activity 26: Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004). Activity 28: The expansion of the existing Discard dump facility which will result in the need for a water use license in terms of the National Water Act governing the release of mine affected water into a proper facility. Activity 39: The expansion of a bridge; within a tributary of the Koringspruit which will be used to transport material from the Discard Dump to the Briquetting Plant. Activity 47: The widening of roads between the Briquetting Plant and Discard Dump Facility as well as at the Briquetting Plant itself by more than 6 metres, where no reserve exists, where the existing road is wider than 8 metres. Activity 53: The expansion of railway line where there will be an increased development footprint.

GN 545: Activity 5: The construction of a Briquetting Plant, which requires an emissions license in terms of National Environmental Management Air Quality Act governing the generation of emissions. Activity 6: The construction of facilities or infrastructure for the bulk transportation of dangerous goods in solid form (coal), outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons day. Activity 15: The physical alteration of undeveloped land for industrial use (Retreat Plant, Briquetting Plant and South Discard Dump Expansion and associated infrastructure) where the total area to be transformed is more than 20 hectares.

GN 546: Activity 4: The construction of a road wider than 4 metres with a reserve less than 13, 5 metres. Activity 16: The construction of conveyor belts and the dump expansion covering 10 square metres or more where such construction occurs within a watercourse and within 32 metres of a watercourse, measured from the edge of a watercourse. . Activity 19: The widening of a road by more than 4 metres.

Based on the above, an application for an environmental authorisation for the above listed activities was undertaken with the Department of Economic Development, Environment and Tourism (eMalahleni Regional Office). The application has been accepted and the Draft Scoping Report (this document) is thereby being submitted.

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Appendix 1 Infrastructure Layout Plans

SECTION ONE

Introduction

1. INTRODUCTION

1.1 WHO IS DEVELOPING THE SCOPING REPORT?

SCOPING Report Compilation : Geovicon Environmental (Pty) Limited
P.O. Box 4050
MIDDELBURG, 1050
Tel: (013) 243 0542
Fax: (086) 632 4936
Contact: Mr. O.T. Shakwane

Geovicon Environmental (Pty) Limited is a geological and environmental consulting company. The company was formed in 1996, and currently has seventeen years experience in the geological and environmental consulting field. During the past seventeen years, Geovicon Environmental (Pty) Limited has successfully completed consulting projects in the Mining sector (coal, gold, base metal and diamond), Quarrying sector (sand, aggregate and dimension stone), Industrial sector and housing sector. Geovicon Environmental (Pty) Limited has undertaken contracts within all the provinces of South Africa, Swaziland, Botswana and Zambia. During 2001 Geovicon Environmental (Pty) Limited entered the field of mine environmental management and water monitoring.

Geovicon Environmental (Pty) Limited is a Black Economically Empowered Company with the BEE component owning 60% of the company. Geovicon Environmental (Pty) Limited has three shareholders i.e. O.T. Shakwane, J.M Bate and T.G. Tefu.

Mr. O.T Shakwane obtained his BSc (Microbiology and Biochemistry) from the University of Durban Westville in 1994, and completed his honours degree in Microbiology in 1995.

Mr. T.G. Tefu is a geologist. He obtained his BSc. in geology at the University of Witwatersrand. He worked with several mining companies and was also employed by the Department of Mineral Resources' Environmental Management directorate.

Mr. Bate, founder of Geovicon Environmental (Pty) Limited, is used by the company on an ad hoc (consultancy) basis. He is also a qualified geologist. He obtained his BSc (geology) from the Potchefstroom University for CHE in 1993, and completed his honours degree (cum Laude) in geology in 1994. He obtained his MSc (cum Laude) in 1995.

Over the past years Geovicon Environmental (Pty) Limited has formalised working relationships with companies that offer expertise in the following fields i.e. Geohydrology, Civil and Geotechnical Engineering, Geotechnical Consultancy, Survey and Mine Planning and Soil & Land Use Consultancy.

1.2 WHO WILL EVALUATE THE SCOPING REPORT?

Before the proposed listed activities applied for can proceed, the environmental impacts that may result from the proposed project must be assessed.

In the spirit of co-operative governance, other commenting authorities will be consulted with. These include:

Department of Water Affairs (Mpumalanga Regional Office)

Department of Mineral Resources (Mpumalanga Regional Office)

Department of Agriculture

Mpumalanga Tourism and Parks Agency

South African Heritage Resources Agency (SAHRA)

1.3 LEGAL REQUIREMENTS

The National Environmental Management Act, 107 of 1998 (NEMA) requires that a Scoping Report be conducted and that the Environmental Impact Assessment (EIA) be carried out for activities listed activities applied for under the Environmental Impact Assessment Regulations 2010

In addition to the NEMA, the following key legislation is also relevant to the EIA/EMP Report:

Minerals and Petroleum Resources Development Act (MPRDA), No 28 of 2002

Minerals and Petroleum Resources Development Act (MPRDA), No 28 of 2002

Environment Conservation Act (ECA), No 73 of 1989

The National Environmental Management Act (NEMA), No 107 of 1998

The Mine Health and Safety Act (MHSA), No 29 of 1996, as amended

The National Water Act (NWA), No 36 of 1998, as amended

National Environmental Management Biodiversity Act (NEMBA), No 10 of 2004

Air Quality Act (AQA), No 39 of 2004.

The Draft Scoping Report (this report) will be finalised based on the comments received from interested and affected parties.

1.4 PURPOSE OF THE SCOPING REPORT

The draft Scoping report addresses the requirements as contemplated in the Environmental Impact Assessment Regulations, 2010. This report also documents the issues and concerns raised during the consultation phase (if any), and includes the findings of the specialist assessments for issues that have been raised.

The aim of this Scoping Report is to:

Provide information on the proposed project and present the findings of the Scoping to the authorities

Provide information regarding alternatives that have been considered

Show how authorities and interested and affected parties were afforded the opportunity to contribute to the project, and to indicate the issues raised and the responses to those issues

Describe the baseline receiving environment

Describe the extent of environmental consequences for the construction and operating phases of the proposed project

Propose mitigation measures for impacts that are considered significant

Describe the environmental feasibility of the proposed project

Present findings in a manner that facilitates decision-making by the relevant authorities

SECTION TWO

Project Background & Context

2. PROJECT BACKGROUND AND CONTEXT

2.1 OVERVIEW OF THE PROJECT

2.1.1 Name of the Applicant

Anglo Operations (Pty) Ltd

2.1.2 Name of the Proposed Project

Goedehoop Colliery’s Discard dump Expansion, Discard Retreat Plant, Elders Retreat Plant and Briquetting Plant Project (proposed Goedehoop Colliery discard dump expansion and plants project)

2.1.3 Address of proposed Project

Discard dump expansion and Plants project
Portion 12 of the farm Koorfontein 27 IS
MIDDELBURG

2.1.4 Project Manager

Mr. Xabiso Mangxola

2.1.5 Contact Person

Mr. Xabiso Mangxola
Anglo Operations (Pty) Ltd, Goedehoop Colliery
Private Bag X410, Van Dyksdrift, 2245
Cell: 073 217 1595

2.2 LOCATION

Refer to Figure 1 for the regional setting of the proposed Goedehoop Colliery discard dump expansion and plants project. The proposed Goedehoop Colliery discard dump expansion and plants project is situated on certain portions of the farms: Koorfontein 27 IS, Goedehoop 46 IS and Klefontein 49 IS, which falls within Goedehoop Colliery’s mining right area.

2.2.1 Magisterial District & Regional Services Council

Middelburg, Mpumalanga

District Municipality: Nkangala District Municipality

Local Municipality: Steve Tshwete Local Municipality

2.2.2 Direction and Distance to Nearest Towns

Table 1: Direction and Distance to Nearest Towns.

Town	Direction	Distance (km)
Middelburg	Northeast	52 km
Witbank	Northwest	25 km
Bethal	South	40 km
Kriel	Southwest	35 km

2.2.3 Surface Infrastructure

All mining related activities, actions and processes, which include roads, bridges, railway lines, power lines, pipelines, buildings, conveyor lines, shafts, silos, disposal facilities, fuel storage facilities, dams and streams are present within areas applied for.

2.2.4 Presence of Servitudes

A number of servitudes such as power lines, overland conveyor belts, railway lines as well as the R542 (secondary road) is present within and around the project area.

2.2.5 Name of River Catchments

Goedehoop Colliery mining right area falls within the Upper Olifants River catchments. Goedehoop Colliery mining right area falls within the B11 and B12 tertiary drainage regions of the Olifants River catchment. Within these tertiary regions the mine falls within the B11B quaternary drainage regions.

The coal mining right area of Goedehoop Colliery in relation to the major catchments and the natural surface streams are shown on Figure 2. Goedehoop Colliery falls within the Witbank Dam catchment area (B100) (refer Figure 3). The proposed expansion area occurs within the Olifants River catchment and the Goedehoopspruit subcatchment. (Refer Figure 2). For the purpose of water quality management, the Department of Water Affairs and Forestry delineated nine water quality management units within the Witbank Dam catchment area¹ (Figure 3). The Goedehoop Colliery mining right falls within the Koringspruit management unit (MU3), the Boesmankransspruit management unit (MU4), and the Olifants River management unit (MU8). The proposed Discard dump expansion and retreat plant area falls within the Koringspruit management unit (MU3) and the Olifants River management unit (MU8).

Long term water quality monitoring is undertaken within the Olifants River. This monitoring indicates that the streams are impacted on by mining operations and agricultural practises within the area.

¹ Department of Water Affairs & Forestry – Directorate Water Quality Management; Technical Support Document for Witbank Dam Water Quality Management Plan - Report No. WQ B100/000/01/93, September 1993.

2.3 NAME AND ADDRESS OF LAND OWNER & FARM DESCRIPTION

Table 2 indicate the surface owners on the proposed Goedeheop Colliery discard dump expansion and plants project areas.

Table 2: Description of immediate and adjacent landowners and their property

FARM	PORTION	SURFACE RIGHT OWNERS
Koornfontein 27 IS	Remaining extent*	Anglo Operations Limited
Koornfontein 27 IS	Portion 18*	Anglo Operations Limited
Koornfontein 27 IS	Portion 16*	Anglo Operations Limited
Koornfontein 27 IS	Portion 17*	Anglo Operations Limited
Koornfontein 27 IS	Portion 12*	Anglo Operations Limited
Koornfontein 27 IS	Portion 3	Koornfontein Mines
Koornfontein 27 IS	Portion 10	Koornfontein Mines
Koornfontein 27 IS	Portion 22	Koornfontein Mines
Koornfontein 27 IS	Portion 12	Anglo Operations Limited
Koornfontein 27 IS	Portion 20	G & M Farming Enterprises
Koornfontein 27 IS	Portion 26	Nederduitsch Hervormde Kerk van Afrika- Koornfontein
Koornfontein 27 IS	Portion 31	Transnet
Koornfontein 27 IS	Portion 34	Rudolph Schoeman Landgoed cc
Goedeheop 46 IS	Portion 9*	Anglo Operations Limited
Goedeheop 46 IS	Portion 1	Dorothy Maria Erasmus
Goedeheop 46 IS	Portion 5	Anglo Operations Limited
Goedeheop 46 IS	Portion 6	Jaco Harmse Trust
Goedeheop 46 IS	Portion 7	J J J Harmse Trust
Kleinfontein 49 IS	Portion 1*	Anglo Operations Limited
Kleinfontein 49 IS	Portion 4*	Anglo Operations Limited
Kleinfontein 49 IS	Portion 8*	Anglo Operations Limited
Kleinfontein 49 IS	Remaining extent	Umcebo Properties (Pty) Ltd
Kleinfontein 49 IS	Portion 2	Umcebo Properties (Pty) Ltd
Kleinfontein 49 IS	Portion 7	Umcebo Properties (Pty) Ltd
Kleinfontein 49 IS	Portion 10	Anglo Operations Limited
Kleinfontein 49 IS	Portion 12	Kaninvest 3159 cc
Vlaklaagte 45 IS	Portion 2	BHP Billiton Energy Coal South Africa Ltd
Haasfontein 28 IS	Portion 2	Anglo Operations Limited
Haasfontein 28 IS	Portion 3	Anglo Operations Limited

* Indicate farm portions on which the proposed Goedeheop Colliery discard dump expansion and plants project and associated infrastructure will be undertaken.

Table 3: Details of Immediate and Adjacent Landowners

SURFACE RIGHT OWNERS	Contact Person	Contact number
Anglo Operations Limited	Mine Manager: Eric Becht	013 687 5300
Koornfontein Mines	Ernest Ferreira	013 295 5364

G & M Farming Enterprises	Michael Allen	082 388 3200
Nederduitsch Hervormde Kerk van Afrika- Koornfontein	Ds. J.J. Viljoen	013 295 3012
Transnet	Philip de Klerk	012 315 2021
Rudolph Schoeman Landgoed cc	Rudolph Schoeman	082 388 3105
Dorothy Maria Erasmus	Dorothy Maria Erasmus	082 372 8126
Jaco Harmse Trust	Jaco Harmse	082 388 3077
J J J Harmse Trust	Jaco Harmse	082 388 3077
Umcebo Properties (Pty) Ltd	Hugo Grobler	082 332 0604
Kanivest 3159 cc	Jaco van Dyk	082 388 2094
BHP Billiton Energy Coal South Africa Ltd	Vikesh Dhanooklal	011 376 2065

2.4 BRIEF PROPOSED PROJECT OVERVIEW

Anglo Operations Limited intends to expand the existing Goedehoop Colliery Discard dump (Phase 2) as well as construct two Retreat plant namely the Discard Retreat Plant and Elders Retreat Plant together with their water management facilities. Both plants are heavy medium density cyclone coal washing plants consisting of a crush and screen section and a water reclaiming section (thickener). A briquetting plant will also be constructed for the coal slimes from the Goedehoop Colliery Discard dump slimes dams. Associated infrastructure will include a conveyor belt which will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery's existing Plant area. Roads will be constructed and widened to access the above mentioned project areas. An existing railway line within the Goedehoop Colliery mining area will be expanded.. In terms of sections 24 and 24D of the National Environmental Management Act (Act no. 107 of 1998) read together with Government Notice 544, 545 and 546, Anglo Operations Limited will require an environmental authorisation before commencement of the above-mentioned activities. Hence the following listed activities will be applied for:

2.4.1 NEMA Listed Activities in terms of Government Notice R544 – Listing Notice 1 of 2010

Activity 11: The construction of infrastructure and structures (Dump expansion and Conveyor belt) covering 50 square metres or more where such construction occurs within a tributaries of the Olifants River and within 32 metres of a tributary of the Koringspruit.

The expansion of the Discard dump will result in it associated infrastructure such as the Silt trap drying bed to be constructed within 32 metres of a tributary of the Koringspruit which is situated on a portion of the remaining extent of the farm Koornfontein 27 IS. The Conveyor belt which will be constructed will fall on portions 1, 4, 8 of the farm Kleinfontein 49 IS and portion 9 of the farm Goedehoop 46 IS which all fall within Goedehoop Colliery's mining right area. The conveyor belt will cross tributaries of the Olifants River which fall on portions 4 and 8 of the farm Kleinfontein 49 IS.

