



BACKGROUND INFORMATION DOCUMENT

MINING RIGHT APPLICATION FOR THE PROPOSED THABAMETSI COAL MINE

LEPHALALE LOCAL MUNICIPALITY, LIMPOPO PROVINCE, SOUTH AFRICA

DMR Reference Number: LP30/5/1/2/2/10013MR

Purpose of this Document

This document has been prepared by Digby Wells Environmental (Digby Wells) on behalf of Exxaro Coal (Pty) Ltd (Exxaro) to inform Interested and Affected Parties (I&APs) of Exxaro's Mining Right Application (MRA) submitted to the Department of Mineral Resources (DMR), Limpopo in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) for the proposed *Thabametsi Coal Mine (Thabametsi Project)* which is located approximately 25 km west of the town of Lephalale within the Waterberg Magisterial District in the Lephalale Local Municipality, Limpopo Province, South Africa.

The purpose of this Background Information Document (BID) is to:

- Provide relevant information pertaining to the Thabametsi Project;
- Advise I&APs of the Environmental Impact Assessment (EIA) process and other legal processes to be followed;
- Notify and consult on the specialist studies that will be undertaken as part of the EIA process;
- Allow I&APs to share valuable information pertaining to the potential impacts associated with the proposed development and ways in which the applicant can minimise and/or avoid the negative impacts and optimise positive impacts associated with the project; and
- Commence with a holistic public participation process (PPP) with the objective to gather and record issues, comments and concerns raised by I&APs and which will be recorded in the Comments and Response Report to form part of the EIA process.

To ensure that you receive further documentation and that your comments and issues are considered, please complete the attached comment and registration sheet. Please ensure your registration form reaches us by **17 September 2012** in order to register you as an I&AP on the Thabametsi Project.

For any further queries, please contact the public participation office as per contact details below:

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BACKGROUND AND PROJECT MOTIVATION

Exxaro is one of the largest suppliers of coal to Eskom for power generation and producer of metallurgical coals. With the current energy crisis being experienced in South Africa, Exxaro has mines and reserves that are well positioned to meet additional coal needs for power generation. Much focus is being placed on expansion in the Waterberg Coalfield, which accounts for the major proportion of South Africa's coal reserves and where Exxaro operates the existing Grootegeluk Coal Mine ("Grootegeluk").

In view of the above, Exxaro is currently investigating the feasibility of developing a combined opencast and underground coal mine, to be known as the Thabametsi Coal Mine (Thabametsi Project). The Thabametsi Project is an undeveloped coal resource in the Waterberg Coalfield and will be developed to supply coal to a base-load independent power producer (IPP). The Thabametsi Project is expected to reach first coal production by 2016/17 and the rate of expansion of the mine will be dependant on inter alia, the Waterberg IPP, rail expansions and water supply development schedule. The main objectives of the project are to:

- Mine coal using opencast and underground mining techniques;
- Beneficiate and transport the coal via conveyor belt to a dedicated IPP coal-fired power station also to be developed by Exxaro north of the Thabametsi Project.

**Please note that a separate EIA process is being undertaken by Savannah Environmental (Pty) Ltd for the proposed development of Exxaro's IPP coal-fired power station.*

A Prospecting Right with reference number: LP30/5/1/1/2/907PR was granted to Exxaro by the DMR on 25 April 2007 in terms of Section 17(1) of the MPRDA for a total area of 5 422.91 ha. In April 2012 a MRA, as required in terms of Section 23 (a), (b) and (c) read together with Regulation 11(1)(g) of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), was submitted to the Department of Mineral Resources (DMR), Limpopo for the Thabametsi Project in respect of the following farm properties:

- Zaagput 307LQ;
- Van der Waltspan 310LQ;
- Mc Cabesvley 311LQ;
- Jackalsvley 309LQ; and
- Vaalpensloop 313LQ.

The MRA was accepted by the DMR as per signed acceptance letter dated 03 August 2012. To comply with the requirements of Section 39 of the MPRDA, an EIA will be undertaken for the proposed project.

A Draft Scoping Report will be compiled for submission to the DMR by no later than 02 September 2012. This report will provide details on the consultation process that has been undertaken thus far for the proposed project; current state of the environment; the methodology for conducting the EIA process; and potential environmental impacts that could occur during various project phases. The Scoping Report will be used as a guide for compilation of the EIA Report (EIAR) and the Environmental Management Programme (EMPr).



LOCAL SETTING

The Thabametsi Project will be an opencast and underground mining operation to be located approximately directly west and northwest of the existing Grootegeluk Coal Mine (Plan 1).

