

Environmental Impact Assessment and Waste Management License Application for the proposed Medupi Power Station Flue Gas Desulphurisation

DEA Ref: 14/12/16/3/3/3/110

UPDATED BACKGROUND INFORMATION DOCUMENT

March 2015

This updated Background Information Document (BID) provides Interested and Affected Parties (I&APs) with information on the Environmental Impact Assessment (EIA), Waste Management License Application (WMLA) and Water Use License Application (WULA) being undertaken by Zitholele Consulting for the proposed Flue Gas Desulphurization retrofitting technology at Medupi Power Station. This document is intended to provide Interested and Affected Parties (I&APs) with:

- A concise overview of the proposed Medupi Power Station Flue Gas Desulfurization (FGD) Retrofit Project;
- Manner in which I&APs can become involved and provide input into the Environmental Authorisation (EA) Process; and
- Status quo of the various EA Processes including the EIA, WMLA and WULA Processes.

This updated BID also provides I&APs with the opportunity to:

- Register as a stakeholder in the public participation process; and
- Submit comment on and/or raise issues of concerns regarding the proposed project.

The purpose of an EIA is to identify and evaluate potential impacts, to recommend measures to avoid or reduce negative impacts and to enhance positive impacts. The licensing of waste management activities through a WMLA is the primary means by which these activities are regulated. The decision-making authority for both the EIA and WML Application is the Department of Environmental Affairs (DEA). The licensing authority for the WULA is the Department of Water and Sanitation (DWS)

Should you register as a stakeholder, you will be included in the stakeholder database and receive further documents for review and comment. **To raise your concerns and to submit comments, complete the enclosed registration sheet, write a letter, call or email the public participation office (contact details provided on the registration sheet included).**

BACKGROUND

Eskom Holdings SOC Ltd (hereinafter Eskom), South Africa's power utility, is tasked with providing electricity in an efficient and sustainable manner. The power utility supplies the majority of South Africa's electricity as well as approximately 45% of the electricity used in Africa.

The activities carried out as part of the electricity generation and distribution processes often generate wastes in various forms (e.g. exhaust flue gases from coal fuelled power stations). The proposed Medupi Power Station Flue Gas Desulphurisation (FDG) Retrofit Project is intended to remove up to 95% of the Sulphur Dioxide (SO₂) from the exhaust flue gases released at the Medupi Power Station.

The proposed Medupi Power Station FGD Project will consist of the retrofit of FGD technology onto six (6) x 800 megawatt (MW) coal fired steam electric generating units. The proposed FGD Project will also entail the installation of a wet limestone open spray tower FGD system to each of the operating units (absorber). It is anticipated that the proposed FGD will be fully operational within 6 years from the date of commercial operation of the first generating unit. The footprint of the proposed FGD infrastructure will fall within the borders of the Limpopo Province, with the Medupi Power Generation Precinct located approximately 15km west of the town of Lephalale.

NEED FOR THE PROPOSED PROJECT

One of the by-products that are generated by the burning of pulverized coal includes flue gases. In order to comply with the provisions of the National Ambient Air Quality Standards published in Government Gazette 32816 (dated 24 December 2009), a significant reduction in SO₂ emissions is required.

Environmental Authorisation have been granted for the proposed Medupi Power Station and associated infrastructures. However, the current project will focus on the FGD retrofit which necessitates additional infrastructure within the Medupi Power Station footprint, and possibly outside of the current footprint.

The proposed FGD will essentially function to abate the gaseous emissions, specifically sulphur dioxide emissions, which are released by the Power Station. Once the FGD has been commissioned, Medupi Power Station will be able to comply with the emission standards.

It is anticipated that the proposed FGD facility (excluding any additional waste disposal facilities) will have a footprint of between 0.5 and 1 hectare, falling within the current Power Station footprint only. The facility will include associated infrastructure components which may consist of:

- Storage/stockpiling, handling and disposal of wastes: gypsum, chemical salts and chemical sludge.
- Storage/stockpiling and handling of limestone.
- Treatment of waste water within a Zero Liquid Discharge (ZLD) system.
- Services including electricity, drainage (incl. dirty water dam) and water supply in the form of power lines, pipelines, and associated infrastructure.
- Access and maintenance roads where applicable.
- Rail siding and associated infrastructure.
- Process and electrical buildings.

All of the abovementioned components, excluding potential waste disposal facilities, will be constructed and operated within the existing Medupi footprint. The Power Station was designed to be "Wet FGD ready" and the FGD infrastructure is accommodated on site.

The waste disposal facility required for the FGD waste streams was initially planned for on-site, however, the required waste disposal facilities are currently under investigation and may be located outside of the Medupi Power Station footprint.

Zitholele Consulting has been appointed by Eskom to carry out the following Environmental Authorisation (EA) Processes for the proposed FGD retrofit project:

- Environmental Impact Assessment (EIA);
- Waste Management License Application (WMLA); and
- Water Use License Application (WULA).
- Subsequent to the initiation of the above processes, the project team identified additional assessments that need to be included for consideration within the environmental authorisation application. Therefore, the following will also form part of the project scope of work:
- Assessment of the aspects and impacts associated with the construction of a railway yard at the Medupi Power Station. Limestone is envisioned to be transported by rail to the Medupi Power Station. The rail yard will be located predominantly within the existing Medupi Power Station footprint.
- Investigation of the feasibility of the alternatives to dispose of the FGD wastes at an on-site or off-site facility/ies. This includes engagement with both the Department of Environmental Affairs and the Department of Water and Sanitation.

The waste classification of the various waste streams has informed the selection of feasible alternatives. The selection of a preferred disposal method will rely on the outcome of discussions with the DEA Waste Directorate.

- Site selection process for one or more Waste Disposal Facilities at which to dispose the wastes that will be generated by the FGD operation. This will entail the identification of, at most, three (3) site alternatives. Each alternative will be assessed by a range of specialists and they will provide sensitivity mapping of the alternative sites. Specialists will workshop the sensitivity map with the client and with Zitholele Consulting to determine an alternative with impacts of the least significance, which are most likely to respond to mitigation and management.
- Conceptual design of the required Waste Disposal Facilities will need to be carried out by appropriate civil and structural engineers. The conceptual designs will be strongly informed and directed by the specialist team working on this project. The conceptual design will need to meet with the requirements of the DEA Waste Directorate as well as with those of the DWS.