Activity18: The dredging, excavation, removal and moving of soil, sand, and rock from a tributary of the Koringspruit in order to expand the stream crossing, as well as from the wetland for the construction of the Conveyor belts.

An existing stream crossing which crosses a tributary of the Koringspruit (locally known as the Goedehoopspruit) will be expanded to cater for heavy moving vehicles which will result in the dredging, excavation, removal and moving of soil, sand, and rock from a tributary of the Koringspruit. The construction of the conveyor belt over the tributaries of the Olifants River will result dredging, excavation, removal and moving of soil, sand, and rock from the tributaries.

Activity 22: The construction of access roads at the Retreat Plant, Briquetting Plant and Discard dump Expansion, outside an urban, where no reserve exists where the road is wider than 8 metres.

An access road will be constructed to access the Discard dump expansion which fall on a portion of the remaining extent of the farm Koornfontein 27 IS and an access road will be constructed to access the proposed Discard Retreat Plant and Elders Retreat Plant which occurs on portion 18 of the farm Koornfontein 27 IS.

Activity 26: Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004).

According to South African National Biodiversity Institute, certain areas of the proposed Goedeheop Colliery discard dump expansion and plants project falls within a threatened ecosystem (vulnerable). It should be noted that the area is already disturbed by the existing Goedeheop Colliery and its existing Plant area which fall within Goedeheop Colliery's mining right area.

Activity 28: The expansion of the existing Discard dump facility which will result in the need for a water use license in terms of the National Water Act governing the release of mine affected water into a proper facility.

Activity 39: The expansion of a bridge; within a tributary of the Koringspruit which will be used to transport material from the Discard Dump to the Briquetting Plant.

An existing stream crossing which crosses a tributary of the Koringspruit (locally known as the Goedehoopspruit) will be expanded to cater for heavy moving vehicles which will result in the expansion of the stream crossing.

Activity 47: The widening of roads between the Briquetting Plant and Discard Dump Facility as well as at the Briquetting Plant itself by more than 6 metres, where no reserve exists, where the existing road is wider than 8 metres.

An existing access road which runs from the R542 to the Goedeheop Colliery's Discard dump will be expanded to cater for heavy moving vehicles to and from the proposed Briquetting Plant. An existing road adjacent to the proposed briquetting plant will also be widened to cater for heavy moving vehicles to access the proposed Briquetting plant.

Activity 53: The expansion of railway line where there will be an increased development footprint.

An existing railway line belonging to Goedeheop Colliery will be expanded in order to connect to the existing Transnet Freight rail network in order to allow for the transport of treated discard coal to Eskom's Majuba Power station.

2.4.1 NEMA Listed Activities in terms of Government Notice R545 – Listing Notice 2 of 2010

Activity 5: The construction of a Briquetting Plant, which requires an emissions license in terms of National Environmental Management Air Quality Act governing the generation of emissions.

The briquetting plant will result in the drying of mineral solids (ultrafine coal) which will ultimately be moulded into briquettes. These processes trigger the listed activities in terms of Section 21 of National Environmental Management Air Quality Act, Act 39 of 2004. Therefore an emissions license has to be applied for.

Activity 6: The construction of facilities or infrastructure for the bulk transportation of dangerous goods in solid form (coal), outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons day.

Coal will be transported from one of Anglo Operations Ltd Mining Project (Elders Project) to Goedehoop Colliery's existing plant for further processing. The proposed conveyor belt to be constructed will result in the transport of more than 50 tons of coal per day.

Activity 15: The physical alteration of undeveloped land for industrial use (Retreat Plant, Briquetting Plant and South Discard Dump Expansion and associated infrastructure) where the total area to be transformed is more than 20 hectares.

2.4.2 NEMA Listed Activities in terms of Government Notice R546 – Listing Notice 3 of 2010

Activity 4: The construction of a road wider than 4 metres with a reserve less than 13, 5 metres.

The construction of an access road wider than 4 metres to the proposed discard dump expansion area triggers Listing Notice 3 of 2010.

Activity 16: The construction of a conveyor belt and the dump expansion associated infrastructure such as the silt trap drying bed covering 10 square metres or more where such construction will occur within tributaries of the Olifants River and within 32 metres of a tributary of the Koringspruit.

Activity 19: The widening of a road by more than 4 metres.

The stream crossing and associated road will be widened by more than 4 metres to cater for heavy moving vehicles.

2.5 A DESCRIPTION OF ANY FEASIBLE AND REASONABLE ALTERNATIVES THAT HAVE BEEN IDENTIFIED

No feasible and reasonable location alternatives have been identified, as the only feasible location for the proposed Goedehoop Colliery discard dump expansion and plants project and associated infrastructure is on Goedehoop Colliery's mining right area.

In terms of the transportation of coal from one of Anglo Operations Limited mining projects (Elders project) to Goedeheop Colliery's existing plant for further processing, the conveyor belt will be constructed to transport the coal. Although during the initial stages of the mining project, coal will be transported via truck, and as production increases the conveyor belt system will be used as trucking will become more costly and pose a safety risk.

In terms of the Railway line expansion two feasible options have been identified. Option one will provide a line that will link the existing arrivals line with Goedeheop Colliery's private siding. This will entail the construction of approximately 1km of railway line. Option two entails re-instating a portion of the rail infrastructure of a private siding, which was previously uplifted. This will entail the construction of approximately 3km of railway line.

All other activities applied for namely the Discard dump expansion, Retreat Plants and Briquetting Plant have no other feasible or reasonable alternatives. The most feasible location for the Discard dump expansion would be adjacent to the dump, within the mining right area, as oppose to impacting upon a new location. The most feasible location for the Retreat plants would be at Goedeheop Colliery's existing plant, withing the existing mining right area as it connects to existing plant infrastructure. In terms of the Briquetting plant, the ultra fine material that will supply the briquetting plant will be obtained from the existing Goedeheop Colliery discard dump. The closer the briquetting plant to the discard dump the more the efficient the operation will run, the reason for the chosen location. See Appendix 1 for Infrastructure Layout Plans.

SECTION THREE

Baseline Information

3. BASELINE INFORMATION

3.1.1 Geology

3.1.1.1 Regional Geology

Goedehoop Colliery mining area is situated in the central block of Witbank Coalfield. The sequence typically comprises sediments of the Dwyka Group and the Vryheid Formation of the Ecca Group which rest unconformably on an uneven floor of basement rocks comprised of gabbro diabase and felsites of the Bushveld Igneous Complex. The generally flat lying Vryheid Formation sedimentary succession consists of No. 1 coal seam, grit, No. 2 coal seam, shale, siltstones and sandstones. Although the No. 1 coal seam is also present, only No. 2 coal seam will be exploited within the areas under consideration. Dolerite intrusions are typical within the Goedehoop Colliery geological area and occur at an average of 300 to 500 meters apart. The Dolerite dykes are typically between 0,5 and 3,0 meters in thickness. A transgressive dolerite sill occurs to the north of the area and bisects the north-western corner of the reserve.

3.1.2 Climate

3.1.2.1 Regional Climate

Goedehoop Colliery falls into the Eastern Plateau Highveld climate zone, characterised by relatively warm wet summers and cold dry winters.

3.1.2.2 Mean Monthly Rainfall

Average monthly rainfall and the number of days experiencing rainfall are presented in Table 4. The mean annual precipitation of the site is 687 mm. The mean annual evaporation of the site is 1522 mm (S-Pan). The Mpumalanga Highveld has distinct wet and dry seasons. 91% of the Colliery's mean annual rainfall falls between October and April inclusively. 68% of the area's mean annual evaporation occurs in this period (Midgley et al., 1990).

Table 4: Average Rainfall for the region (over 77 years from 1929 to 2006)

MONTH	MM	AVERAGE NO OF RAIN DAYS
January	116.5	10.4
February	96.3	7.8
March	74.8	7.1
April	42.8	4.5
May	16.3	2.1
June	7.6	1.2
July	6.6	0.9
August	6.9	1.0
September	24.2	2.8
October	67.8	7.0
November	112.6	10.4
December	110.6	10.3
Annual Average	687	

3.1.2.3 Mean Monthly Maximum and Minimum Temperatures

The mean maximum and minimum temperatures, extrapolated from the Pretoria, Middelburg, Belfast and Carolina weather stations are presented in Table 5.

Table 5: The mean maximum and minimum temperatures

MONTH	DAILY MAX. °C	DAILY MIN. °C	DAILY MEAN. °C
January	27,2	13,7	20,5
February	26,8	13,4	20,1
March	26,0	11,4	18,7
April	23,9	7,4	15,7
May	21,3	2,2	11,7
June	18,5	-1,8	8,3
July	18,4	-1,7	8,3
August	21,4	0,8	11,1
September	24,0	5,3	14,7
October	26,0	10,1	18,0
November	26,2	11,8	19,0
December	27,1	13,2	20,1

3.1.2.4 Wind Direction and Speed at the Project area

In the study area, the mean daytime surface winds are predominantly north westerly as a result of the prevalent anticyclonic circulation, with easterly winds being the next most frequent. In the winter, the frequency of south westerly winds increases because of the passage of cyclonic westerly waves. Light topographically induced winds from the eastern sector are common at night. The so-called Escarpment Breeze that develops at night under weak pressure gradients is up to 1 000m deep. Winds are mostly light except during thunderstorms. Very occasionally tornadoes do occur. Sunshine

duration in summer is about 60% and in winter about 80% of the possible.

3.1.2.5 Mean Monthly Evaporation

The mean monthly evaporation (S-Pan) for the region obtained from Bethal Weather Station is presented in Table 6. The mean annual evaporation of the site is 1522 mm (S-Pan). The Mpumalanga Highveld has distinct wet and dry seasons. 91% of the Colliery's mean annual rainfall falls between October and April inclusively. 68% of the area's mean annual evaporation occurs in this period (Midgley et al., 1990).

Table 6: Mean monthly evaporation for the region.

MONTH	Evaporation (mm)
January	167.4
February	139.6
March	137.7
April	105.9
May	89.2
June	72.4
July	79.3
August	105.0
September	136.1
October	164.1
November	154.8
December	170.5
TOTAL	1522

3.1.2.6 Extreme weather conditions

- Hail: Occurs 4 to 7 times per year
- Drought: ± every 6 years
- Frost: Can occur from end of April to September

3.1.3 Topography

3.1.3.1 Local topography

The mine is situated in the Eastern Highveld region of Mpumalanga, which is characterised by a gentle undulating plateau with fairly broad to narrowly incised valleys such as the Olifants River valley.

The topography of the Goedehoop Colliery is undulating, dipping towards the Olifants River. A number of rocky outcrops form a series of ridges, which run in an east-west direction. Typically these ridges are associated with surface water features such as rivers, streams and pans. Surface

elevations across Goedehoop Colliery range from 1535 m to 1600 mamsl. The proposed expansion area slopes towards the Goedehoopspruit to the south and North West of the discard dump area, with average slopes of between 2% and 4%, while the southern part close to the river is nearly flat.

3.1.4 Soils

The soils of the property have been mapped at a scale of 1:10 000 by the Institute for Soil, Climate and Water and classified using the South African soil classification system (Soil Classification Working Group, 1991). Most of the soils of the area were found to be uniform with respect to topsoil and subsoil structure and texture. The following soil forms were identified at the study area i.e. Avalon, Glencoe, Hutton, Pinedene, Witbank, Longlands, Willowbroo, Rensburg.

Wetland and soil delineation was also conducted in December 2011, for which a soil survey was conducted in the low-lying areas. This survey confirmed the presence of grey soils in the lower-lying areas (Rensburg, Longlands, Willowbroo), with deeper, yellow soils occurring further up the catenal sequence.

3.1.5 Land Use

The proposed project area is situated within an approved mining right area (Goedehoop Colliery), and there is the presence of mining activity and agricultural activity within the surrounding areas.

3.1.6 Natural Vegetation / Plant Life

According to Mucina & Rutherford (2006) Goedehoop Colliery falls into the Eastern Highveld Grassland (Gm 12) vegetation unit of the Mesic Highveld Grassland Bioregion. It is distributed in Mpumalanga and Gauteng provinces on the plains between Belfast in the east and the eastern side of Johannesburg in the west, extending southwards to Bethal, Ermelo and west of Piet Retief.

The vegetation is short dense grassland dominated by the usual highveld grass composition *Aristida aequiglumis*, *A. congesta*; *Digitaria monodactyla*, *D. tricholaenoides*; *Eragrostis chloromelas*, *E. curvula*, *E. plana*. *E. racemosa*; *Themeda triandra*; *Tristachya leucothrix*, *T. rehmanii* with small scattered rocky outcrops with wiry, sour grasses and some woody species.

This grassland is very suitable for crop production, with natural vegetation heavily used for grazing by sheep and cattle. Conservation in this grassland is very poor since it is now largely ploughed. Natural vegetation is restricted to patchy remnants, which are often heavily grazed.

The Goedehoop Colliery mining right area has been extensively cultivated, with maize fields covering approximately 75% of the surface area. Natural veld occurred mostly adjacent to wetlands and on rocky ridges. Cattle on the other hand, extensively graze these areas of natural veld.

The vegetation within the pans are restricted to obligate and facultative wetland species. The pans are dominated by sedges as well as the grass *P. distichum*. These species indicate saturated soils. A temporal fringe may occur around the pans. Species such as *E. chloromelas*, *Aristida junciformes* and *Themeda triandra* occur within the fringe.

All wetlands are dominated by seasonal and dry land plant species, with permanent wetland species, such as *Typha capensis*, *Phragmites australis* and *Juncus kraussii* occurring only where standing water occurred.

3.1.7 Surface Water

Goedehoop Colliery mining right area falls within the Olifants River and Klein Olifants catchments. Goedehoop Colliery mining right area falls in the B11 and B12 tertiary drainage regions of the Olifants River catchment. Within these tertiary regions the site is located in quaternary catchment B11B. It is located next to the R542 approximately 3 km west of Komati village and the Komati power station. The Goedehoopspuit, a small, non-perennial stream flows south east to north west through the site. The headwaters of this stream are less than 5 km east, south east of the site. The Koringspruit flows from east to west, approximately 2.5 km north of the site. The Goedehoop Colliery mining right falls within the Koringspruit management unit (MU3), and the Olifants River management unit (MU8). The proposed Discard dump expansion and retreat plant area falls within the Koringspruit management unit (MU3).

Figure 4 depicts the location of the Goedehoop Colliery Mining right area in relation to the tertiary and quaternary drainage regions within the Olifants River.

3.1.7.1 Catchment Boundaries

3.1.7.1.1. Catchment Delineation

The Goedehoopspuit catchment measures approximately 13 km² where it exits the study area. The catchment is mostly undeveloped and consists mostly of dry-land cropping and some livestock agriculture and impacted grasslands. Portions of the Goedehoop and neighbouring colliery's discard dumps fall within the catchment.