Marapong and Onverwacht are the closest towns to the project. There will be no shared facilities or infrastructure between the Grootegeluk Coal Mine and the Thabametsi Project.

DESCRIPTION OF THE MINING ACTIVITIES

It is proposed that the initial mining activities will start within a year after the MRA has been granted by the DMR. The development of the mine (construction and preparation) will be done over a two-year period before the start of mining activities. Production of coal will start one year after the initial mining of the box-cut has commenced.

The mine will be developed in a phased approach, starting with the initial development of the main pit in 2014/2015 and ramping up gradually to full production of the main pit, mini pit and the underground sections around 2025. Infrastructure will be developed as the various sections are phased in starting with very limited infrastructure for the first five years.

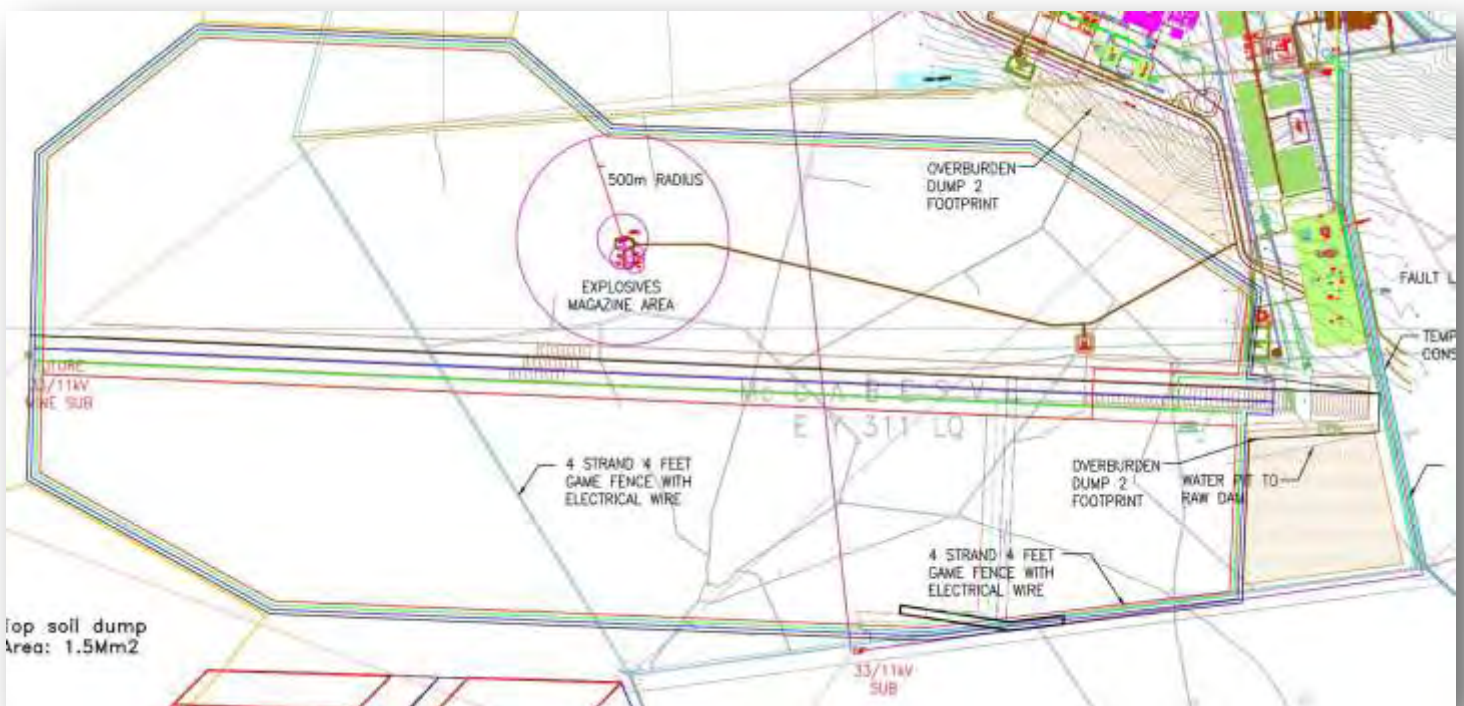









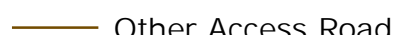

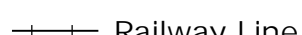










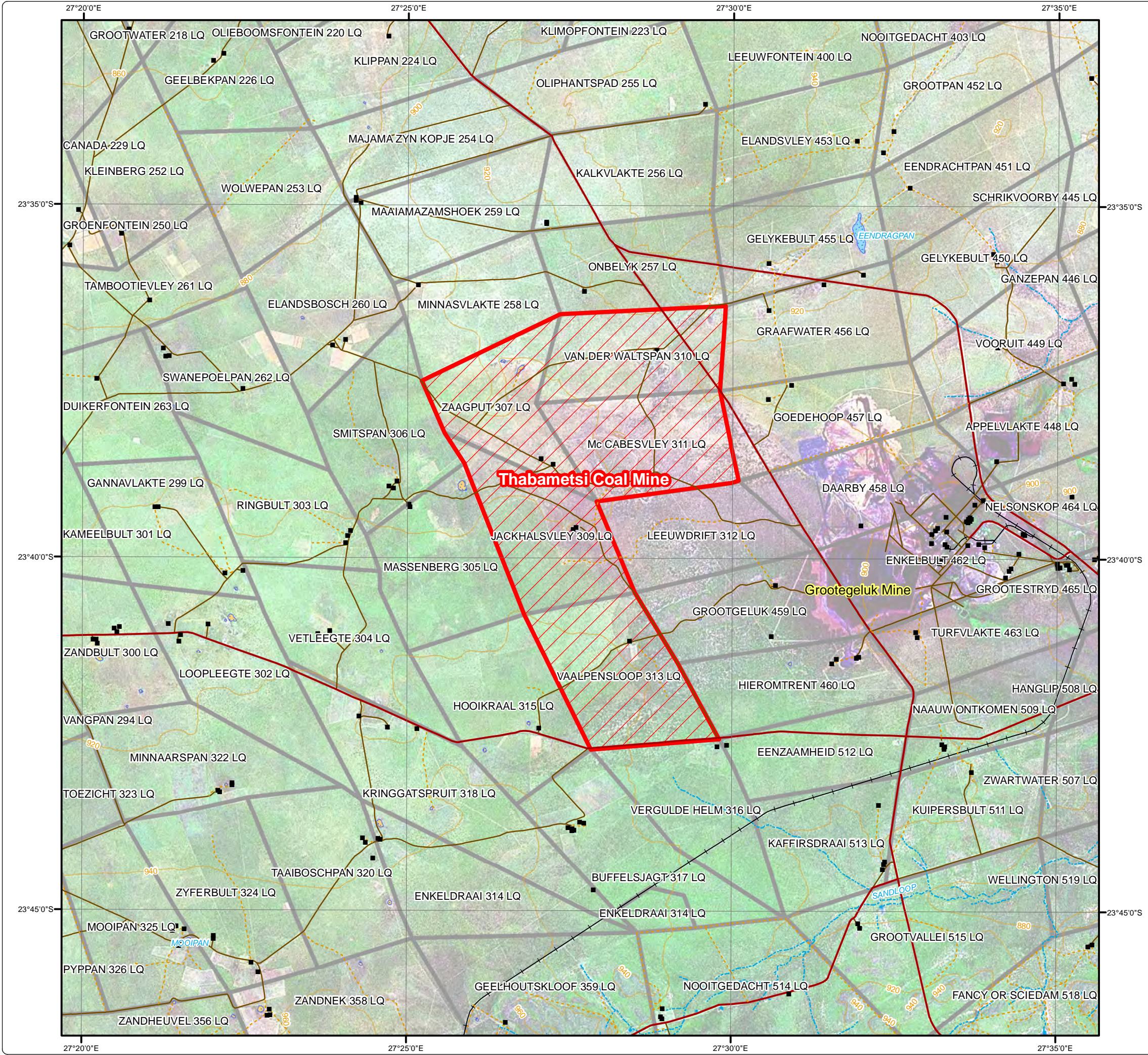
Figure 1: Main Mine Pit plan

Thabametsi Coal Mine

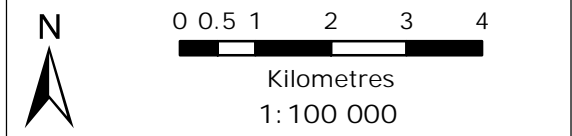
Local Setting

Legend

-  Project Area
-  City
-  Major Town
-  Secondary Town
-  Other Town
-  Settlement
-  House
-  Arterial Route
-  Main Road
-  Other Access Road
-  Tracks & Footpaths
-  Railway Line
-  Perennial Stream
-  Non-Perennial Stream
-  Contour Line
-  Dam / Lake
-  Wetland
-  Non-Perennial Pan
-  Perennial Pan
-  Farm Boundaries