Wet FGD as preferred Technology

The preferred technology, Wet FGD, was assessed and selected as an independent investigation to the Environmental Authorisation Process. At the onset of the EA Process, the consultant was advised by Eskom to utilize Wet FGD for the environmental assessment, without allowing for an assessment of alternatives.

The Wet FGD technology was identified as the preferred technology for Medupi Power Station, by means of a techno-economical study, during the design of the Power Station. This was essential in order to ensure that the Power Station was designed to be "Wet FGD ready". This design allows for the spatial requirements of Wet FGD within the Power Station layout. The design negates any requirement for significant changes to the existing infrastructure to accommodate the Wet FGD retrofit.

As an appendix to the Final Scoping Report, a Technology Selection Study Report has been made available to the public for review. While the EA process does not investigate alternatives to Wet FGD, the process will report on the impacts of the Wet FGD on the receiving environment.

Gypsum disposal versus commercial value

It should be noted that the potential for commercial sale of industrial gypsum from the FGD process has been investigated by Eskom for both the Kusile Power Station and the Medupi Power Station. Market research has indicated that there is a limited opportunity for the reuse of industrial quality gypsum to local users. The quality of the limestone to be used in the Medupi FGD process is unknown, and therefore the gypsum quality has not yet been determined. Limestone sourcing as well as the gypsum market offtake is being investigated by Eskom in parallel and the outcome of this investigation will determine the opportunity for the sale of gypsum. While the marketability of Medupi gypsum may improve over time, the current situation requires that most, if not all, Medupi's gypsum will require disposal. It is in Eskom's best interests to continue exploring alternatives to gypsum disposal. However, at this stage, it is important that the Environmental Authorisation Process consider the worst case scenario when addressing the requirements for the possible disposal of gypsum at an appropriately engineered disposal facility.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

The proposed FGD facility and associated infrastructure require an Environmental Impact Assessment (EIA) in terms of the NEMA and the amended EIA regulations (Government Notice R.543 to 546, published in June 2010). The Department of Environmental Affairs (DEA) has been identified as the Competent Authority.

As per Government Notice R.543 of June 2010, Chapter 2, Regulation 6, the competent authority must consult with every government organ that administers a law relating to a matter affecting the environment relevant to that application for an environmental authorisation when considering an application.

Therefore, the DWS, the Limpopo Department of Economic Development, Environment and Tourism, Waterberg District Municipality, Roads Agency Limpopo and the Lephalale Local Municipality are commenting authorities in this process.

This process includes Scoping and Environmental Impact Report (S&EIR) Phases, which are applicable to all projects likely to have significant environmental impacts due to their nature or extent, activities associated with potentially high levels of environmental degradation, or activities for which the impacts cannot be easily predicted.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA) (CONTINUED)

In terms of Government Notice R.545 of 2010, the following listed activities require that a S&EIR be undertaken and are applicable to this proposed project:

- **Activity 3:** The construction of facilities or infrastructure for the storage, or for the storage and handling, of lime and

limestone as an input into the WWTP and FGD process, respectively. The lime and limestone will be stored at a volume of more than 500 cubic meters at any one time. Storage of waste materials from the FGD process will similarly require authorization under Activity 3.

- **Activity 6:** The construction of facilities or infrastructure for the bulk transportation of waste materials using conveyors with a throughput capacity of more than 50 tons per day.
- **Activity 11:** The construction of a rail yard for purposes of transport of products to the Power Station and waste products from the Power Station.
- **Activity 15:** The physical alteration of undeveloped, vacant, or derelict land for purposes of a rail yard and associated infrastructure.



NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT (NEM:WA)

With the proclamation of the National Environmental Management Waste Act (NEM: WA), No 59 of 2008, all waste related activities previously listed under the National Environmental Management Act (NEMA), No 107 of 1998 have been repealed and are now listed under the NEM:WA.

In terms of Government Notice R.718, **Category B** the following activities require authorisation:

Activity 1: The storage, including temporary storage, of hazardous waste in lagoons. This activity will be triggered should the sludge and/or salts require separate disposal and not be co-disposed of at the Ash Disposal Facility.

Activity 5: The treatment of sludge in lagoons. This activity will only be triggered should the preferred option of co-disposal not be supported by the waste classification assessment.

Activity 7: The disposal of any quantity of gypsum to the existing Ash Disposal Facility.

Activity 10: The construction of facilities for activities listed in this schedule.

In terms of Government Notice R.718, **Category C** the following activities require authorisation:

Activity 2: The storage, including temporary storage, of hazardous waste such as gypsum, salts and sludge from the FGD process prior to disposal on or off-site. The combined storage of hazardous waste will be more than 35m³ at any one time.

As described in the Regulations “a person who wishes to commence, undertake or conduct an activity listed under this Category, must conduct an environmental impact assessment process, as stipulated in the environmental impact assessment regulations made under Section 24(5) of the NEMA as part of a waste management license application”.

Therefore the proposed development requires the submission of a Waste Management License application as well as a Scoping and Environmental Impact Report (S&EIR) to the DEA.

WATER USE LICENSE APPLICATION (WULA)

The preferred technology was identified by the client prior to the initiation of the EA process, and was carried out through a technology feasibility study. The EA processes therefore address the project with Wet FGD as the preferred technology alternative. The water required for the operation of Wet FGD will be applied for within a Water Use License Application. The client has been engaging with the DWS in this regard. The DWS, as the custodian of the national water resources, has indicated that allocation of water can be supplied to Medupi Power Station from the Mokoilo Crocodile Water Augmentation Project (MCWAP)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

An Environmental Impact Assessment (EIA) is a planning and decision-making tool undertaken in terms of the National Environmental Management Act (NEMA), Act No 107 of 1998, as amended. An EIA is a management tool that helps to identify and mitigate any potential impacts that a new development might generate on the receiving environment. The EIA takes place prior to the construction of the development.

TECHNICAL AND PUBLIC PARTICIPATION PROCESSES

An EIA has two parallel and integrated processes namely, a **technical** and a **public participation** process.

The **technical process** investigates "hard" information: facts based on scientific and technical studies, statistics or technical data. It identifies the potential negative and positive consequences of a proposed project or development at an early stage and recommends ways to enhance positive impacts and to avoid, reduce or mitigate negative impacts.