The Goedehoopspuit passes through a river diversion while in the study area. The river diversion structure consists of a rock-clad earth embankment with a side channel exit into an unlined, but relatively well vegetated trapezoidal channel. The channel is excavated into the natural ground. The rock-clad earth embankment has a wide, shallow emergency spillway that discharges into the original water course over a rock-clad spillway. The Goedehoopspuit flows under a service road and a railway siding, before flowing between the Goedehoop plant and current discards dump. It then meets the Koringspruit north of Goedehoop Colliery.

The Koringspruit catchment measures approximately 85 km² where it exits the study area. The catchment is largely undeveloped, with the settlements of Blinkpan and Komati and the Komati Power station being the main developed areas. The undeveloped areas consist mostly of dry-land cropping and some livestock agriculture and impacted grasslands. The Goedehoop and neighbouring colliery's discard dumps fall within the catchment, as do the Komati power station ash dams. The topography is relatively flat with slopes averaging around 3 - 4%. However, localised areas have steeper slopes, particularly in the vicinity of the Koringspruit. The Koringspruit is marked as a perennial stream on topographical sheet 2629AB. The tributaries of the Koringspruit are non-perennial and one tributary is canalised. The tributaries are dammed by small farm dams in a few locations upstream of the study area.

3.1.7.1.2. Mean Annual Runoff

The mean annual runoff for the Goedehoopspruit in the study area is 634 500 m³. The mean annual runoff for the Koringspruit at the confluence with the Goedehoopspruit is 3 514 000 m³. The mean annual runoff for the quaternary catchment B11B is 21.12 Mm³ (Middleton and Bailey, 2009). The catchment characteristics of the two stream catchments are similar to those of the quaternary catchment so the mean annual runoff was scaled from the quaternary catchment runoff, based on relative catchment size.

3.1.7.2 River Diversions

No river diversions are planned for the activities covered by this Scoping Report.

3.1.7.3 Water Authority

The Olifants River basin upstream of the Witbank Dam is a government water controlled catchment. The authority in charge is the Department of Water Affairs and Forestry (Mpumalanga Regional Office).

3.1.7.4 Wetland

Part of the Discard dump expansion associated infrastructure such as the silt trap drying bed, and the proposed conveyor belt crossing over the tributaries of the Olifants River will be constructed within 32 metres of the water course.

3.1.8 Air Quality

Potentially air pollution may arise from construction activities of the proposed Goedehoop Colliery discard dump expansion and plants project as a result of particulates entering the atmosphere. The proposed Briquetting plant will require an emissions licence.

3.1.9 Sites of Archaeological and Cultural Interest

No site of significant archaeological or cultural interest has been identified over the proposed Goedehoop Colliery discard dump expansion and plants project area.

3.1.10 Sensitive Landscapes

Goedehoop Colliery recognises that all streams and wetlands occurring near the proposed project area should be treated as sensitive landscapes.

3.1.11 Visual Aspects

The proposed project area is situated within an approved mining right area, and there is the presence of mining activity within the surrounding areas. The implication of this is that the "sense of place" of the study area has been impacted on by these activities. In terms of the proposed Goedehoop Colliery discard dump expansion and plants project, the Discard dump expansion and the Briquetting plant will be visible from the R542.

3.1.12 Regional Socio-Economic Structure

3.1.12.1 Population Growth and Location

Goedehoop Colliery's Discard dump expansion and plants project is situated within Steve Tshwete Local Municipality which falls within the Nkangala District Municipality. The estimated population growth figures increased from the period between 1996 and 2001 and 2001 and 2011 from 1.1% to 2.5% growth rate. The population for the Steve Tshwete Local Municipality based on the 2011 Census is 229 831. The population density in the local area where Goedehoop Colliery's Discard dump expansion and plants project area is located is limited to residents of the mine village, the residents of the informal settlements and the workers of the nearby supermarket. Discard dump expansion and plants project area is not an area that has been targeted for extensive development; therefore it is unlikely that the current population will expand significantly. It is therefore expected that population changes will only occur as a results of births and deaths in the area.

3.1.12.2 Major Economic Activities and Sources of Employment

The major economic activities in the Witbank/Middelburg area are those associated with coal mining, metallurgical industries, commerce and light engineering, power generation, agriculture and administration. 70% of the Witbank area's economic base is founded in minerals. The area's main export is coal (currently only 24% of the total mined), steel and steel products, thus, making the Witbank and Middelburg economy relatively sensitive to world economic cycles.

3.1.12.3 Unemployment Estimate for the Area

Mining methods are changing from the traditional labour intensive underground mining to capital intensive, low-labour opencast mining, which is leading to increased unemployment amongst the semi-

and unskilled workers.

Based on the 2011 Census, the unemployment rate for the Steve Tshwete Local Municipality from year 1996 to 2001 almost doubled, from 11 311 in 1996 to 22 785 in 2001. From 2001 to 2011 there was a decrease in the unemployment rate from 22 785 in 2001 to 20 325 in 2011 which results in a 19.9 % unemployment rate in 2011.

3.1.12.4 Water Supply

The existing water works pump station at Goedehoop Colliery will be used for the proposed Goedehoop Colliery discard dump expansion and plants project. To ensure the efficient use of water, the retreat plants will be fitted with filter presses which will result in water being recycled and only minor top up water will be required.

3.1.12.5 Power Supply

Power supply will be obtained from Eskom.

3.1.13 Interested and Affected Parties

The interested and affected parties identified are as follows:

Department of Water Affairs (Mpumalanga Regional Office)

Department of Mineral Resources (Mpumalanga Regional Office)

Department of Economic Development, Environment and Tourism (Mpumalanga Provincial Office)

Department of Agriculture

Mpumalanga Tourism and Parks Agency

South African Heritage Resources Agency (SAHRA)

Immediate/adjacent landowners and legal occupiers

Steve Tshwete Local Municipality

SECTION FOUR

Detailed Description of the Project

4. DETAILED DESCRIPTION OF THE PROJECT

4.1 NEED AND DESIRABILITY FOR THE PROJECT

The Goedehoop Colliery's Discard Dump Expansion and plants project Area, will achieve Goedehoop Colliery's Life of Mine date. This will ensure that the current labour force has continued employment for a certain period and the support to local businesses is continued.

The discard dump expansion (Phase 2) will allow for airspace for the coarse residue material till 2022, and will assist in the facilitation of value generating projects that will decrease the environmental impact, namely in the briquetting of slimes residue and the retreating of coarse residue.

Unprocessed slimes or ultra-fines with potential value have been discarded until present as was deemed unsuitable as a product due to its quality and handle-ability. With the advent of the lower quality export thermal coal market the possibility of utilising the slimes for saleable export is created. The slimes compartments create a negative environmental impact and create significant volumetric space constraints on the co-disposal facility. The broader significance for Anglo American Thermal Coal will be to evaluate different technologies and methodologies to utilise the slimes compartments as potential reserves. Goedehoop has been identified as the pilot site with the anticipated briquetting of the Western slimes compartment. Based on the estimation done by ATS in 2012, the Goedehoop Western Slimes compartment contains 6, 7 million tons of unprocessed slimes.

The volumetric airspace limit at the Goedehoop South (Goedehoop Colliery) Discard facility slimes compartments are due to be reached in 2015 according to recent modelling done by Anglo Technical Services (ATS). The current LOM estimate is 2038 for Goedehoop South (Goedehoop Colliery). In association with environmental constraints this has led to the identification of remedial projects to alleviate this apparent bottleneck, namely the briquetting Plant.

The current volumetric air space of the Goedehoop slimes dam will reach its capacity by 2015, thereby impacting the Goedehoop LOM planning which is anticipated to run until 2038. This has therefore resulted in value generating projects that will decrease the environmental impact to be considered.

The proposed conveyor belt will be constructed to transport coal from another Anglo Operations Ltd mining project (Elder project) to Goedehoop Colliery's existing plant area for further processing.

The retreated discard will be sold to Eskom's Majuba Power station. The treated discard will be transport by rail. A private siding that belongs to Goedehoop Colliery runs adjacent to the discard dump to the west of the dump. The existing rail infrastructure at Goedehoop Colliery does not favour the dispatching of trains in a westerly direction (towards Majuba Power Station) as the network only caters for rail traffic in an easterly direction on to the coal line. A Transnet Freight rail exists adjacent to Goedehoop Colliery's existing plant area. The railway line will have to be expanded to connect to the general freight rail lines in order to access the Transnet Freight rail network for rail traffic to Eskom's Majuba Power station. Therefore without the expansion of the railway line, the product will not be able to reach the target market, in this case Eskom's Majuba Power station.

4.2 DETAIL DESCRIPTION OF THE PROJECT

4.2.1 Surface Infrastructure

All proposed surface infrastructure in relation to the proposed Discard dump expansion and plants include the expansion of the existing Goedehoop Colliery Discard dump (Phase 2) as well as the construction of the Discard Retreat Plant and the Elders Retreat Plant together with their water management facilities. Both plants are heavy medium density cyclone coal washing plants consisting of a crush and screen section and a water reclaiming section (thickener). A briquetting plant will also be constructed for the coal slimes from the Goedehoop Colliery Discard dump slimes dams. Associated infrastructure will include a conveyor belt which will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery's existing Plant area. Roads will be constructed and widened to access the above mentioned project areas. An existing railway line within the Goedehoop Colliery mining area will be expanded. See Appendix 1.

4.2.1.1 Roads, railways and power lines

With regard to the proposed project, an existing access road will be used for access to the Discard dump expansion and plants project area. This road and stream crossing is relatively narrow for the purpose it should serve and hence it will need to be upgraded. A road leading to the proposed briquetting plant area will also be upgraded.

A Transnet Freight rail exists adjacent to Goedehoop Colliery's existing plant area. A private siding that belongs to Goedehoop Colliery runs adjacent to the discard dump to the west of the dump. The existing rail infrastructure at Goedehoop Colliery does not favour the dispatching of trains in a westerly direction (towards Majuba Power Station). The existing rail network only caters for rail traffic in an easterly direction on to the coal line. The railway line will have to be expanded to connect to the general freight rail lines in order to access the Transnet Freight rail network for rail traffic to Majuba.

The Eskom power grid used by Goedehoop Colliery will be used for the supply of electricity to the new project area.

4.2.1.2 Solid Waste Management

All waste generated from the proposed project area will be transported to the already existing Goedehoop Colliery waste collection system and disposed at registered waste disposal sites. Note that Goedehoop Colliery has an existing contract with a waste collection company for the collection and disposal of the generated waste. The same company will be used for the collection and disposal of waste generated at the proposed plants project area. If necessary, all necessary space and infrastructure will be made available for the temporary storage of the waste at the proposed plants project area. Industrial waste (classified as hazardous waste) arising from the proposed Goedehoop Colliery discard dump expansion and plants project area will be collected and disposed of by a contractor in a registered hazardous waste

disposal site. Other industrial waste will be transported to the Goedehoop Scrap yard where it will be sorted and sold.

All mine residue generated from the reclamation of the coal from the Southern Discard Dump area will be disposed of in the proposed Southern Discard Dump expansion co-disposal site. Note that the proposed expansion of the co-disposal facility will have enough capacity to handle the extra tonnage of coal discard from the coal extracted from the Southern Discard Dump area.

4.2.1.3 Water Pollution Management Facilities

Polluted water in the form of sewage effluent, water from the proposed Goedehoop Colliery discard dump expansion and plants project area and dirty storm water runoff from the area will be generated at the proposed project area. This section of the report will describe the facilities to be used for the management of polluted water to be generated from the site.

Sewage Treatment

All sewage emanating from the Discard dump expansion and plants project ablution facilities will tie in with the existing sewage works at Goedehoop Colliery. In view of the above, no effluent will be released into the environment.

Dirty Storm Water

All dirty storm water emanating from the Discard dump expansion and plants project surface infrastructure area will be routed via dirty management structures to feed into the existing dirty water management structures at Goedehoop Colliery.

4.2.1.4 Transport

Mine officials and senior skilled employees will use their own vehicles for all transport requirements to and from the proposed project area. Where necessary a bus service will be made available to transport other employees from their residence, within the mine property, to their working place.

A conveyor belt will be constructed to convey run of mine (ROM) coal from one of Anglo Operations Limited mining operations (Elders Project) to Goedehoop Colliery's existing Plant area.

A Railway line will be expanded to connect to the existing Transnet Freight Rail network in order to transport treated discard coal to Eskom's Majuba Power Station.

Access roads to the discard dump and proposed plants areas will be widened to cater for the heavy moving vehicles between the briquetting plant and the dump as well as the existing road that joins the R542.

4.2.1.5 Disturbance of Water Courses

Part of the Discard dump expansion associated infrastructure such as the silt trap drying bed, and the proposed conveyor belt crossing over the tributaries of the Olifants River and the stream crossing over

the tributary of the Koringspruit will be expanded will be constructed within 32 metres of these water courses.

4.2.1.6 Storm Water

Storm water drainage facilities will be constructed at the Discard dump expansion and plants project area to tie in with the existing Storm water drainage facilities at Goedehoop Colliery.

4.3 DESCRIPTION OF IDENTIFIED POTENTIAL ALTERNATIVES

Two identified potential alternatives for the Railway line expansion exist, namely Option 1 and Option 2. Both options will be able to depart trains in a westerly direction. Option 1 requires less construction intervention to complete the scheme, as trains will enter the siding and be loaded using the existing load out stations. This is advantageous as it has a lower capital outlay, smaller impact as well as an operational advantage where employees will be familiar with the existing system even though they will have to be amended to cater for the additional traffic.

Option 2 on the other hand is designed as a linear siding which requires a stockpile area where coal will be loaded by frontend loader. This will require double handling of the product which will have an impact on the operational cost which will result in a decrease in operational efficiency. The advantage of option 2 is that the siding can be constructed close to the existing stockpile area reducing material logistics.

SECTION FIVE

Description of Environmental issues and Potential Impacts

5. DESCRIPTION OF ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

This section will only highlight anticipated impacts at the proposed Goedehoop Colliery discard dump expansion and plants project. Note that impacts discussed in this section are only briefly highlighted. A detailed impact assessment in terms of the above-mentioned evaluation method will be given in the environmental impact assessment and environmental management programme report to be submitted.

The proposed Goedehoop Colliery discard dump expansion and plants project will entail the expansion of the South Discard Dump Facility as well as the construction of two Retreat plants a briquetting plant, railway line expansion and the construction of a conveyor belt. Access to Goedehoop Colliery discard dump expansion and plants project area will be via existing access roads. Note that although Goedehoop Colliery is an operational mine, the expansion of the Southern Discard Dump and construction of the plants and associated infrastructure will constitute all phases including the construction phase. In view of the above, potential impacts will arise during and after the operation on the proposed areas, which include the four phases of an operation i.e. Construction phase, Operational phase, Decommissioning phase and Closure phase (Residual Impacts)

5.1 CONSTRUCTION PHASE

During the construction phase, the following activities, which are likely to have a detrimental, effect on the environmental, social and cultural aspects, will be conducted:

- Removal of vegetation
- Stripping and removal of topsoil and usable subsoil layer
- Construction of clean and dirty storm water diversion trenches/berms
- Construction of listed activities applied for, including the expansion of the South Discard Dump Facility as well as the construction of two Retreat plants a briquetting plant, railway line expansion and the construction of a conveyor belt.