Projection: Transverse Mercator Ref #: anp.EXX564.201206.097
 Datum: Hartebeesthoek 1994 Revision Number: 1
 Central Meridian: 27°E Date: 15/06/2012





Mining method

The operation will use the following mining methods to extract the resources required:

1. Open pit using bench mining technique

The main open pit will be established on the farms Mc Cabesvley 311 LQ, advancing onto Zaagbult 307 LQ and towards the later years of mining on the farm Van der Waltspan 310 LQ. Exxaro proposes that four benches will be established, of which two overburden and two coal benches. The maximum bench height will be approximately 30 m. The overburden bench #1 will be established if the total overburden thickens exceeds 30 m. The stripping operation will remove the topsoil and subsoil will expose the hard overburden of the next cut. The continuity of this process is essential in order to ensure that sufficient workroom is maintained.

The initial topsoil and subsoil will be hauled to a designated area and stored until it can be used for rehabilitation. The hard overburden will be drilled and blasted. The hard overburden and plant discard material will also be hauled to a designed dumping area during the initial state. When a steady state is reached, all waste materials will be backfilled and rehabilitation will commence as part of the backfilling process.

Once the overburden has been removed, the Run of Mine (ROM) coal will be transferred to the plant by means of a load and haul operation initially followed by an in-pit crushing and conveying system in future. For this purpose, the main coal beneficiation complex and discard dump has been located adjacent to the main pit, mostly in the vicinity of the farm Van der Waltspan 310 LQ. The main open pit, coal beneficiation plant and associated discard disposal facilities will be known as the Northern Mine Complex.

To summarise, the open pit mining process involves various steps and the diagram below illustrates the actions involved, classified sequentially as follows:

- Strip topsoil;
- Remove sub-soil;
- Drill and blast hard overburden;
- Load and haul the hard overburden;
- Clean the top of the coal;
- Drill and blast coal;
- Load and haul coal; and
- Backfill all waste according to the backfilling procedure.