The EIA regulations require that an Environmental Management Programme (EMPr) be developed. The EMPr provides recommendations on how to operate and implement the project. The provisions of the EMPr, once approved by the competent authority, are legally binding on the developer and its contractors.

Public participation ensures that the EIA process is fair, open and transparent. It also provides stakeholders with sufficient information and gives them opportunity to contribute to the process by reviewing and commenting on the information.

The public participation process is designed to provide sufficient and accessible information to Interested and Affected Parties (I&APs) in an objective manner to assist them to:

- Raise issues of concern and make suggestions for alternatives and enhanced benefits;
- Contribute local knowledge;
- Verify that their issues have been captured and considered by the technical investigations;
- Comment on the findings of the EIA.

PHASES IN AN EIA

SCOPING PHASE

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 form of specialist studies/investigations.

The Scoping Report and Plan of Study for the EIA are submitted to the Department of Environmental Affairs (DEA) for review and approval of the proposed approach to the detailed investigation required in the next phase.

Key activities involved in the Scoping Phase include:

- Meetings with authorities to agree on process and study requirements;

- Initial public and landowner notification;
- Distribution of a DSR, including CRR for public comment;
- Convening a stakeholder meeting for the Scoping Phase;
- Distribution of the FSR for comments;
- Submission of a Final Scoping Report (FSR), including the Plan of Study for the EIA to the DEA;
- Approval of the FSR and supporting documents by DEA, at which time the project moves into the Impact Assessment Phase.

IMPACT ASSESSMENT PHASE

The **second phase** is the Impact Assessment Phase, which entails undertaking various specialist studies and compiling a Draft EIR.

As part of the assessment, an Environmental Management Programme (EMPr) will be submitted to the Department of Environmental Affairs (DEA) for their approval. By following the EMPr, Eskom and its contractors will ensure compliance to environmental regulations during the planning, construction, operation and decommissioning (if applicable) phases.

The specialist studies that have already been confirmed for the Impact Assessment Phase are:

- Waste Classification;
- Social Impact Assessment;
- Ecological Assessment for the rail yard area;
- Air Quality Assessment.

Additional assessments will be required for purposes of the site selection for potential waste disposal facilities. These studies will be confirmed as soon as the consultant has been appointed for this additional scope of work.

Key activities in the Impact Assessment Phase will include:

- Specialist studies focused on outcomes of the Scoping Phase and issues raised by stakeholders;
- Progress feedback to stakeholders;
- Compilation of a Draft EIR and EMPr indicating the potential positive and negative impacts and measures to enhance positive impacts and to reduce or avoid negative impacts;
- Environmental Impact Statement, highlighting the preferred alternative/s and reasons therefor;
- Distribution of the Draft EIR and EMPr, including Issues and Responses Report, to the public for comment;
- A stakeholder meeting in the project area to present a summary of the findings of the EIR for stakeholder comment;
- Distribution of the Final EIR and EMPr for comment; and
- Submission of the Final EIR and EMPr for DEA decision making.

DECISION-MAKING (ENVIRONMENTAL AUTHORISATION)

A decision on the applications for Environmental Authorisation, Waste Management License and Water Use License will be received from the relevant competent authority. Within legislated timeframes, Zitholele Consulting is responsible for notifying the registered I&APs of each of these decisions. Stakeholders will be notified of the DEA's decision and of the opportunity to, and process for, appeal.

Your comments are important

The purpose of an Environmental Impact Assessment is to provide the decision-making authority with sufficient information on which to base their decision to grant or refuse an Environmental Authorisation and if granted, to define conditions for the development. The contributions made by stakeholders from all sectors of society will ensure informed decision-making.

You are invited to participate freely and to submit any comments or information you feel may be useful to the EIA process. Registered interested and affected parties are entitled to comment, in writing, on all written submissions to the competent authority (Department of Environmental Affairs) and to bring to the attention of the competent authority, any issues which the party believes may be of significance to the consideration of the application.

Zitholele Consulting contact details
PO Box 6002, Halfway House, 1685
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Public Participation Office:
Nicolene Venter / Tricia Njapha
Email: publicprocess@zitholele.co.za

Technical Enquiries:
Sharon Meyer-Douglas / Bongani Dhlamini
Email: sharonm@zitholele.co.za / bonganid@zitholele.co.za

ZITHOLELE
CONSULTING

06 June 2014

Dear Stakeholder

Environmental Impact Assessment and Waste Management License Application for the proposed Retrofitting of a Flue Gas Desulphurisation (FGD) system at Medupi Power Station (DEA Ref. No.: 14/12/16/3/3/110)

An Integrated Environmental Impact Assessment (EIA) and Waste Water Management License (WML) Application Process are being undertaken for the proposed Retrofitting of a Flue Gas Desulphurisation (FGD) system to the Medupi Power Station. Medupi Power Station is located west of Lephalale, Limpopo Province.

The proposed operation of FGD at Medupi Power Station will produce gypsum, sludge and ash which are to be disposed of in an environmentally responsible manner. Retrofitting of FGD technology will help with the removal of sulfur dioxide from the exhaust flue gases of the Medupi Power Station operations. Each of the six (6) 800MW coal fired steam electric generating units will be retrofitted with FGD technology. Medupi Power Station currently has Environmental Authorisation for the construction of the Power Station and identified associated infrastructure. The Power Station is currently in the last phase of construction.

It is envisaged that the proposed FGD project will include the following components:

- Wastes from the FGD will be stored, handled and then disposed of at the existing ADF with the ash from the power station;
- A conveyor belt for the transportation of waste to the ash disposal facility (ADF); and access and maintenance roads to the site ADF;
- Water treatment will be carried out within a Zero Liquid Discharge plant;
- Water will be abstracted from the existing reservoir for the FGD process;
- Associated infrastructure will be constructed on site.

Zitholele Consulting (Pty) Ltd has been appointed as independent Environmental Assessment Practitioner by Eskom Holding SOC Limited to undertake the EIA, WULA and WML processes.

This letter serves to invite you to register as an Interested and/or Affected Party (I&AP) and to participate in this environmental process. To register as an I&AP, please use the registration and comment sheet enclosed in the Background Information Document. Please return the comment sheet at the latest by 07 July 2014 for this initial public notification process, although submissions and public participation will continue throughout the EIA process.

Kindly send your reply to Nicolene Venter / Bongani Dhlamini at the Public Participation Office – details are provided on the registration and comment sheet. You are also welcome to contact Zitholele Consulting on (011) 207-2060, should you require any additional information at this stage.