The activities listed above are likely to have detrimental effect on the following environmental aspects:

5.1.1 Geology

Stripping and removal of topsoil and usable subsoil layer in preparation of the site for the Goedehoop Colliery discard dump expansion and plants project area and its associated infrastructure.

5.1.2 Topography

The construction of the area for the expansion of the discard dump will result in a topographical highpoint and topographical low points, which will have an impact on the topography of the proposed Goedehoop Colliery discard dump expansion and plants project area.

5.1.3 Soils

The construction phase activities will result in the disruption of the soil profile within the activity areas during the construction phase. The formation of the topsoil stockpiles will result in the topsoil being leached over time.

5.1.4 Land capability

All construction phase activities will result in the reduction of the land capability through disruption of soil profile.

5.1.5 Land Use

All construction phase activities will result in the Land use changing from wilderness to mine associated activity.

5.1.6 Natural vegetation

Except for the stockpiling of topsoil that will result in the covering of the natural vegetation, all the other activities will result in the removal of soils, which in turn will result in loss of vegetation cover.

5.1.7 Animal Life

All construction phase activities will result in the migration of animals away from the proposed Goedehoop Colliery discard dump expansion and plants project area. Disruption of topsoil profile may also lead to loss of animal burrows/microhabitats.

5.1.8 Surface water

The activities undertaken during the construction phase will result in the formation of compacted areas, which has the potential to increase surface runoff within the affected catchments. Exposure of soils may lead to increased silt loads in surface water runoff. Rainfall captured from the plant areas and discard dump will be exposed to carbonaceous material, resulting in elevation of some chemical components of the water. Oil from construction vehicles as well as domestic waste from the campsite may have the potential to pollute the affected catchments.

5.1.9 Groundwater

Oil from construction vehicles and waste from the campsite may have the potential to affect the nearby stream areas.



5.1.10 Air Quality

Movement of construction machinery will generate dust and diesel fumes. Dust will be generated by wind blowing over exposed soils as well as at the retreat where coal discard will be crushed, screened and washed.

5.1.11 Noise

Machine operators in close proximity to machinery will be exposed to noise levels in excess of 85dBA.

5.1.12 Visual Aspects

Certain activities will be visible from the surrounding farms, R542 and their respective farm roads. Note that due to the undulating nature of the topography this impact will be minimal.

5.1.13 Social Aspects

Commencement of the Goedehoop Colliery discard dump expansion and plants project and associated activities may result in the following i.e. Creation of jobs in the immediate area, Development of mine employees in terms of skills and career development, Injection of capital into the local/regional economy, Support of the infrastructure development, community development and poverty eradication projects.

5.2 OPERATIONAL PHASE

The following activities, which may impact on the health of people and the environment, will occur at the proposed Goedehoop Colliery discard dump expansion and plants project area during the operational phase:

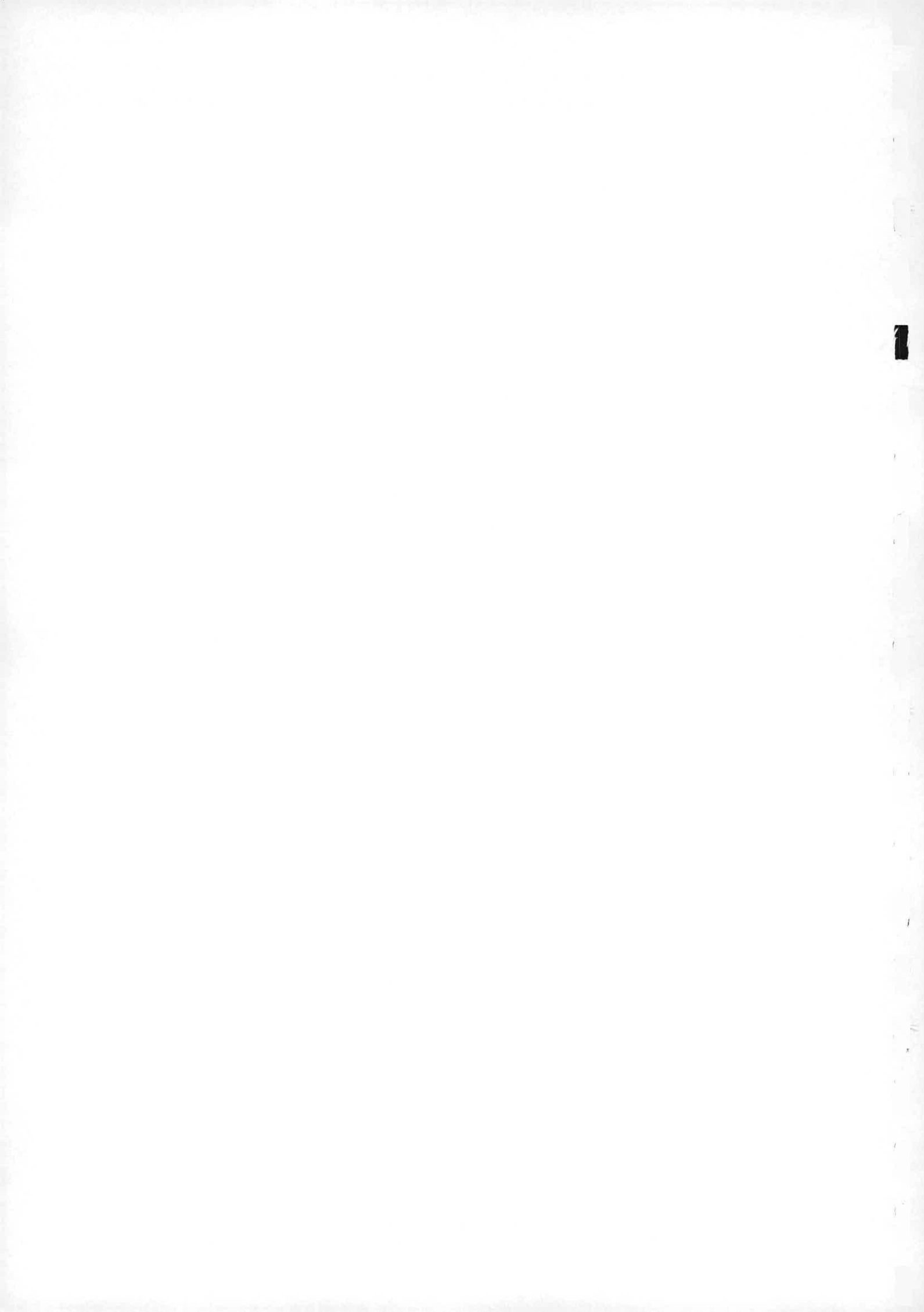
- Systematic removal of the coal discard from the dump for reclamation;
- Stockpiling and transporting of coal discard material;
- Use of the retreat plants and briquetting plant and associated infrastructure
- Use of railway line expansion and conveyor belt

The activities listed above are likely to have detrimental effect on the following environmental/social aspects:

5.2.1 Geology

The stockpiling and reclamation of the coal discard will not have an impact on the on the geological profile of the area.

5.2.2 Topography



Disposal of topsoil, subsoil, and coal discard will result in the topographical highpoints, which may also impact on the topography. This will change the surface elevation and land form, disturb the drainage patterns and increase potential for soil erosion.

5.2.3 Soils

The activities will have no additional impacts than identified in the construction phase.

5.2.4 Land capability

All operational phase activities will result in the reduction of land capability as a result of disruption of soil profiles.

5.2.5 Land Use

As described in the construction phase, the land use will change from Agricultural/Wilderness to activities related to mining.

5.2.6 Natural Vegetation

The other operational phase activities will have no additional impacts on the natural vegetation of the area. Note also that the area is mainly used for agricultural purposes, hence very limited natural vegetation occur on the area.

5.2.7 Animal Life

The activities will have no additional impacts than identified in the construction phase. Note also that the area falls within a mining area; hence no significant animal life occurs on the area.

5.2.8 Surface water

5.2.8.1 Surface water quantity

Disposal of coal discard, and operation of the retreat plants and briquetting plant, will result in loss of MAR within the affected surface water catchment.

5.2.8.2 Surface water quality

Runoff from the coal discard dump and plants area may contain elevated chemical concentrations, which will impact negatively on the environment if released. Water contained within the settling dam will show elevated chemical concentrations, which will impact negatively on the environment if released.

5.2.9 Groundwater

During the operational phase of the proposed operation the following impacts on groundwater may occur:

5.2.9.1 Groundwater quality

Seepage from the coal stockpiling area and the expansion of the discard dump may enter the groundwater table, resulting in pollution of the aquifer.

A geohydrological study will be undertaken to determine the extent of the anticipated impacts on groundwater.

5.2.10 Air Quality

During the operational phase of the proposed operation blowing wind over exposed areas (roads, coal stockpiles and discard dump) and mine machinery movement may result in air pollution due to dust and diesel fumes generated. Processes in the Briquetting Plant may result in air pollution due to coal dust particles being generated.

5.2.11 Noise

Operators and residents close to the mine machinery and mining operation may be affected by the noise generated. Noise may be a nuisance on surrounding landowners.

5.2.12 Visual Aspects

All mine surface activities will be visible from a certain distance from the mine. Dust generated from the mine may be visible from a certain distance from the mine.

5.2.13 Regional Socio-Economic Structure

The Goedehoop Colliery discard dump expansion and plants project will have a positive impact on the socio-economic structure by creating employment both directly and indirectly through the multiplier effect and by uplifting the economic levels of the surrounding areas through the continuation of the local economic development projects (Social and Labour Plan).

5.2.14 Interested and Affected Parties

All interested and affected persons have been identified and consulted. Through this consultation all concerns will be recorded and measures to address the concerns identified. During the operational phase the mine will apply an open door policy with the public, meaning the public will be allowed to raise concerns/complaints and the concerns will be addressed promptly.

5.3 DECOMMISSIONING PHASE

During the decommissioning phase of the project, all impacts identified during the operational phase will continue; hence no additional impacts are predicted.

5.4 RESIDUAL IMPACTS AFTER CLOSURE

5.4.1 Geology

The stockpiling and reclamation of the coal discard will not have an impact on the on the geological profile of the area.

5.4.2 Topography

A topographical high point will still remain as the coal discard from the retreat plants will be disposed off in the proposed expansion area of the coal discard dump.

5.4.3 Soils

All soils from the subsoil and topsoil stockpiles will be utilized during the decommissioning phase. The area will then be seeded with an appropriate seed mixture to prevent soil loss and erosion. No significant residual impacts on soil will therefore occur.

5.4.4 Land Capability and Land Use

Due to the placement of appropriate layer of topsoil over the rehabilitated areas, the land capability will approximate pre-mining (wilderness and grazing). Due to the above-mentioned rehabilitation of the mined out areas, the land use will be return to an appropriate land use.

No significant residual impacts on land capability and land use will therefore occur.

5.4.5 Natural vegetation and Animal Life

Seeding of all rehabilitated areas during the operational and decommissioning phase will ensure that a sustainable vegetation cover will establish in the proposed project area. Following cessation of mining activities in the area, animals will begin to migrate back into the area.

No significant residual impacts on vegetation and animal life will therefore occur.

5.4.6 Surface Water

Following re-establishment of natural runoff patterns by rehabilitation and shaping of the mining area surface water runoff will re-establish.

No significant residual impacts are therefore predicted.

5.4.7 Groundwater

5.4.7.1 Potential for the Generation of Acid Mine Drainage or Poor Quality Leachate

Seepage from the discard dump, if not intercepted by dirty water trenches, percolates into the shallow aquifer, forming a pollution plume. Following re-instatement of the groundwater regimes, a groundwater pollution plume is expected to form.

5.4.7.2 Long-term Impacts on Ground water

Following re-instatement of the groundwater regimes, a groundwater pollution plume is expected to form. A geohydrological study will be conducted to determine the extent of the migration plume. During this study a more detailed determination of the potential for acid mine drainage from the rehabilitated opencast will be conducted.

5.4.8 Air Quality

Following cessation of all activities, and seeding of the rehabilitated areas, dust generation will be reduced. No residual impacts on air quality are therefore expected.

5.4.9 Noise

Following cessation of mining activities no further noise generation will occur at the proposed area. No residual impacts are predicted.

5.4.10 Visual Aspects

Following cessation of mining activities, rehabilitation of the area and seeding of rehabilitated areas, the visual aesthetic of the area will be improved in comparison with operational and decommissioning phase impacts.

No negative residual visual impacts are therefore predicted.

5.4.11 Interested and Affected Parties

Most of the environmental impacts that may arise during the construction, operational or decommissioning phase, will cease.

5.5 CUMULATIVE IMPACTS

This section of the environmental impact assessment will attempt to determine if the proposed Goedehoop Colliery discard dump expansion and plants project area will contribute towards any cumulative impacts. For the purpose of this document cumulative impacts will be described as the impacts (including those that has been assessed as being insignificant) that would be significant when combined with the same impact arising from another activity within and around the area of the proposed project.

It must however be mentioned that the assessment of the cumulative impacts is a difficult exercise that requires a combined effort from the different role stakeholders (farmers, mines, industries, individuals etc.) that would contribute to the cumulative impacts identified. Accurate data from the contributing parties will be a key for a thorough and accurate impact assessment.

5.5.1 Topography

Several mining operations are being undertaken in the vicinity of the proposed project. The presence of these mining operations will have an added impact on the regional topography of the area such that the sense of place will be affected. Drainage of the area might also be affected by the presence of other mining operations within and around the proposed project area.

Cumulative impacts on topography over the proposed area are reduced by the undulating nature of the regional topography.

5.5.2 Soil, Land Use and Capability

Due to the area being on Goedehoop Colliery's mining right area, it will be rehabilitated once the mine operation ceases, and this therefore reduces the significance of the cumulative impacts.

5.5.3 Natural Vegetation

Due to the area being disturbed already, Rehabilitation of the area would in a sense mitigate against these impacts. The land may be reverted back to agriculture (grazing or crop production) provided good rehabilitation is undertaken.

5.5.4 Surface water

Mining and its associated activities has over the past decades had detrimental effects on the surface water environment. This could be attributed to previous environmentally unfriendly mining practices. The presence of several mining activities within one catchment may have severe effects on the surface water environment. However, due to new technologies and environmental awareness that has been promoted over the last decade, mining and its associated activities can be undertaken such that the impacts on the surface water environment are significantly minimised and controlled.