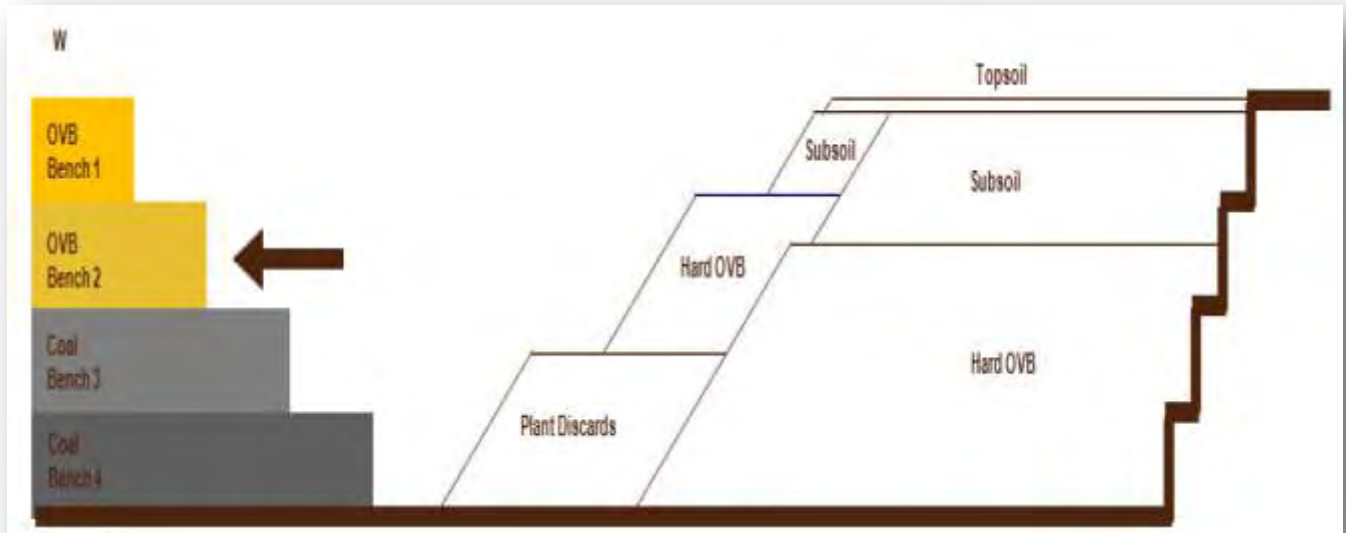


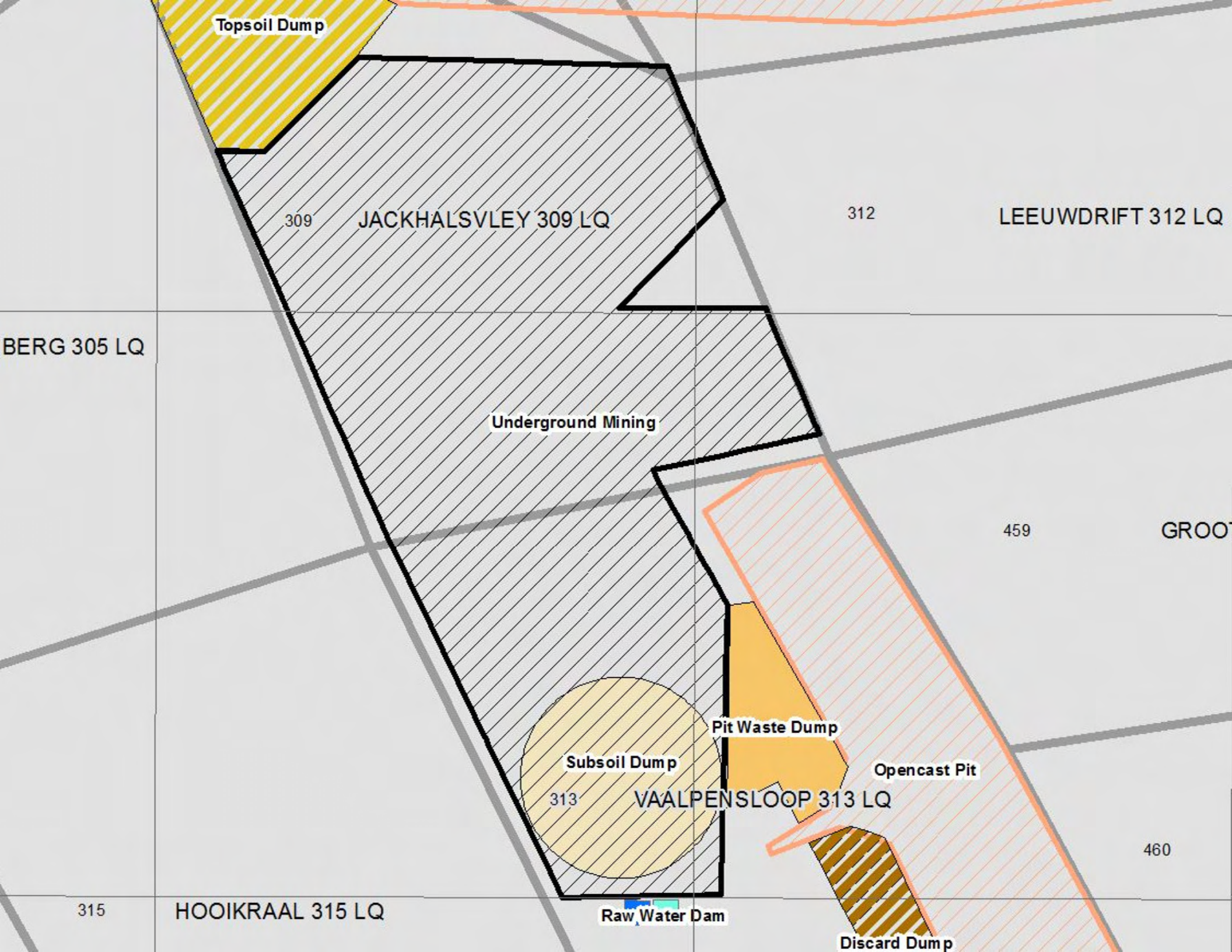
Figure 2: The proposed bench mining technique to be followed for the Thabametsi Project

2. Underground board and pillar method

Underground mining will be located on the farms Jackalsvley 309 LQ and Vaalpensloop 313 LG and will be known as the Southern Mine Complex. The underground board and pillar method with stooping, i.e. final pillar extraction technique will be used. The access will be achieved by a box-cut, or mini-pit, in the lowest depth of the coal resource on the south-eastern corner of the farm Vaalpensloop 313 LQ. Coal from the mini-pit will be hauled to a crushing and screening plant from where it will be fed into the washing plant for further beneficiation. A plant discard area has been designed for the Southern Mine Complex. Two main developments will be established from the mini-pit, through a north-south running dyke which giving access to each mining zone. The main development in each mining zone will establish a single secondary development. After the development is completed, production panels will be mined, using the return stooping. The necessary developments will also be stooped in each zone, which will be sealed after the total extraction of the zone. Coal will be mined using a Continuous Miner (CM). The roof of the mine will be supported using a roof-bolting machine after each cut by the CM. ROM coal will be hauled by shuttle cars to the feeder breaker, which will doze the ROM coal onto a conveyor belt and to the crushing and screening plant. This material will then be fed to the washing plant for beneficiation.