Yours sincerely



Nicolene Venter
Snr Public Participation Practitioner

Environmental Impact Assessment and Waste Management License Application for the proposed Medupi Power Station Flue Gas Desulphurisation.

BACKGROUND INFORMATION DOCUMENT

DEA Ref: 14/12/16/3/3/3/110

June 2014

This Background Information Document (BID) provides Interested and Affected Parties (I&APs) with information on the Environmental Impact Assessment (EIA), Waste Management License Application (WMLA) and Water Use License Application (WULA) being undertaken by Zitholele Consulting for the Retrofitting of Flue Gas Desulphurisation facility at Medupi Power Station. This document is aimed at notifying I&APs of the following proposed activities;

This BID also provides Interested and/or Affected Parties (I&APs) with the opportunity to:

- Register as a stakeholder in the public participation process; and
- Comment on the proposed project.

The purpose of an EIA is to identify and evaluate potential impacts, to recommend measures to avoid or reduce negative impacts and to enhance positive impacts. The licensing of waste management activities through a WMLA is the primary means by which these activities are regulated. The decision-making authority for both the EIA and WML Application is the Department of Environmental Affairs (DEA).

Should you register as a stakeholder, you will be included in the stakeholder database and receive further documents for review and comment/s. Your comments will ensure that all issues of concern are incorporated. **To raise your concerns and to submit comments you may have at this stage, complete the enclosed registration sheet, write a letter, call or email the public participation office (contact details below).**

All documents will be available on the internet at www.eskom.co.za/eia and <http://www.zitholele.co.za/eia-for-medupi-fgd>

Public participation office

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BACKGROUND

Eskom SOC Holding Limited (hereinafter Eskom) is the South African utility that generates, transmits and distributes electricity. Eskom supplies about 95% of the country's electricity and about 60% of the total electricity consumed in Africa. Eskom plays a major role in accelerating growth in the South African economy by providing a high-quality supply of electricity.

The Medupi Power Station Flue Gas Desulfurization (FGD) Retrofit Project consists of the retrofit of FGD systems onto six (6) 800 megawatt (MW) coal fired steam electric generating units. The proposed project is undertaken in the Limpopo Province, approximately 15km west of the town of Lephalale. The FGD Project will result in the addition of wet limestone open spray tower FGD systems to each of the operating units and will be operational within 6 years from the date of commercial operation of the first commercial generating unit.

NEED FOR THE PROPOSED PROJECT

The FGD project will involve the retrofitting of FGD technology to remove sulfur dioxide from the exhaust flue gases of the Medupi Power Station operations. The coal that Medupi Power Station burns to generate electricity results in ash and flue gases generated as the main by-products. The purpose of the FGD is to remove the sulfur dioxide from the exhaust flue gases.

Medupi Power Station currently has environmental authorisation for the construction of the Power Station and identified associated infrastructure. However to comply with the more stringent minimum Air Quality Emission Limits for new Power Plants, Medupi Power Station is required to comply on both the phases, that is, the construction phase and the operational phase.

Zitholele Consulting has been appointed by Eskom to do an Environmental Impact Assessment (EIA), Waste Management License (WML) and Water Use Licence

Application (WULA) for FGD retrofitting project. The EIA will identify, propose and assess:

- feasible sites for disposing the by-products,
- different technologies for the managing of commercial-grade saleable gypsum, ash and sludge disposal; and
- various possible designs for disposal facilities.

It is anticipated that the proposed FGD facility will have an estimated footprint of between 0.5 and 1 hectare, including associated infrastructure components which may consist of:

- Storage, handling and disposal of wastes
- Treatment of waste water within a Zero Liquid Discharge (ZLD) system.
- A conveyor belt for the transportation of waste to the ash disposal site;
- Services including electricity and water supply in the form of power lines, pipelines, and associated infrastructure; and
- Access and maintenance roads to the ash disposal facility (ADF).

The EIA team has thus far investigated all possible options for the use/disposal of the gypsum, ash and sludge. It was found that the most feasible manner in which to manage the waste was to co-dispose of all waste into the lined ADF.

LEGAL REQUIREMENTS

The proposed Medupi Power Station Flue Gas Desulfurization (FGD) retrofit and new Ash Disposal Facility is subject to the legal requirements outlined below. The applicable processes will be conducted simultaneously as an integrated process complemented by a combined public participation process and parallel Water Use License Application (WULA). These projects are subject to legal compliance from the following:

- a) National Environmental Management Act (NEMA), No 107 of 1998 and the EIA Regulations, 2010; and
- b) National Environmental Management Waste Act (NEM: WA), No 59 of 2008 as amended.
- c) National Water Act, No 36 of 1998 as amended.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

The proposed FGD facility and associated infrastructure requires an Environmental Impact Assessment (EIA) in terms of the National Environmental Management Act (NEMA), No 107 of 1998 and the amended EIA regulations (Government Notice R.543 to 546, published in June 2010). The Department of Environmental Affairs (DEA) is the Competent Authority.

As per Government Notice R.543 of June 2010, Chapter 2 the competent authority must consult with every government organ that administers a law relating to a matter affecting the environment relevant to that application for an environmental authorisation when considering an application.

Therefore, the Department of Water Affairs, the Limpopo Department of Economic Development, Environment and Tourism, Waterberg District Municipality and the Lephalale Local Municipality are commenting authorities in this process.

This process includes Scoping and Environmental Impact Report (S&EIR) Phases, which are applicable to all projects likely to have significant environmental impacts due to their nature or extent, activities associated with potentially high

levels of environmental degradation, or activities for which the impacts cannot be easily predicted.

In terms of Government Notice R.545 of 2010, the following listed activities require that a S&EIR be undertaken and are applicable to this proposed project:

- **Activity 3:** The construction of facilities or infrastructure for the storage, or for the storage and handling, of limestone as an input into the FGD process. The limestone will be stored at a volume of more than 500 cubic meters at any one time.
- **Activity 6:** The construction of facilities of infrastructure for the bulk transportation of ash using conveyors with a throughput capacity of more than 50 tons per day.
- **Activity 11:** The construction of a rail yard for purposes of transport of products to the Power Station and waste products from the Power Station.
- **Activity 15:** The physical alteration of undeveloped, vacant, or derelict land for purposes of a rail yard and associated infrastructure.