Agriculture, which currently dominates the area, has also been detrimental to the surface water environment. Several wetlands have been lost due to overgrazing and attempted cultivation. Exposure of ground has also resulted in increased silt entering the water environment resulting in serious consequences to the livelihood of the surface water environment. Based on the above, cumulative impacts on surface water could be serious if no mitigation measures are undertaken.

Anglo Operations Limited will, in view of the seriousness of the potential impacts, continue to undertake the necessary measures to ensure that the proposed project does not contribute to the identified impacts on surface water environment.

5.5.5 Air Quality

During the impact assessment it was identified that air quality will be impacted on by the dust and fumes from the proposed Goedehoop Colliery discard dump expansion and plants project.

Several activities that may have impacts on the air quality within and around the proposed project area are currently being conducted i.e. agriculture and mining.

Agricultural related activities require soil to be prepared especially during the planting season. During the preparation of the soils, a substantial amount of dust is produced.

With the above in mind and the fact that the above-mentioned parties will require services e.g. transporting of products to sites and haulage of material in and out of sites, which will result in secondary air pollution, the impacts on air quality might be significant. It must however be mentioned that the magnitude of the impact on air quality from the different parties will not be the same. Some activities will have more significant impact on the air quality than others. It is however not expected that the cumulative impact on air quality would be significant if all parties take reasonable measures to minimise the generation of dust within their operations.

SECTION SEVEN

Conclusions & Recommendations

6. CONCLUSION

The purpose of this final chapter is to:

Briefly discuss how the objectives of the report have been met,

Provide an indication of how complete the information in this report is for decision-making purposes.

6.1 OBJECTIVES OF THIS REPORT

The objectives for this report were outlined in Section 1.4. These objectives were as follows:

Present information to the authorities about the proposed project.

Provide information regarding alternatives that have been considered by Anglo Operations (Pty) Limited.

Show how interested and affected parties will be afforded the opportunity to contribute to the project, to comment on the findings of the impact assessment and show that their issues were considered.

Describe the baseline environment. A description of the receiving environment is given in Section 3.

Describe the extent of environmental consequences for the construction, operating and closure phases. A summary of the potential impact, for construction, operation and decommissioning, is given in Section **Error! Reference source not found.**

Describe the environmental feasibility of the proposed project – the potential negative impacts relating to environment can be mitigated appropriately while significant socio-economic benefits to the country could be realised if the project proceeds.

6.2 ENVIRONMENTAL FEASIBILITY OF THE PROPOSED PROJECT

Based on the environmental assessment conducted as described in this Scoping Report, there are no significant environmental impacts associated with the proposed project that cannot be mitigated.

SECTION EIGHT

Statutory Requirements

7. STATUTORY REQUIREMENTS

All activities within the proposed area has been evaluated and activities listed in terms of the EIA Regulations and Section 24 (7) of the National Environmental Management Act, 1998 (Act 107 of 1998) have been identified and relevant authorisation have been applied for.

Any other statutory requirements identified by the interested and affected parties will be verified and if necessary relevant authorisations applied for.

8. PLAN OF STUDY

8.1 DESCRIPTION OF TASKS THAT WILL BE UNDERTAKEN AS PART OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The proposed Goedehoop Colliery discard dump expansion and plants project will be undertaken mainly on agricultural land within the Goedehoop Colliery mining right area. It will be necessary for Goedehoop Colliery to undertake detailed environmental studies.

The following environmental studies will be undertaken and included in the EIA.

- Geohydrological study

The geohydrological study will be conducted on the proposed Goedehoop Colliery discard dump expansion and plants project area. This study will determine the prevailing groundwater conditions within the proposed area and surrounds, which will include the following i.e. local geohydrology, groundwater levels, groundwater quality and aquifer perimeters.

A numerical groundwater modelling to gain insight into the likely groundwater behaviour in the proposed project area will be created. The model will help predict the behaviour of groundwater in terms of the groundwater movement during and after the proposed project area.

- Wetland study

The wetland study will describe wetlands that are present on site. The study will further describe the types of wetlands present, their present ecological status and ecological importance and their sensitivity.

- Surface water study

A detailed description of the surface water in terms of the surface water quality, surface water quantity and stream health (Macro-invertebrates) will be determined.

The assessment of the surface water quantity will include the catchment boundary, mean annual run-off, normal dry weather flow, flood peaks and flood volumes of the catchments that may be affected by the proposed project activity.

The assessment of the surface water quality will include the determination of the surface water quality in all the streams and water bodies in the vicinity of the proposed project.

The aquatic macro-invertebrates study will assist in determining the river health of the nearby streams. The assessment will be conducted at specific points within the streams. This study will determine the current health of the streams that may be affected by the proposed project. The aquatic macro-invertebrates study will identify the types of species within the stream, which will determine in terms of their tolerance to water quality variables/ water pollutants the current river health of the streams.

- Heritage impact Assessment

The Heritage Impact Assessment will include the assessment of potential areas of historical or cultural importance within the proposed project area.

- Vegetation Survey

The Vegetation Survey will include the determination of vegetation species present within the proposed project area.

- Soil Survey

The Soil survey will include the determination and delineation of the different soil types within the proposed project area.

- Air Quality Study

The Air quality study will be conducted in order to determine the quality of the air in relation to the proposed project and its potential impact on the air quality.

- Noise Survey

The noise survey will determine the noise that will be generated from the proposed project and its potential to impact the surrounding environment.

8.2 STAGES AT WHICH THE COMPETENT AUTHORITY WILL BE CONSULTED

The competent authority will be consulted on submission of the Draft Scoping Report (This document).

On acceptance of the Draft Scoping Report, The final Scoping report will be submitted to include comments received from O&AP's. On acceptance of the final Scoping Report, a draft EIA / EMP will be compiled. After consultation with I&AP's, the final EIA/EMP will then be submitted to the Competent authority including comments (if any) received from the I&AP's.

8.3 DESCRIPTION OF THE PROPOSED METHOD OF ASSESSING THE ENVIRONMENTAL ISSUES AND ALTERNATIVES, INCLUDING THE OPTION OF NOT PROCEEDING WITH THE ACTIVITY

The following prediction and evaluation of impacts is based on the proposed Goedehoop Colliery discard dump expansion and plants project activities to be conducted at the proposed area.

The evaluation distinguishes between significantly adverse and beneficial impacts and allocates significance against national regulations, standards and quality objectives governing:

Health & Safety

Protection of Environmentally Sensitive Areas

Land use

Pollution levels

Irreversible impacts are also identified.

The significance of the impacts is determined through the consideration of the following criteria:

Probability : likelihood of the impact occurring

Area (Extent) : the extent over which the impact will be experienced.

Duration : the period over which the impact will be experienced.

Intensity : the degree to which the impact affects the health and welfare of humans and the environment (includes the consideration of unknown risks, reversibility of the impact, violation of laws, precedents for future actions and cumulative effects).

The above criteria are expressed for each impact in tabular form according to the following definitions:

Probability	Definition
Low	There is a slight possibility (0 – 30%) that the impact will occur.
Medium	There is a 30 –70% possibility that the impact will occur.
High	The impact is definitely expected to occur (70% +) or is already occurring.
Area (Extent)	Definition
Small	0 – 40 ha
Medium	40 – 200 ha
Large	200 + ha
Duration	Definition
Short	0 – 5 years
Medium	5 – 50 years
Long	51 – 200 years
Permanent	200 + years

Intensity	Definition
Low	Does not contravene any laws, Is within environmental standards or objectives, Will not constitute a precedent for future actions, Is reversible Will have a slight impact on the health and welfare of humans or the environment.
Medium	Does not contravene any laws, Will not constitute a precedent for future actions, Is not within environmental standards or objectives, Is not irreversible Will have a moderate impact on the health and welfare of humans or the environment.
High	Contravene laws, May constitute a precedent for future actions, Is not within environmental standards or objectives, Is irreversible

Will have a significant impact on the health and welfare of humans or the environment.

Significance	Definition
Negligible	The impact is insubstantial and does not require management
Low	The impact is of little importance, but requires management
Medium	The impact is important; management is required to reduce negative impacts to acceptable levels
High	The impact is of great importance, negative impacts could render options or the entire project unacceptable if they cannot be reduced or counteracted by significantly positive impacts, and management of these impacts is essential
Positive	The impact, although having no significant negative impacts, may in fact contribute to environmental or economical health

8.4 PUBLIC PARTICIPATION PROCESS

8.4.1 Interested and Affected Parties

The following have been identified as the Interested and Affected Parties (IAP’S) for the proposed project, i.e.

- Department of Mineral Resources (Mpumalanga Regional Office)
- Department of Water Affairs (Mpumalanga Regional Office)
- Department of Agriculture and Land Administration
- Department of Economic Development, Environment and Tourism
- Mpumalanga Tourism and Parks Agency
- South African Heritage Resources Agency (SAHRA)
- Steve Tshwete Local Municipality
- Surface owners
- Adjacent landowners

During consultation process, the public are offered an opportunity to register their names as interested and affected parties; hence the above list might change.

8.4.2 The Consultation Process

Immediate and adjacent landowners have been notified in writing of the intention to undertake the proposed activities at the Discard dump expansion and plants project area.

Notifications of the Discard dump expansion and plants project operation and request for comments have been placed in the local newspaper. Depending on the response, a public meeting will be arranged. Attendees will be required to sign an attendance register.

All concerns and objections will be recorded and a follow-up meeting will be arranged with the concerned parties during the environmental impact assessment process. The concerns/objections will be discussed with the concerned parties so that a mutual agreement can be reached. No concerns/objections have been received as yet.

Consultation with the following departments will also take place:

- Dept. of Agriculture and Land Administration
- Dept. of Water Affairs
- Dept of Mineral Resources
- Mpumalanga Tourism and Parks Agency

Advertisements

Advertisements have been placed in the local newspaper and reasonable alternative methods will be done for person who unable to participate due illiteracy or disability.

The advertisement is in accordance with Regulation 54 of Government Notice No. R534 under section 24 of the National Environmental Management Act (Act 107 of 1998).

Identification of issues and alternatives

Interested and Affected Parties will be informed about the proposed project and the potential impacts thereof. All concerns and issues raised by the I&AP's will be noted and addressed. An explanation of how the issues will be addressed will be given to the I&AP's concerned.

Evaluation of concerns

Concerns will be addressed by relevant professionals including the mine's consultant and attended to according to their significance as indicated in the impact rating. No comments and concerns have been received as yet.

Strategy to address concerns

Key environmental and social concerns will be evaluated through open communication with the relevant authorities and I&AP's who lodged concerns / complaints. No comments and concerns have been received as yet.

Scoping Phase

- Notified Interested and affected parties (I&AP) via adverts, posters, email and personal consultation to register as an I&AP.
- Draft Scoping Report submitted to registered I&AP's for comment.
- Final Scoping Report will be completed including comments from I&AP's

EIA Phase

- Ongoing communication with I&AP's

- Draft EIA/EMP Report submitted to registered I&AP's for comment.
- Final EIA/EMP Report will be completed including comments from I&AP's

Record of Decision (ROD)

- Inform I&AP's of ROD directly (writing, email, fax) and indirectly (Advert).

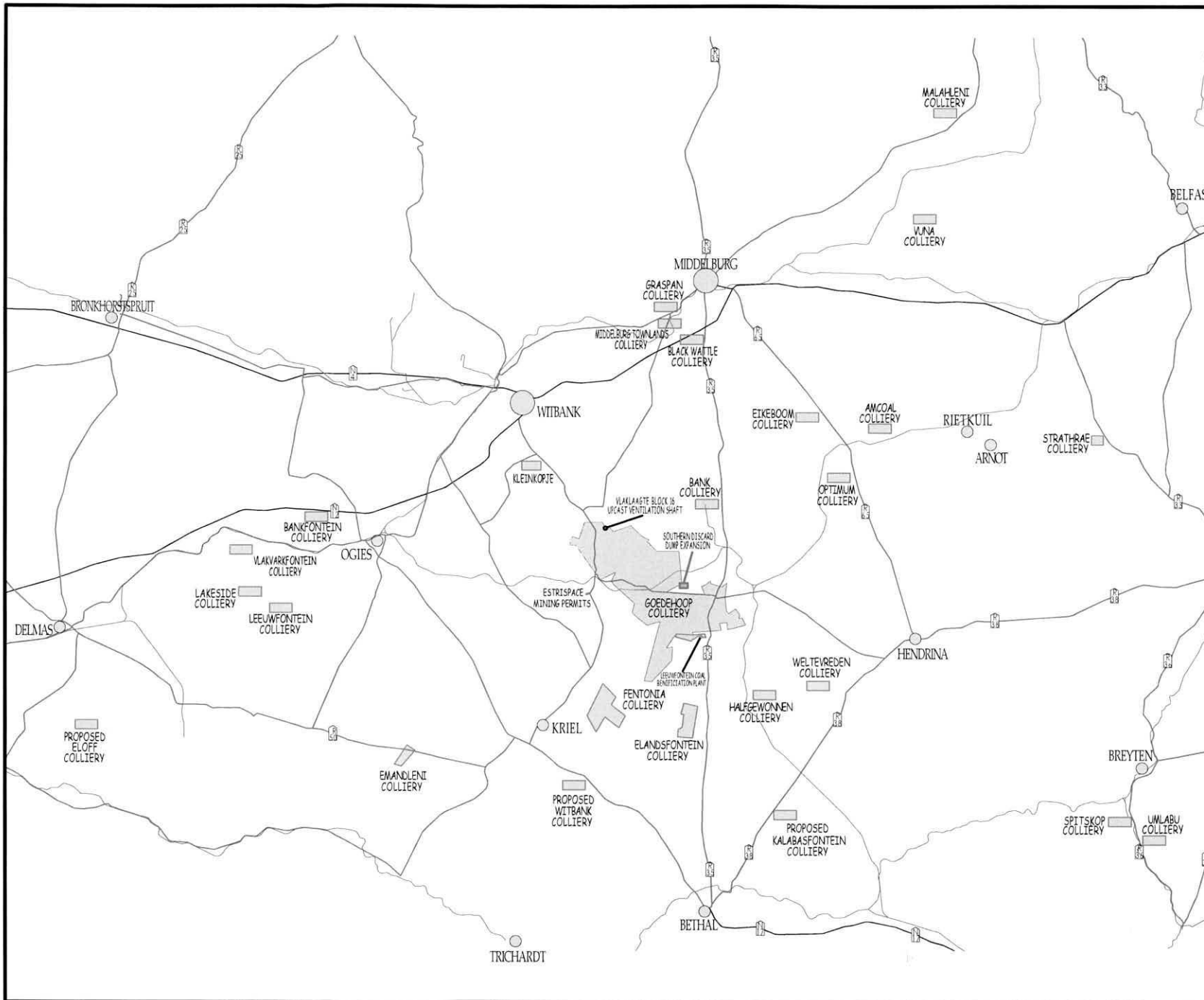
9. COMMENT REPLY SHEET

Geovicon Environmental (Pty) Ltd
P. O. Box 4050
MIDDELBURG
1050
Reg. No.: 2006/030830/07