The below figure (3) illustrate the following mining process involved, classified sequentially as follows:

- Cut coal using the CM and transported to the feeder by the shuttle cars;
- Doze coal onto the conveyor belt using feeder-breaker and transport ROM to the beneficiation plant via conveyor belt;
- Store coal on product stockpiles; and
- Transport product to the IPP power station via rail.



Topsoil Dump

309

JACKHALSVLEY 309 LQ

312

LEEUWDRIFT 312 LQ

BERG 305 LQ

Underground Mining

459

GROO

Subsoil Dump

313

VAALPENSLOOP 313 LQ

Pit Waste Dump

Opencast Pit

460

315

HOOIKRAAL 315 LQ

Raw Water Dam

Discard Dump



PROJECT TIMEFRAMES AND INFRASTRUCTURE REQUIREMENTS

The production is planned to start in 2017 with ROM being produced from the mining development in the main pit which will be eventually transported to Grootegeluk for beneficiation until 2019. The Thabametsi Project will have a Life of Mine (LoM) of approximately 40 years.

From 2019, the coal necessary for the IPP power station will be produced and transported via conveyor belt to the IPP site which is to be located on the farms Onbelyk 257 LQ, Gelykebult 455 LQ, Eendrachtspan 451 LQ, Gelykebult 450 LQ and Vooruit 449 LQ. The power station will have a capacity of up to 1 200 MW, to be developed in two phases of 600 MW each.

Coal products will also be beneficiated for other domestic and export port markets and the timing thereof is dependent on the availability of water supply.