Figure 1: Construction at Medupi Power Station

NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT (NEM:WA)

With the proclamation of the National Environmental Management Waste Act (NEM: WA), No 59 of 2008, all waste related activities previously listed under the National Environmental Management Act (NEMA), No 107 of 1998 have been repealed and are now listed under the NEM:WA.

In terms of Government Notice R.718, **Category B** the following activities require authorisation:

Activity 1: The storage, including temporary storage, of hazardous waste in lagoons. This activity will be triggered should the sludge require separate disposal and not be co-disposed of at the Ash Disposal Facility.

Activity 5: The treatment of sludge in lagoons. This activity will only be triggered should the preferred option of co-disposal not be supported by the waste classification assessment.

Activity 7: The disposal of any quantity of gypsum to the existing Ash Disposal Facility.

Activity 10: The construction of facilities for activities listed in this schedule.

In terms of Government Notice R.718, **Category C** the following activities require authorisation:

Activity 2: The storage, including temporary storage, of hazardous waste such as gypsum, salts and sludges from the FGD process prior to disposal on or off-site. The combined storage of hazardous waste will be more than 35m³ at any one time.

As described in the Regulations *“a person who wishes to commence, undertake or conduct an activity listed under this Category, must conduct an environmental impact assessment process, as stipulated in the environmental impact assessment regulations made under Section 24(5) of the NEMA as part of a waste management license application”*.

Therefore the proposed development requires the submission of a Waste Management License application as well as a Scoping and Environmental Impact Report (S&EIR) to the DEA.

WATER USE LICENSE APPLICATION (WULA)

The FGD will be operated on wet systems; very small volumes of water will be circulated from the absorber reaction tank to spray headers. The water will be abstracted from the existing raw water reservoir. The reservoir has two compartments to supply water from either the Crocodile West or the Mokole water suppliers. Water will also be used for suppressing ash from the ADF. In addition, waste water will be treated on site within a Zero Liquid Discharge facility. The project will therefore require a Water Use License Application (WULA) in terms of Section 21 of the National Water Act (No 36 of 1998) (NWA). The WULA will be initiated later within the EIA process.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

An Environmental Impact Assessment (EIA) is a planning and decision-making tool undertaken in terms of the National Environmental Management Act (NEMA), Act No 107 of 1998, as amended. An EIA is a management tool that helps to identify and mitigate any potential impacts that a new development might generate on the receiving environment. The EIA takes place prior to the construction of the development.

TECHNICAL AND PUBLIC PARTICIPATION PROCESSES

An EIA has two parallel and integrated processes namely, a **technical** and a **public participation** process.

The **technical process** investigates "hard" information: facts based on scientific and technical studies, statistics or technical data. It identifies the potential negative and positive consequences of a proposed project or development at an early stage and recommends ways to enhance positive impacts and to avoid, reduce or mitigate negative impacts.

The EIA regulations require that an Environmental Management Programme (EMPr) be developed. The EMPr provides recommendations on how to operate and implement the project. The provisions of the EMPr are legally binding on the developer and its contractors.

Public participation ensures that the EIA process is fair, open and transparent. It also provides stakeholders with sufficient information and gives them opportunity to contribute by reviewing and commenting on the information.

The findings of the EIA will assist landowners and Eskom to determine the extent of local impacts in support of any negotiations that might be necessary.

The public participation process is designed to provide sufficient and accessible information to Interested and Affected Parties (I&APs) in an objective manner to assist them to:

- Raise issues of concern and make suggestions for alternatives and enhanced benefits;
- Contribute local knowledge;
- Verify that their issues have been captured and considered by the technical investigations;
- Comment on the findings of the EIA.

PHASES IN AN EIA

SCOPING PHASE

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 form of specialist studies/investigations.

The Scoping Report and Plan of Study for the EIA are submitted to the Department of Environmental Affairs (DEA) for review and to approve the proposed approach to the detailed investigation required in the next phase.

Activities involved in the Scoping Phase include:

- Meetings with authorities to agree on process and study requirements;
- Initial public and landowner notification, which includes placing of site notices, the distribution of letters, this Background Information Document and an invitation to

contribute to the EIA process to I&APs in the project area and beyond;

- Advertisements in local and regional newspapers to announce opportunities to participate;
- Progress feedback letter to be issued and announcements to be made of the availability of the Draft Scoping Report (DSR) and Comment and Responses (CRR);
- Distribution of a DSR, including CRR for comment;
- Convening a stakeholder meeting in the project area to obtain comments on the DSR
- Submission of a Final Scoping Report (FSR), capturing all issues raised for the impact assessment, to the DEA;
- Submit the Plan of Study for the EIA to the DEA;
- Distribution of the FSR for comments; and
- Distribution of a progress feedback letter to stakeholders.

ENVIRONMENTAL IMPACT REPORT PHASE

The **second phase** is the Environmental Impact Report (EIR) Phase, which entails undertaking various specialist studies and compiling a Draft EIR.

As part of the assessment, an Environmental Management Programme (EMPr) as well as an Operational Plan will also be submitted to the Department of Environmental Affairs (DEA) for their approval. By following the EMPr, Eskom and its contractors will ensure compliance to environmental regulations during the planning, construction, operation and decommissioning (if applicable) phases.

The list of identified specialist studies required for this EIR (to date) is listed below (all seasonal dependent studies will be undertaken in the wet season):

- Facility Design, Operational Plan and Topographical Survey;
- 3D modelling of the final site design (optional)
- Waste Classification;
- Social Impact Assessment;
- Visual Impact Assessment; and
- GIS for mapping purposes.

The names of the specialists who will undertake these studies are available from the public participation office.

Specific activities in this phase will include:

- Specialist studies focused on outcomes of the Scoping Phase and issues raised by stakeholders;
- Progress feedback to stakeholders;
- Compilation of a Draft EIR and EMPr indicating the potential positive and negative impacts and measures to enhance positive impacts and to reduce or avoid negative impacts;
- Environmental Impact Statement, highlighting the preferred alternative and reasons thereof;
- Advertise the availability of the Draft EIR and EMPr in local and regional newspapers;
- Distribution of the Draft EIR and EMPr, including Issues and Responses Report, for comment;
- A stakeholder meeting in the project area to present a summary of the findings of the EIR for stakeholder comment; and
- Distribution of the Final EIR and EMPr for comment.

The EIR and EMPr will then be finalised and submitted to the DEA for a decision.