Tel: 013 243 0542
Fax: 086 632 4936
Cell: 082 359 5604
E-mail: geovicon@iafrica.com

COMMENT REPLY SHEET (Ref no: 17/2/3N-238)

Name:
Contact Details:
Interest in the project:
Comments:





CLIENT
ANGLO OPERATIONS LIMITED


PROJECT
GOEDEHOOP COLLIERY SOUTH DISCARD DUMP EXPANSION AND RETREAT PROJECT


REGIONAL SETTING PLAN


LEGEND


TOWNS AND CITIES 

COAL MINES 

SOUTHERN DISCARD DUMP EXPANSION 

ROADS - NATIONAL 

ROADS - PROVINCIAL 

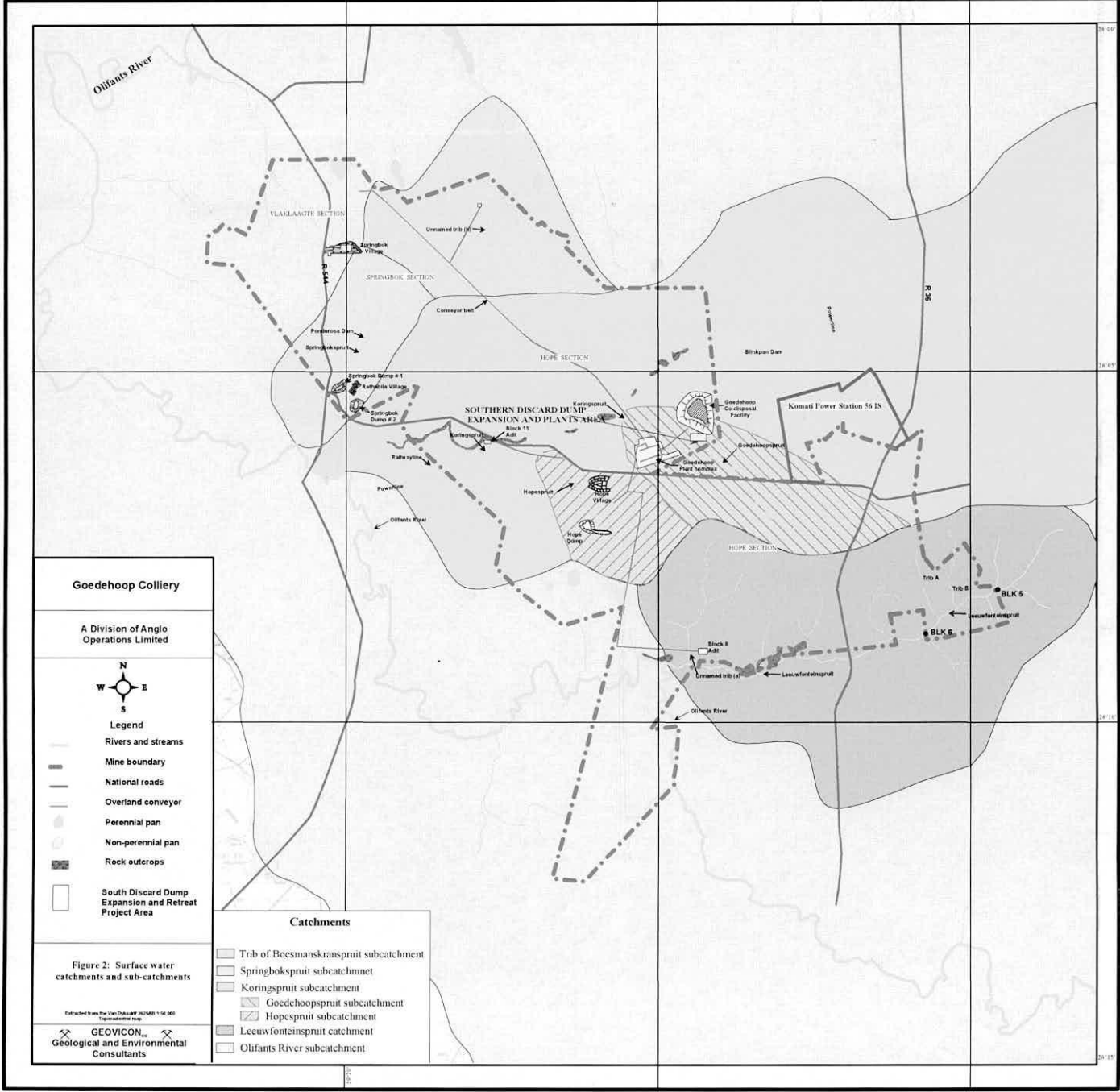
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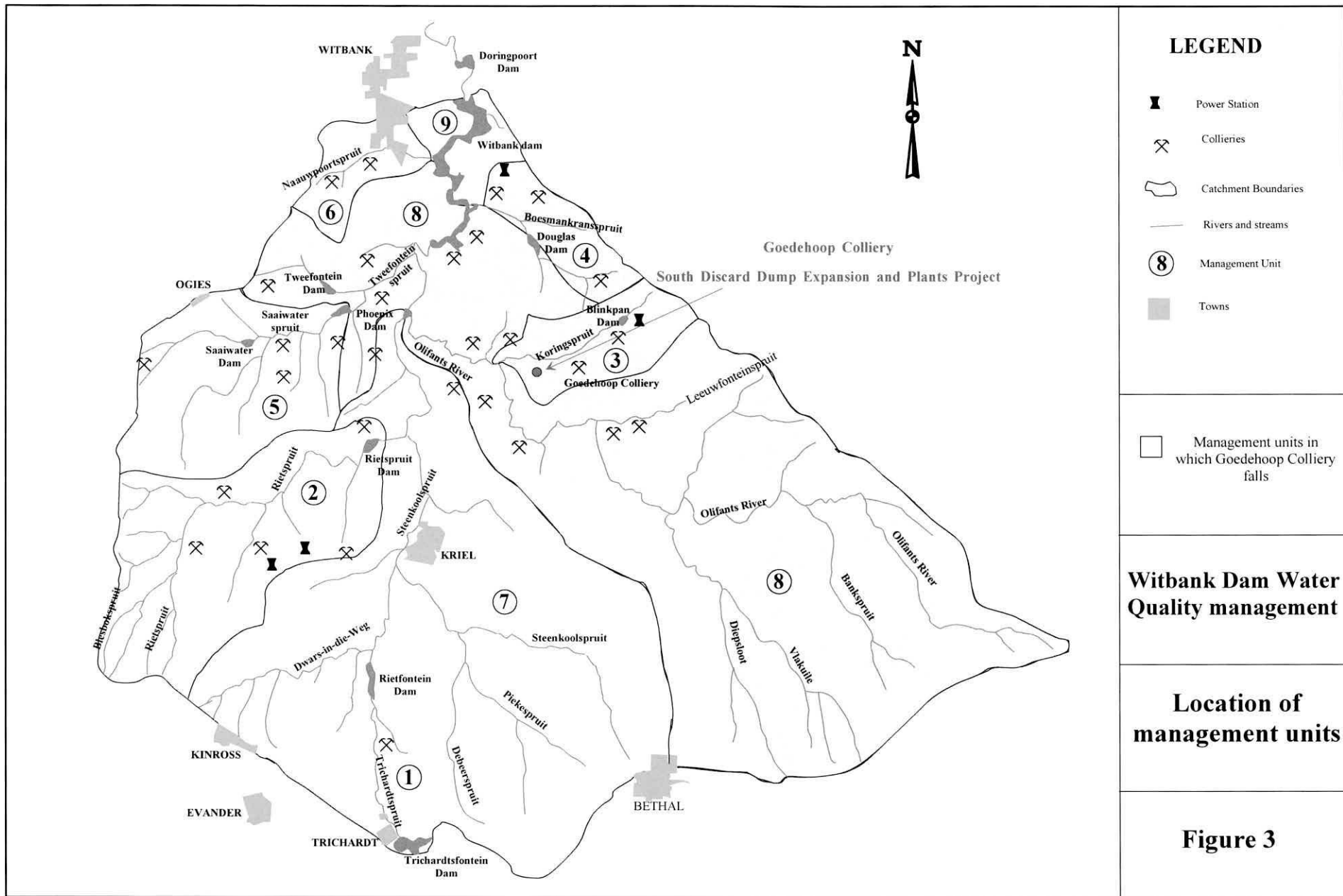
DATE: 03.01.2012

SCALE 1: 450 000

PLAN REFERENCE: **FIGURE 1**

GEOVICON
 DRAWN BY: M KOJETIN
 TEL - (013) 243 5842
 FAX - (086) 632 4936
 E - MAIL: geovicon@iafrica.com





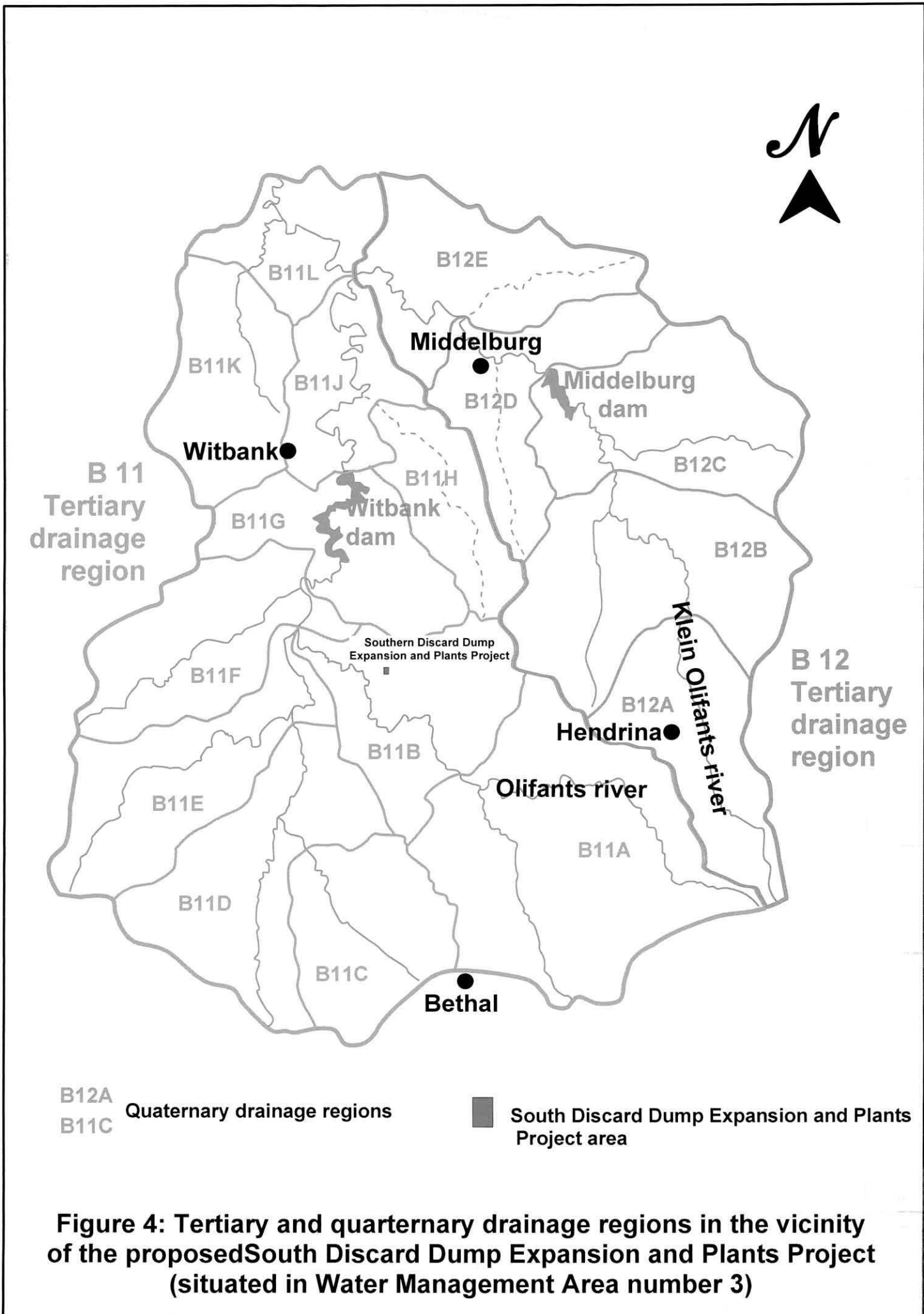






Figure 4: Tertiary and quarternary drainage regions in the vicinity of the proposed South Discard Dump Expansion and Plants Project (situated in Water Management Area number 3)

APPENDIX 1

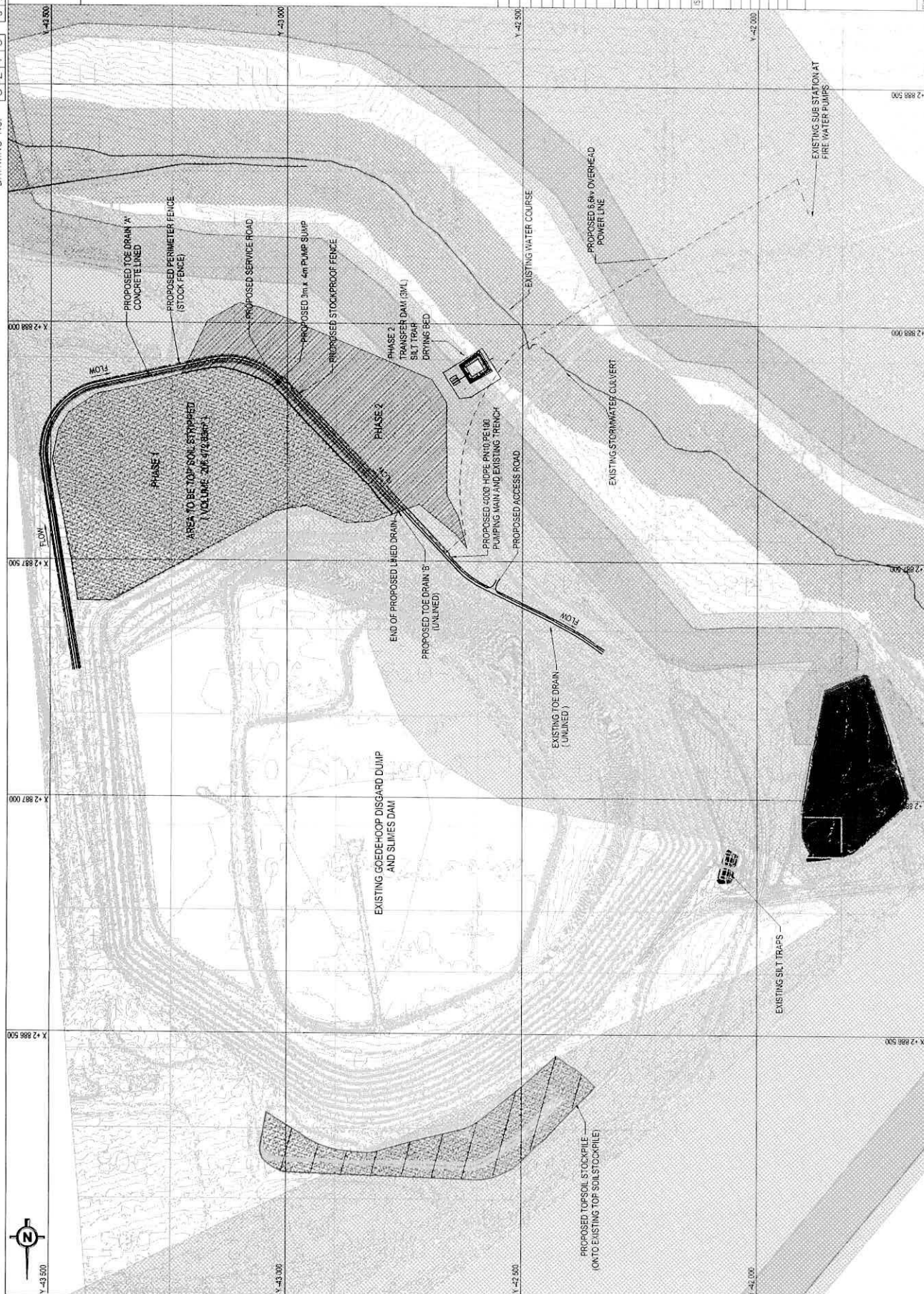
**Proposed Goedehoop Colliery Discard dump
Expansion (Phase 2)**