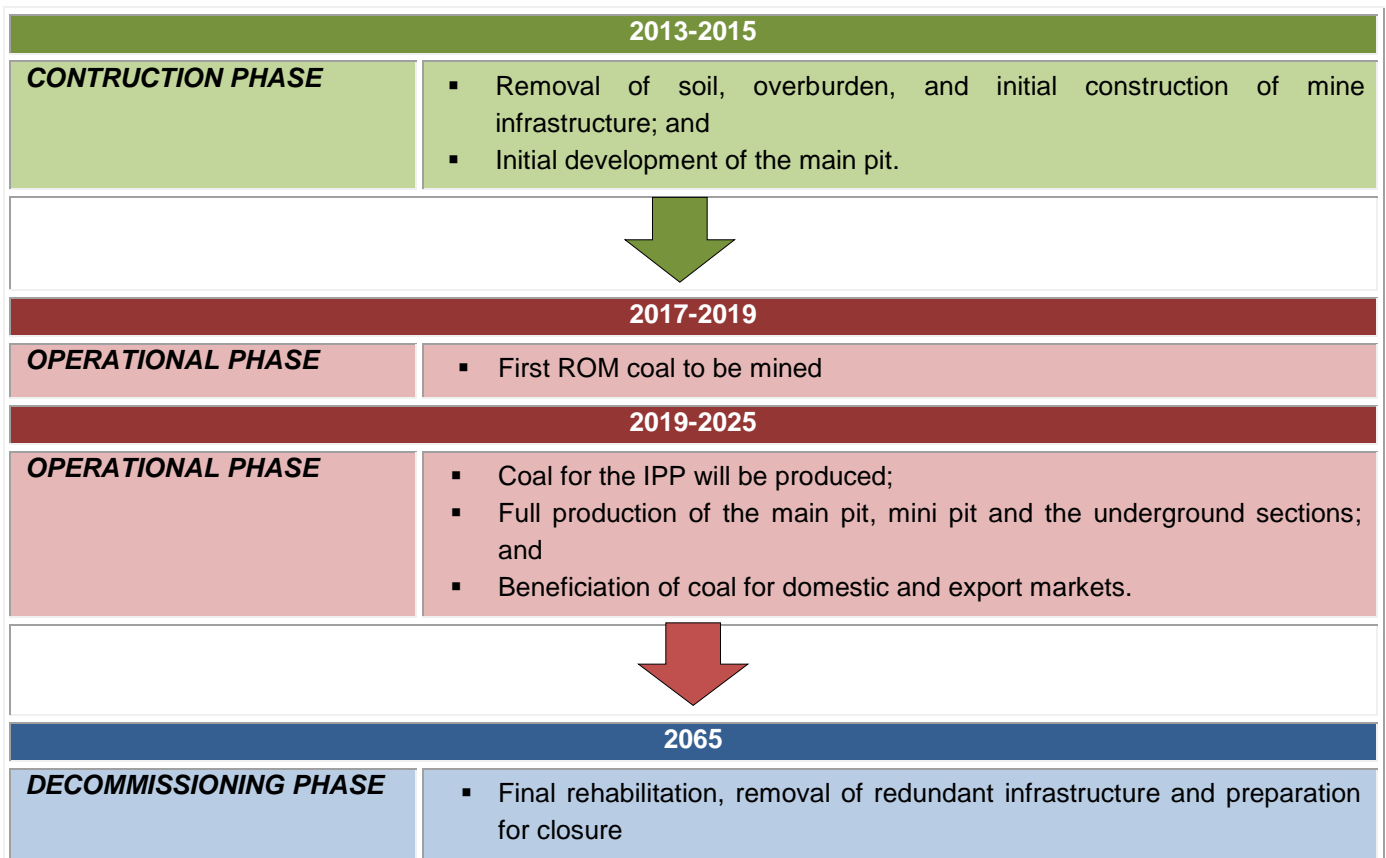


Figure 3: Proposed Project Timeframe

The following infrastructure will be required for the Thabametsi Project:

General

In addition to the general mining infrastructure rail and road access will be required to and from the mine as well as electricity supply (power lines and a sub-stations) and water supply (reservoirs, pipelines and booster pumps).



Water supply

The existing supply of raw water to the area is a constraint. Therefore large scale beneficiation of coal is only likely to commence only once Phase 2 of the Mokolo and Crocodile (West) Augmentation Project (MCWAP-2) is implemented by the Department of Water Affairs (DWA). It is expected that this project will be operational by 2018/19.

Rail transport

Transnet has recently embarked on a R300 billion expansion strategy which is to be implemented over the next seven years which includes the expansion of the rail capacity from the Waterberg area to enable the raiing of the beneficiated coal. From 2021 both Power Station Coal (PSC) and Semi-Soft Coking Coal (SSCC) will be produced. The ROM suitable for PSC and SSCC will be put on rail to the respective clients. Underground mining will start in 2022 producing Metallurgical Coal (Met Coal) ROM which will be transported to the Southern Mine Complex plant for beneficiation.

LEGISLATIVE REQUIREMENTS

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

A Mining Right Application has been submitted and acknowledged by the DMR in terms of the MPRDA. The MPRDA requires that an EIA process be conducted and a Draft Scoping Report will be submitted by 02 September 2012. The environmental reports to be compiled throughout the EIA process will be made available to the public for review before submission to the relevant authority. Authorisation under the following legislation will be required before the commencement of the proposed project:

- MPRDA for the Mining Right Application;
- National Environmental Management Act, 1998 (Act No.107 of 1998) as amended (NEMA) for the Environmental Authorisation;
- National Water Act, 1998 (Act No. 36 of 1998) (NWA) for a Water Use License;
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) for a Waste Management License

Please be advised that the environmental applications for the listed legislative processes will be applied for in due course.

All registered I&APs will be notified of the submissions and the applicable environmental processes to be followed. It is intended that the public participation process (PPP) for the NEMA and NEM:WA applications will run concurrently. The NWA application will need to be undertaken once the EIA for the MRA has been completed.

Who is an Interested and Affected Party (I&AP)?

- *Any person, group of persons or organisation who may be interested in or affected by a proposed activity; and*
- *Any organ of state that may have jurisdiction over any aspect of the activity.*



SPECIALIST STUDIES

Digby Wells Environmental has been appointed as the independent environmental consultant by Exxaro to undertake some of the required specialist studies in fulfilment of the requirements stipulated in terms of Section 39 of the MPRDA.

Please be advised that various environmental consultants have been appointed by Exxaro to conduct relevant studies required for the Thabametsi Project. Kindly refer to the list below for further details pertaining to the specialised tasks to be undertaken by each of the appointed consultants. A holistic EIA process and PPP will be undertaken to ensure inclusion of all the specialists' studies and to gather inputs and comments from the public.