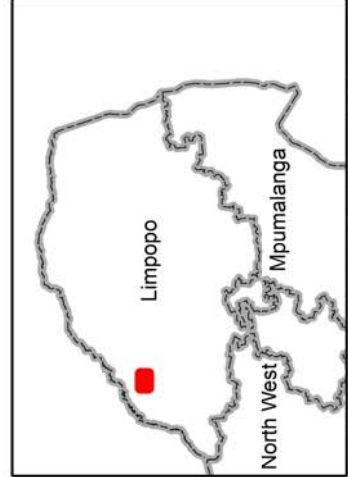
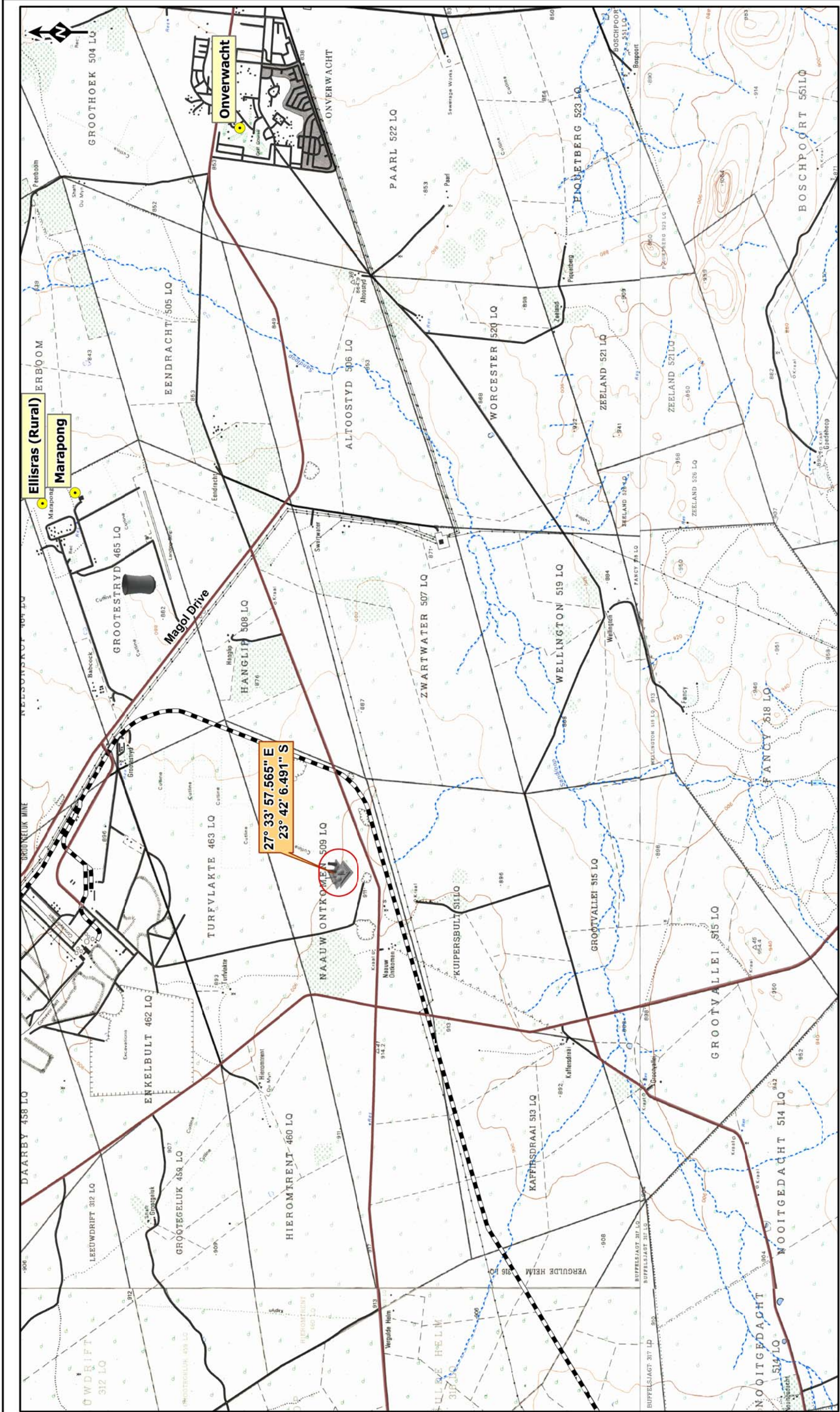
DECISION-MAKING (ENVIRONMENTAL AUTHORISATION)

This involves notifying the registered I&APs about the decision from the Competent Authority, the Department of Environmental Affairs (DEA) in this case. The DEA must accept or reject this report within 105 days. Stakeholders will be notified of the DEA's decision if an Environmental Authorisation has been granted or not and of the appeal procedure should they wish to appeal the decision.

Your comments are important.

The purpose of an Environmental Impact Assessment is to provide the decision-making authority with sufficient information on which to base their decision to grant or refuse an Environmental Authorisation and if granted, to define conditions for the development. The contributions made by stakeholders from all sectors of society will ensure informed decision-making.

You are invited to participate freely and to submit any comments or information you feel may be useful to the EIA process. Registered interested and affected parties are entitled to comment, in writing, on all written submissions to the competent authority (Department of Environmental Affairs) and to bring to the attention of the competent authority, any issues which the party believes may be of significance to the consideration of the application.



LEGEND

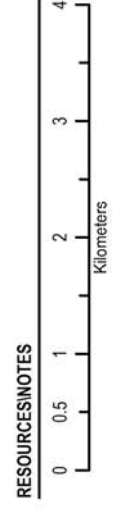
- Place Names
- Medupi Power Station
- Matimba Power Station

ROADS

- Regional road
- Main road
- Secondary road
- Streets and other access

ROADS

- Rail
- Non Perennial Rivers
- Perennial Rivers



PROJECT
MEDUPI FGD

TITLE
LOCALITY MAP

GIS	VR	23/04/2014	PROJECT No. 12949
CHECK	SM	23/04/2014	SCALE 1:65 000
REVIEW		23/04/2014	A3
			REV 0

REFERENCE
PROJECTION GCS WGS 1984

DRAFT

REGISTRATION AND COMMENT SHEET

**Integrated Environmental Impact Assessment
and Water Use License Application for a
proposed Retrofitting Flue Gas Desulphurisation
(FGD) at Medupi Power Station
(DEA Ref.No.: 14/12/16/3/3/3/110)**