THE CO-ORDINATE SYSTEM USED IN THIS DRAWING IS
**GAUSS CONFORM LO 29176 EAST
 ELLIPSOID - CLARKE 1880 MODIFIED
 CAPE DATUM**

LEGEND

-  32m BUFFER ZONE
-  100m BUFFER ZONE
-  500m BUFFER ZONE
-  100m RESTRICTION

INFORMATION ONLY



REFERENCES

FILE	DATE	INIT	APP'VD

REVISIONS

No.	DESCRIPTION OF REVISION	DATE	BY

HOLDS

DATE	BY



semame
 SEMAME CONSULTING ENGINEERS (PTY) LTD
 1st Floor, 46 Marston Street, Johannesburg, 2001
 PO Box 61526, Sandton, 2146
 Telephone: +27 (0) 11 851 1800
 Fax: +27 (0) 11 851 1801
 e-mail: info@semame.co.za

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 REV. A

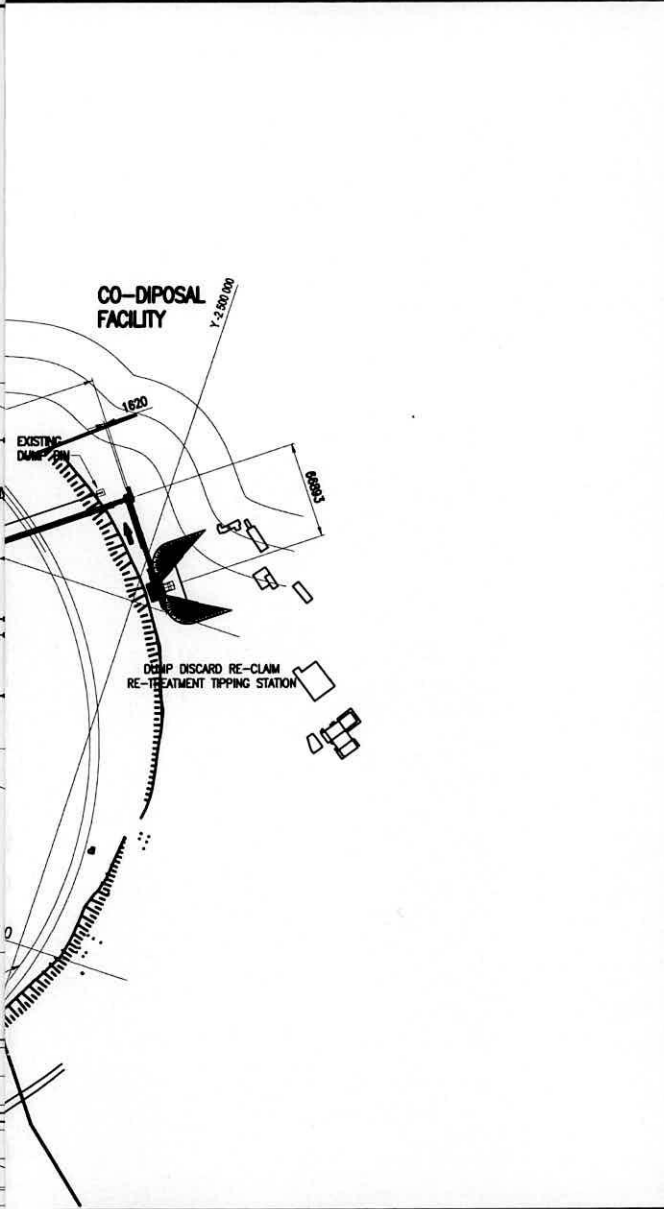
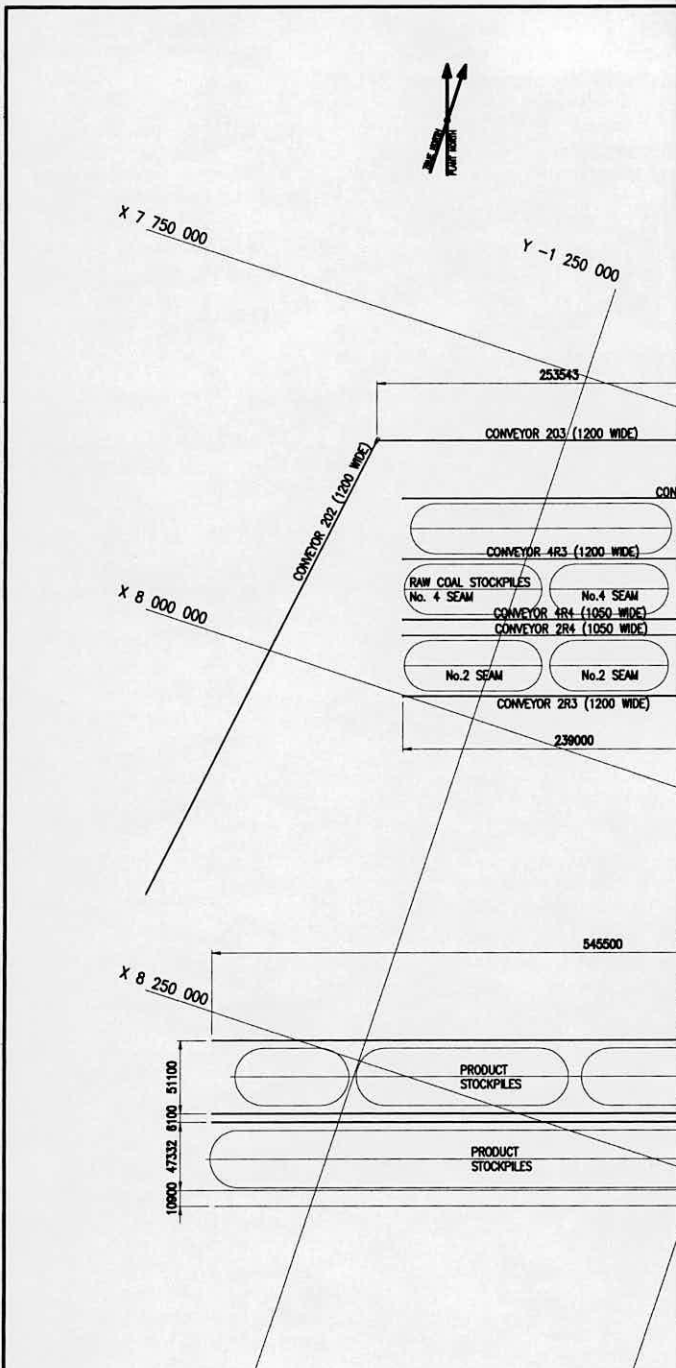
COMPANY: GOEDEHOOP COLLEGE
 PROJECT: DISCARDED DUMP TREATMENT STUDY
 AREA: SURFACE
 LOCATION: INFRASTRUCTURE
 JOB: DUMP EXPANSION
 TITLE: FEASIBILITY - BLOCK PLAN - PHASE 1

ANGLOAMERICAN Thermal Coal
 COPRIGHT: 01281-C1E1-0101016

NAME	DATE	SIGNATURE	ROLE

NAME	DATE	SIGNATURE	ROLE
F. GAUSEN	20/11/2012	F.G.	PROJECT MANAGER
L. BREENHAKKER	04/12/2012	L.B.	ENGINEERING MANAGER
L. BREENHAKKER	04/12/2012	L.B.	PROJECT ENGINEER
			PROCESS MANAGER
			SECTION ENGINEER
B. S. LABRETT/DP	6/17/2012	N. Van Rooyen	CONSTR. MANAGER
			METALLURGIST

Proposed Goedehoop Colliery Retreat Plants



TAGGART JHDA
 www.taggart.com Jan Harbison Design Association (Pty) Ltd
 33 Georgian Crescent East, Bryanston
 P.O. Box 561, Lenasia, 2082,
 Johannesburg, South Africa.
 Telephone (+27)(0)11463-7448.
 Fax (+27)(0)11463-5247.
 Email jhda@jhda.co.za

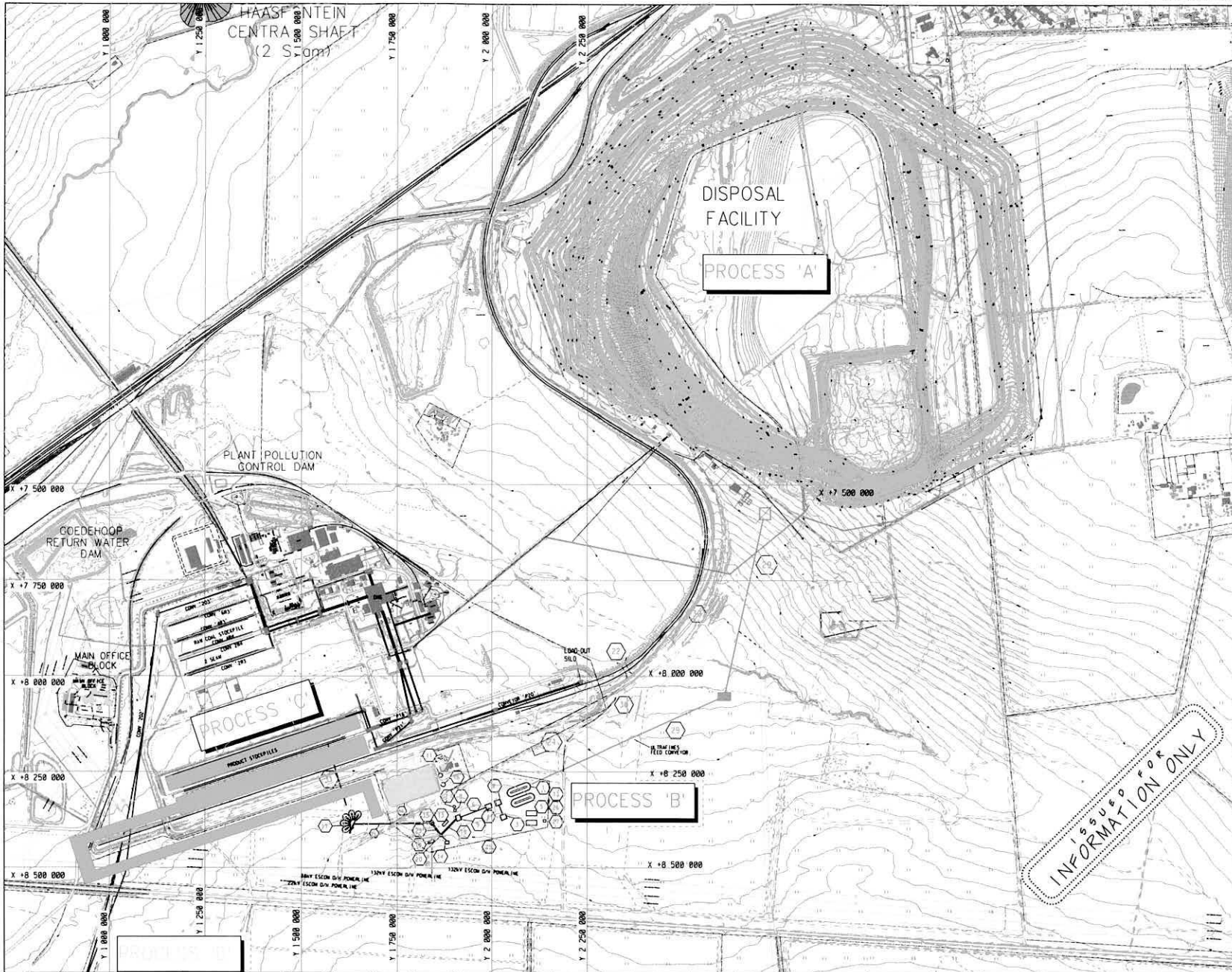
PROJECT NUMBER	DRAWING NUMBER	REVISION
J120305S	A001	OA
BLOCK PLAN		MED-0007
TITLE		DRG No
REFERENCES		
PRE-FEASIBILITY STUDY ISSUE	OA	25.01.2012
DETAIL	MARK	DATE
	BY	APPV'D
REVISIONS		

APPROVED BY					
DESIGNED BY					
NAME	SIGNATURE	REGISTRATION	REG.NO.	DATE	
STRUC. CALCUL. FILE NO.		PROJECT		S	
DESIGNED & APPROVED IN ACCORDANCE WITH AAC SPEC. 114001					
STRUCTURAL ENGINEERING					

CONT-ARHOOP COLLIERY - SOUTH PLANT
 DUMP DISCARD RE-CLAIM RE-TREATMENT PRE-FEASIBILITY STUDY
 CE
 DUMP & WASH PLANT
 LAYOUT ARRANGEMENT
 PROJ.MAN

COPYRIGHT
 SCALE:
 1:750
 ORIGINAL DRG. SIZE A1
 SHEET 1 OF 1
 REV. OA

**Proposed Goedehoop Colliery Briquetting
Plant**



- PROCESS 'A'**
- 21 ULTRA FINES CONVEYOR
 - 22 HAUL ROAD OPTION
 - 23 STORMWATER TRENCH
 - 24 DIRTY WATER TRENCH
- PROCESS 'B'**
- 1 FEED STOCKPILES
 - 2 SCALPING FACILITY
 - 3 SCALPED REFUSE
 - 4 PRE-DRYING
 - 5 CONTROL ROOM & ABLUTIONS
 - 6 CVY 001
 - 7 BOILER
 - 8 BINDER PLANT
 - 9 EIRICH MIXER
 - 10 SILT TRAP
 - 11 FINES RECIRCULATION
 - 12 CURING AND PRE-DRYING
 - 17 PRODUCT STOCKPILE
 - 18 NEW MCC
 - 19 CVY 002
 - 20 BRIQUETTING PLANT
 - 23 CVY 003
 - 26 SECURITY GATE
 - 27 GATE HOUSE
 - 24 CVY 004
 - 25 PERIMETER FENCE
 - 28 WORKSHOPS / STORES
- PROCESS 'C'**
- 11 CVY 005 & TRANSFER CHUTE
 - 12 TIPPING AREA
- PROCESS 'D'**
- 10 POTABLE WATER
 - 11 FIRE WATER
 - 12 WATER WORKS
 - 16 WATER TAKE OFF
- POWER LINES
PROCESS WATER
INFRASTRUCTURE