Table 1: Specialist studies to be undertaken

Specialist study	Responsibility
Geological assessment	Exxaro Resources Limited
Soil, land capability and land use assessment	Viljoen & Associates
Surface water assessment	SRK
Groundwater assessment	To be confirmed in due course
Flora and Fauna assessment	Digby Wells Environmental
Wetland delineation and ecological assessment	Digby Wells Environmental
Air quality impact assessment	Airshed Planning Professionals
Noise and vibration assessment	Digby Wells Environmental
Traffic impact assessment	To be confirmed in due course
Visual impact assessment	Digby Wells Environmental
Heritage impact assessment	Digby Wells Environmental
Rehabilitation plan and closure costing	Golder Associates Africa
Socio-economic sustainability assessment	Golder Associates Africa
Public Participation Process	Digby Wells Environmental

PUBLIC PARTICIPATION PROCESS

The PPP forms an integral part of the EIA Process. It provides the opportunity for I&APs to participate in a meaningful and constructive manner and to raise issues, comments and concerns in respect of the proposed mining operation for better decision-making. Issues identified will be used to inform and guide specialist environmental and social studies which must be undertaken as part of the process.

The comments raised by I&APs will be considered and incorporated into the environmental documents and collated into the Comments and Response Report which will be updated throughout the EIA process.



The EIA process will be conducted in phases, as outlined below.

Scoping phase (August to October 2012)

The first phase of an EIA is the scoping phase, which is conducted to gain an understanding of the potential environmental issues that are relevant to the project, and to determine where further information is required, in the scope of specialist studies and investigations required.

Activities involved in the scoping phase include:

- Notifications to landowners and people in control of affected properties (*Completed*);
- Submission of MRA and Social and Labour Plan (SLP) to the DMR (*Completed*);
- Acceptance of MRA application by DMR (*Completed*);
- Consultation with relevant authorities for the environmental processes to agree on process and study requirements (*On-going*);
- Notification to I&APs in the project area (letters, emails, advertisements in selected local and regional newspapers and on-site notices) (*Completed*);
- Distribution of this background information document and an invitation to contribute to the EIA process;
- Compilation of a Draft Scoping Report including the Consultation Report as per DMR requirements;
- Review of Draft Scoping Report and stakeholder meetings to solicit comment on the Draft Scoping Report;
- Compilation of the Final Scoping Report and update of Consultation Report; and
- Submission of a Final Scoping Report to DMR, capturing all issues raised and to be considered during the impact assessment phase.

Impact Assessment Phase (October 2012 – January 2013)

The second phase of the EIA is the full impact assessment phase, which will include:

- Continuation of specialist studies focused on outcomes of the scoping phase and issues raised by stakeholders;
- Compilation of a Draft EIA Report and EMPr, including Consultation Report, indicating the significance of positive and negative impacts and measures to enhance positive impacts and to reduce or avoid negative impacts;
- Review of draft reports and stakeholder meetings to solicit comment on the draft reports;
- Stakeholder meeting in the project area to present the findings of the EIA for stakeholder comment;
- Compilation of Final EIA Report and EMPr and update the Consultation Report;
- Submission of the EIA Report and EMPr to the DMR; and
- Authority review and decision to grant or refuse the project.

Appeal phase (March – April 2013)

Should the DMR decide to grant authorisation for the project, stakeholders will be advised of the decision as well as the opportunity to appeal the decision within 12 days of the issuing of the environmental



authorisation. Intentions to appeal must be submitted within 20 days of the date of the issuing of the authorisation. The applicant also has the right to lodge an appeal in the event that the authorities do not grant authorisation for the project to proceed.

Please note that the above timeframes are for the MPRDA process to be followed.

DRAFT SCOPING REPORT (DSR) AVAILABLE FOR PUBLIC REVIEW AND AN INVITATION TO INFORMATION SHARING MEETING

The Draft Scoping Report (DSR) for the proposed Thabametsi Project in terms of the MPRDA will be available for public review from **03 September 2012 until 03 October 2012**. The documents will be made available at public places accessible to all. Further details on the availability of the DSR will follow in notification letters to be distributed in September 2012.

I&APs are invited to attend any of the following public information sharing meeting.

Date and time	Venue
Tuesday, 18 September 2012	Mogol Club, Lephalale <i>(Open session from 10:00 -11:30 – formal meeting starts at 12:00)</i>

The contents of the Draft Scoping Report will be presented and stakeholders will have the opportunity to provide their comments and concerns. Please note that at this meeting, information pertaining to the IPP project undertaken by Savannah Environmental will be presented in order to integrate information on both the projects. Please register for the public meetings by contacting the public participation office before 13 September 2012 and/or to complete the registration/comment sheet.

You are requested to comment on the DSR in any of the following ways:

- Completing a comment sheet;
- Writing a letter, or producing additional written submissions;
- Sending an email or phoning the public participation office; or
- Attending the public meeting.

Thank you for taking the time to read this document. Your comments are important to us – please contact us should you need more information.