(inserted in the Background Information Document)

June 2014

EIA Public Participation Office

Nicolene Venter / Bongani Dhlamini
Zitholele Consulting (Pty) Ltd
P O Box 6002, Halfway House, 1685
Tel: (011) 207 2060
Fax: 086-676-9950
Email: publicprocess@zitholele.co.za

Please complete by Monday 07 July 2014 and return to the EIA Public Participation Office (as above)

TITLE		NAME			
SURNAME					
ORGANISATION or PROPERTY INFORMATION					
POSTAL ADDRESS			POSTAL CODE		
TEL NO		FAX NO			
CELL NO					
E-MAIL ADDRESS					
Please formally register me as an interested and/or affected party (I&AP) so that I may receive further information and notifications during the Environmental Impact Assessment process			<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> </table>	YES	NO
YES	NO				
I would like my notifications by			Letter (mail)		
			Email		
			Fax		
			Telephone		
I would like to receive documents for comment as follows:			By email		
			On CD		
In terms of Regulations GNR 543 - 546 – Government Gazette No. 33306 of 18 June 2010 (EIA process regulations) I disclose below any direct business, financial, personal or other interest that I may have in the approval or refusal of the application:					

COMMENTS (please use separate sheets if you wish)

I suggest that the following issues of concern be investigated in the Environmental Impact Assessment:

.....

.....

.....

Please register the following colleagues/friends/neighbours on the project database:

.....
THANK YOU FOR YOUR CONTRIBUTION

06 June 2014

Thobela Mokgathatema

Kelo ya Seabe sa Tikologo le Kgopelo ya Laesense ya Taolo ya Ditšhila ya Tselatshepetšo ya Tsenyogape yeo e šišintšwego ya Hlwekišo ya Gase ya Tšhimini (FGD) Setešieneng sa Medupi sa Mohlagase
(DEA Ref. No.: 14/12/16/3/3/110)

Tshepetšo ya Kelo ya Seabe sa Tikologo yeo e kopantšwego (EIA) le Kgopelo ya Laesense ya Taolo ya Meetse a Ditšhila di tla dirwa go Tsenyogape yeo e šišintšwego ya tselatshepetšo ya Hlwekišo ya Gase ya Tšhimini (FGD) go Setešiene sa Medupi sa Mohlagase. Setešiene sa Medupi sa Mohlagase se bodikela bja Lephallale, Profenseng ya Limpopo.

Tshepedišo yeo e šišintšwego ya FGD Setešieneng sa Medupi sa Mohlagase e tla tšweletša tšipisiamo, leraga le molora tšeo di swanetšwego go tšhollwa ka tsela ya maikarabelo a tikologo. Go tsenyagape ga theknolotši ya FGD go tla thuša ka go tloša salfa taeoksaete go tšwa go digase tša tšhimini tša ditshepedišo tša Setešiene sa Medupi sa Mohlagase. Ye nngwe le ye nngwe ya diyuniti tše tshela (6) tša 800MW tšeo di tšweletšago mohlagase wa muši wo o tukišwago ka malahla di tla tsenywa gape theknolotši ya FGD. Setešiene sa Medupi sa Mohlagase ga bjale se na le Tumelelo ya Tikologo ya go aga Setešiene sa Tikologo le sebopego seo se amanago le sona seo se laeditšwego. Setešiene sa Mohlagase ga bjale se legatong la mafelelo la kago.

Go lebeletšwe gore protšeke ye e šišintšwego ya FGD e tla akaretša dikarolwana tše di latelago:

- Ditšhila go tšwa go FGD di tla bolokwa, tša swarwa gomme tša tšhollwa lefelong leo le lego gona la ADF le molora go tšw go setešiene sa mohlagase;
- Lepanta la phetišo la tshepetšo ya ditšhila go lefelong la go tšholla molora (ADF); le phihlelelo le tlhokomelo ya ditsela go ya saeteng ya ADF;
- Tlhokomelo ya meetse e tla dirwa planting ya Go ntšha Meetse ka Lefela;
- Meetse a tla ntšhwa go tšwa letangwaneng leo le go gona la tshepetšo ya FGD;
- Go tla agwa sebopego seo se amanago le se saeteng.

Zitholele Consulting (Pty) Ltd e thwetšwe bjalo ka Sešomi sa go ikemela ka noši sa Kelo ya Tikologo ke Eskom Holding SOC Limited go dira ditshepetšo tša EIA, WULA le WML.

Lengwalo le le go mema go tlo ingwadiša bjalo ka Mokgatlo wo o na go le Kgahlego le/goba o Amegago (E&AP) le go kgatha tema ka go tshepetšo ye ya tikologo. Go ingwadiša bjale ka I&AP, o kgopelwa go diriša ngwadišo le letlakala la ditshwaotshwao tšeo di loketšwego ka gare ga Tokumente ya Tshedimošo ya Kakaretšo. O kgopelwa go bušetša letlakala la ditshwaotshwao pele ga 07 Julae 2014 go tshepetšo ye ya mathomo ya tsebišo ya setšhaba, le ge dithomelo le bokgathatema bja setšhaba di tla tšwela pele nako ka moka ya tshepetšo ya EIA.

O kgopelwa gore o romele phetolo ya gago go Venter / Bongani Dhlamini Kantorong ya Bokgathatema bja Setšhaba – dintlha di filwe godimo ga ngwadišo le letlakala la ditshwaotshwao. O dumeletšwe gape go ikopanya le Zitholele Consulting go (011) 207-2060, ge o ka ba le tshedimošo yeo o ka e hlokago mo legatong le.

Ka boikokob etšo



Nicolene Venter
Mošomi wo Mogolo wa Bokgathatema bja Setšhaba

Kelo ya Seabe sa Tikologo le Kgopelo ya Laesense ya Taolo ya Ditšhila go Seteišene seo se šišintšwego sa Mohlagase wa Medupi sa Hlwekišo ya Gase ya Tšhimini.