ISSUED FOR INFORMATION ONLY

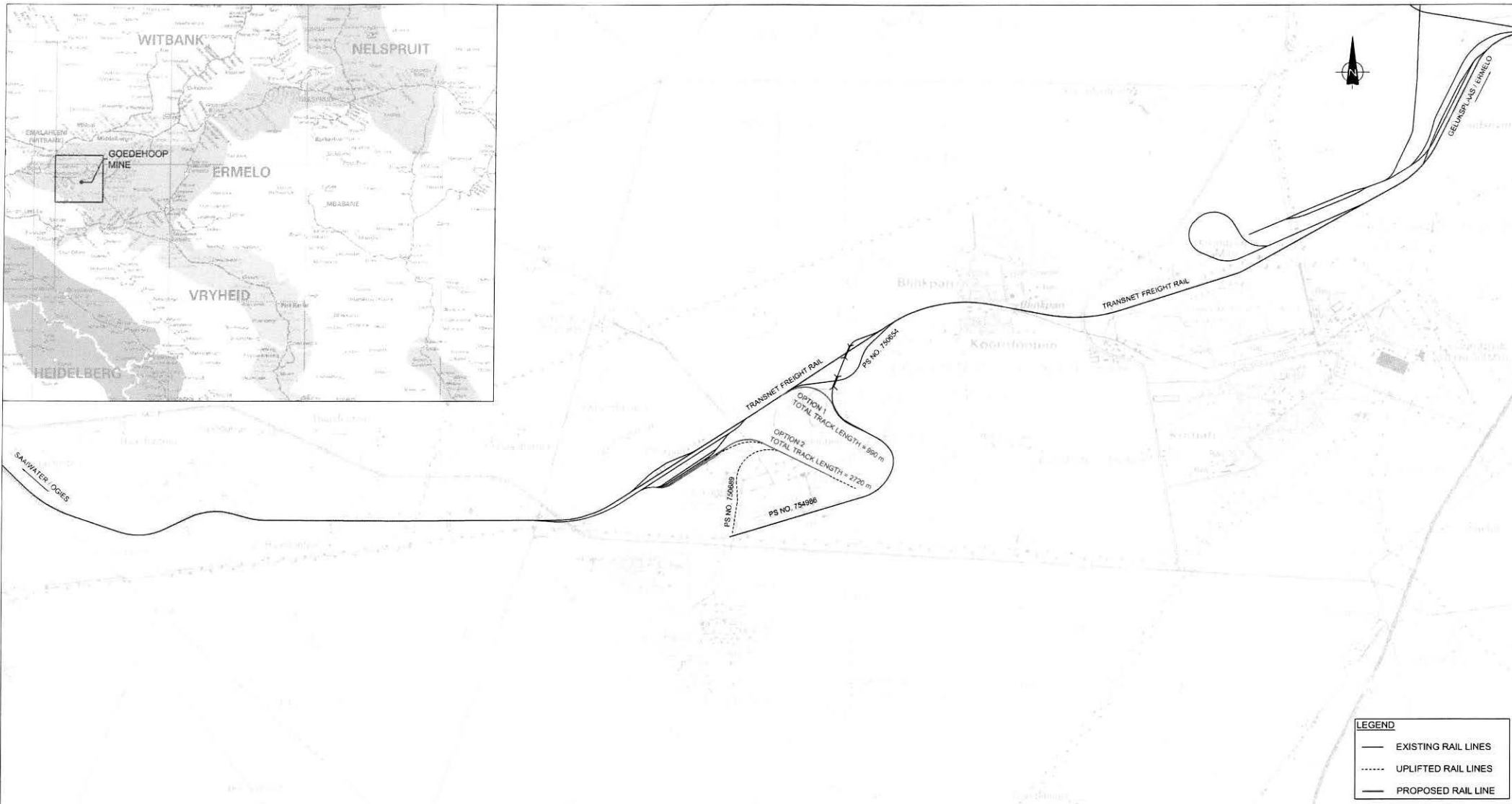
REVISIONS	MARK	DATE	INIT	APP'D
MED-0118	A	26/07/12	T.D	

APPROVED BY	DESIGNED BY	STRUC. CALCUL. FILE NO.	DESIGNED & APPROVED IN ACCORDANCE WITH AA SPEC 114001	CONT-APPROVAL	NAME	DATE	SIGNATURE	MINE - NOTED	NAME	DATE	SIGNATURE	ANGLO - NOTED	NAME	DATE	SIGNATURE
				DRAWN	T. DUNAJINE	24/06/12			PROJECT MANAGER			HEAD OF ENG.			
				CHECKED					ENGINEERING MANAGER			REGIONAL ENG.			
				DESIGNED					PROJECT ENGINEER			MECH ENGINEER			
				PROJ. ENGINEER					PROCESS MANAGER			ELEC. ENGINEER			
				PROJ. ENGINEER					SECTION ENGINEER			C & I ENGINEER			
				PROJ. MANAGER					CONSTR. MANAGER			CIVIL ENGINEER			
												METALLURGIST			



COMPANY	GOEDEHOOP COLLIERY	COPYRIGHT	
PROJECT AREA	GOEDEHOOP PLANT AREA	SCALE:	1:5000 U.S.M
LOCATION	GENERAL LAYOUT	ORIGINAL DRG. SIZE	A1
JOB	GENERAL LAYOUT	SHEET	05
TITLE	PLANT AREA - PROPOSED BRIQUETTING PLANT LAYOUT CONVEYOR OPTION	REV.	A
COPYRIGHT	DRG No. 5275-0000-MED-0119		

**Proposed Goedehoop Colliery Railway line
expansion**



LEGEND	
—	EXISTING RAIL LINES
----	UPLIFTED RAIL LINES
—	PROPOSED RAIL LINE

GENERAL NOTES	
1.	DO NOT SCALE DRAWING. USE PLAN DIMENSIONS ONLY.
2.	THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL ENDORSED 'ISSUED FOR CONSTRUCTION' AND ENDORSED BY A DIRECTOR OF R&H RAIL (PTY.) LTD.
3.	MAPPING BASE : 1:50 000 TOPOGRAPHICAL MAPS (1996 & 2003)
DRAWING NO.	DRAWING DESCRIPTION
REFERENCE DRAWINGS	

REGISTERED PROFESSIONAL						
NAME	DEPARTMENT HEAD	REGISTERED PR. TITLE	PR. ENG.	INSTITUTE	REG. NUMBER	DATE
D.J. HEWSON	PERWAY DESIGN	ECSA	20030241			
PROJECT RESPONSIBILITY						
SIGNATURE	SIGNED: D.J. HEWSON	DATE	21 01 2013			
REGISTERED PROFESSIONAL						
NAME	DEPARTMENT HEAD	REGISTERED PR. TITLE	PR. ENG.	INSTITUTE	REG. NUMBER	DATE
PROJECT RESPONSIBILITY						
SIGNATURE	SIGNED: D.C. BREDEKAMP	DATE	21 01 2013			

R&H DESIGN			
TITLE	NAME	SIGN	DATE
DRAWN	T.F.J. DREYER		14 12 2012
CHECKED	P.J. KOEKEMOER		14 12 2012
DESIGNED	P.J. KOEKEMOER		14 12 2012
CHECKED	D.J. HEWSON		21 01 2013
DIRECTOR APPROVAL			
NAME	D.C. BREDEKAMP		
COMPANY TITLE	MANAGING DIRECTOR		
REGISTERED PR. TITLE	PR ENG		
INSTITUTE	ECSA	REG. NUMBER	960225
PROJECT RESPONSIBILITY	MANAGING DIRECTOR		
SIGNATURE	SIGNED: D.C. BREDEKAMP	DATE	21 01 2013

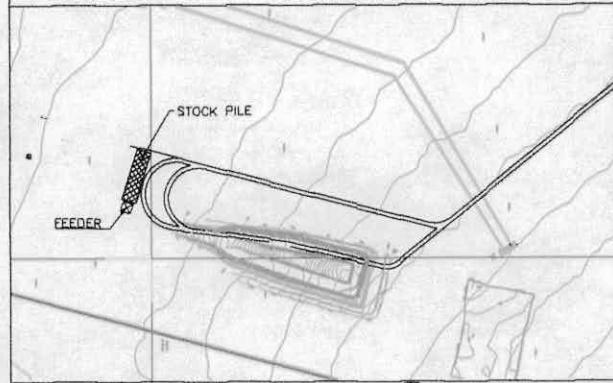
TAGGART JHDA				
GOEDEHOOP COLLIERY				
PROPOSED RAIL INFRASTRUCTURE LOADING FACILITY				
LAYOUT				
SCALE 1:25000	A2	CONTROLLED	PROJECT NUMBER	5220-100-001
DRAWING NO.			G001	
SHEET	00	REV	0A	

R&H Rail (Pty) Ltd	
PO Box 858	
Randburg	
2125	
t: +27 (0)11 886 6951	
f: +27 (0)11 886 7792	

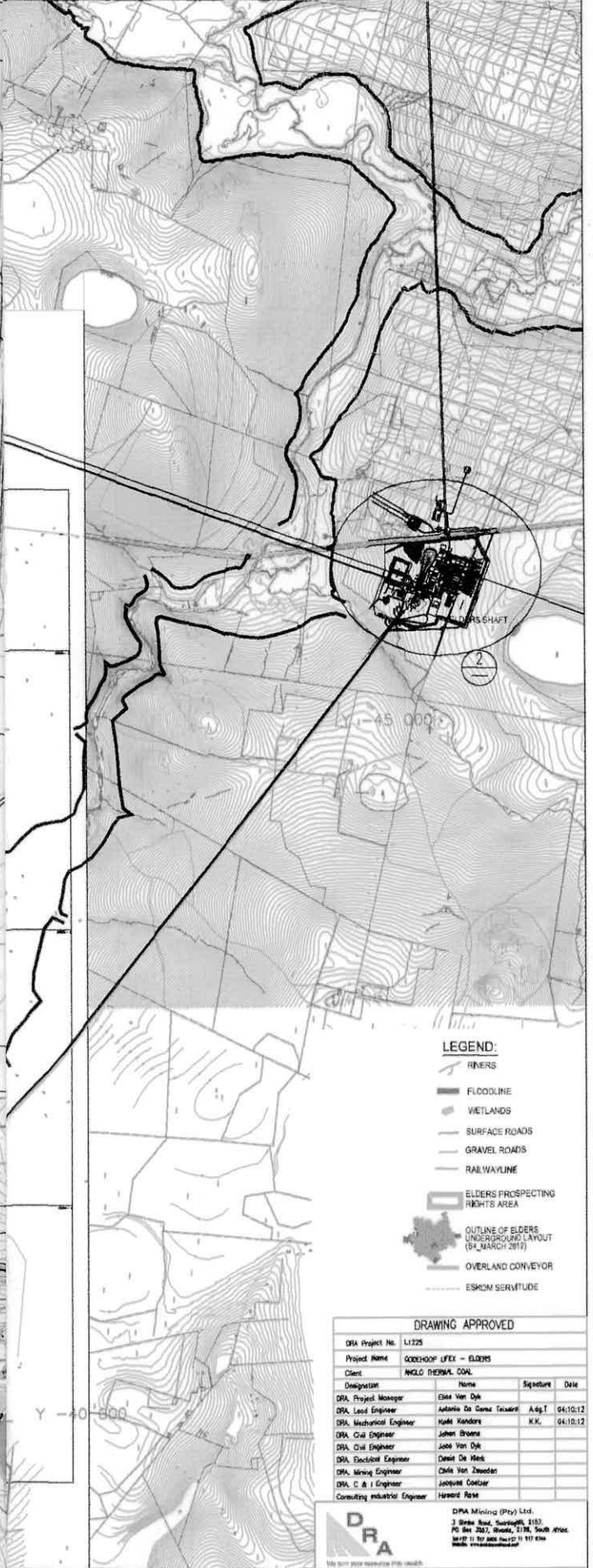
**Proposed Goedehoop Colliery – Elders
project Conveyor Belt**



DETAIL 1
SCALE 1:5000



DETAIL 3
SCALE 1:2500



LEGEND:

- RIVERS
- FLOODLINE
- WETLANDS
- SURFACE ROADS
- GRAVEL ROADS
- RAILWAYLINE
- ELDERS PROSPECTING RIGHT'S AREA
- OUTLINE OF ELDERS UNDERGROUND LAYOUT (04 MARCH 2017)
- OVERLAND CONVEYOR
- ESKOM SERVITUDE

DRAWING APPROVED

DRA Project No. L1725			
Project Name GOEDEHOOP LFEK - ELDERS			
Client ANGLO THERMAL COAL			
Designer	Name	Signature	Date
DRA Project Manager	Elize Van Dyk		
DRA Lead Engineer	Judith De Camo Tseane	A.G.T.	04/10/12
DRA Mechanical Engineer	Ngile Khandor	K.K.	04/10/12
DRA Civil Engineer	John Brown		
DRA Civil Engineer	João Van Dyk		
DRA Electrical Engineer	Daniël De Mend		
DRA Mining Engineer	Chloe Van Zandvoort		
DRA C. & I. Engineer	Jacques Coetzee		
Consulting Industrial Engineer	Harold Rose		

DRA
 DRA Mining (Pty) Ltd.
 3 Brika Road, Sunninghill, 1117.
 PO Box 2827, Sandton, 2146, South Africa.
 Tel: 011 797 4000 Fax: 011 797 4001
 www.dra.co.za

APPROVED BY	_____
DESIGNED BY	_____
NAME	SIGNATURE
STRUC. CALCUL. FILE NO.	REG. NO.
PROJECT	DATE
DESIGNED & APPROVED IN ACCORDANCE WITH AA SPEC 114001	
MECHANICAL ENGINEERING	

American Thermal Coal

CLIENT: ANGLO THERMAL COAL
 COMPANY: GOEDEHOOP COLLIERY
 PROJECT AREA: ELDERS PRE-FEASIBILITY STUDY - 0295
 LOCATION: SURFACE
 JOB: INFRASTRUCTURE
 TITLE: OVERALL PLAN OVERLAND CONV. ELDERS INFRASTRUCTURE TO EXISTING GOEDEHOOP

DRAWING No. 0295-0144-MED-0029

COPYRIGHT SCALE: 1:5000 ORIGINAL ORG. SIZE: AO SHEET 1 OF 1

REV. H