TOKUMENTE YA KAKARETŠO YA TSHEDIMOŠO

DEA Ref: 14/12/16/3/3/3/110

Tokumente ye ya Tshedimošo ka Kakaretšo (BID) e fana ka tshedimošo go Mekgatlo yeo e na go le Kgahlego le yeo e Amegago (I&Aps) ka ga Kelo ya Seabe go tikologo (EIA), Kgopelo ya Laesense ya Taolo ya Ditšhila (WMLA) le Kgopelo ya Laesense ya Tirišo ya Meetse (WULA) tšeo di dirwago ke Zitholele Consulting go moago wa Retrofitting of Flue Gas Desulphurisation Seteišeneng sa Medupi Mohlagase. Maikemišetšo a tokumente ye ke go tsebiša I&Aps ka ga mediro ye e latelago yeo e šišintšwego;

BID e fana gape go Mekgatlo yeo e nago le Kgahlego le yeo e Amegago (I&Aps) ka sebaka sa go:

- Ngwadiša bjalo ka mokgathatema ka go tšhepetšo ya bokgathatema bja setšhaba; le
- Fa ditswhaotshwao go protšeke yeo e šišintšwego.

Mohola wa EIA ke go laetša le go ela diabe tšeo di ka ba go gona, go šišinya ditsela tšeo di swanetšwego go se šetšwe goba go fokotša diabe tšeo di sa lokago gape le go oketša diabe tšeo di nyakegago. Laesense ya mediro ya taolo ya ditšhila yeo e fiwago ke WMLA ke yona tsela ya motheo yeo ka yona mediro ye e laolwago. Taolo ya go tšea sephetho go bobedi bja Kgopelo ya EIA le WMLA ke Goro ya Merero ya Tikologo (DEA).

Ge o ka ngwadiša bjalo ka mokgathatema, o tla lokelwa ka gare ga datapeisi ya bakgathatema gomme wa amogela ditokumente tše dingwe gore o di lekole o kgone le go fa ditswhaotshwao. Ditswhaotshwao tša gago di tla netefatša gore ditaba ka moka tšeo di swanetšwego go fiwa šedi di a akaretšwa. **Go tšweletša maikutlo a gago le go romela ditswhaotshwao tšeo o ka ba go le tšona ga bjale, tlatša letlakala leo le loketšwego ka fa la ngwadišo, ngwala lengwalo, letša goba o romele emeile go kantoro ya bokgathatema bja setšhaba (dintlha tša go ikopanya le bona ke tše di latelago ka tlase).**

Ditokumente ka moka di tla ba gona godimo ga inthanet go <http://www.zitholele.co.za/eia-for-medupi-fgd>

Kantoro ya bokgathatema bja Setšhaba

Nicolene Venter / Bongani Dhlamini
Zitholele Consulting
P O Box 6002, Halfway House, 1685
Tel: 011 207 2060
Fax: 086-676-9950
Email: publicprocess@zitholele.co.za

Technical enquiries

Sharon Meyer-Douglas
Zitholele Consulting
Tel: (011) 207-2073
Fax: 086-676-9950
Email: sharonm@zitholele.co.za

KAKARETŠO

Eskom SOC Holding Limited (yeo e bitšwago Eskom) ke tirelo ya Afrika Borwa yeo e tšweletšago, fetišago gape e phatlalatšago mohlagase. Eskom e fana ka mohlagase wa go ka ba 95% wa naga gape le go ka ba 60% ya mohlagase ka moka woo o dirišwago ka Afrika. Eskom e na le mošomo wo bohlokwa ka go oketša kgolo ka go ekonomi ya Afrika Borwa ka go fana ka kabo ya khwalithi ya godimo ya mohlagase.

Protšeke ya Seteišene sa Medupi sa Mohlagase sa Tsenyogape ya Hlwekišo ya Gase ya Tšhimini (FGD) e akaretša go tsenya gape ga ditselatshepetšo tša FGD godimo ga di mekawate (MW) tše tshela (6) 800 tša diyuniti tšeo di tšweletšago mohlagase tša muši woo o tukišago ke malahla. Protšeke ye e šišintšwego e dirwa Profenseng ya Limpopo, dikilometara tša go ka ba tše 15 bodikela bja toropo ya Lephale. Protšeke ya FGD e tla tšweletša koketšo ya ditselatshepetšo tša FGD tša thawa ya go fothela yeo e bulegilego ya go thapa ya laemestone go diyuniti ka moka tšeo di šomago gomme e tla šoma mo mengwageng ye 6 go tlogela ka tšatšikgwedi la tshepetšo ya kgwebo ya yuniti ya mathomo ya tšweletšo ya kgwebo.

TLHOKEGO YA PROTŠEKE YE E ŠIŠINTŠWEGO

Protšeke ya FGD e tla ama go tsenya gape ga theknolotši ya FGD go tloša salfa taeoksaete go tšwa go digase tša tšhimini tša ditshepedišo tša Seteišene sa Medupi Power. Malahla ao a fišwago ke Seteišene sa Medupi Power go tšweletša mohlagase a feletša e le molora le digase tša tšhimini tšeo di tšweleditšwego bjalo ka ditšweletša tše kgolo. Mohola wa FGD ke go tloša salfa taeoksaete go tšwa go digase tša tšhimini.

Seteišene sa Medupi Power se na le tumelelo ya tikologo ya go aga Seteišene sa Mohlagase le dibopego tša go amana le sona tšeo di laeditšwego. Le ge go le bjalo, go latela melao ye mengwe ye boima ya Dikgaoletšo tša Montšho wa Khwalithi ya Moya go Diplante tše mpsha tša Mohlagase, Seteišene sa Mohlagase sa medupi se hloka gore se latele melao ya bobedi bja magato, go šupša legato la kago le legato la tshepedišo.

Zitholele Consulting e thwetšwe ke Eskom go dira Kelo ya Seabe sa Tikologo (EIA), Laesense ya Taolo ya Ditšhila (WML) le Kgopelo ya Laesense ya Tirišo ya Meetse (WULA) tša protšeke ya go

tsenya gape ya FGD. EIA e tla laetša, šišinya le go ela:

- disaete tšeo di lokilego tša go tšholla ditšweletšwa,
- ditheknolotši tša go fapana tša go laola tšipsiamo ya go tswalela ya grata ya kgwebo, molora le ditšhila tša leraga; le
- dithulaganyo tša go fapafapana tšeo di kgonegago tša meago ya ditšhila..

Go lebeletšwe gore moago wo o šišintšwego wa FGD o tla ba le dikgato tše di ka balelwago magareng ga dihektara tše 0.5 le 1, go akaretšwa dikarolwana tša sebopogo tšeo di ka akaretšago:

- Polokelo, go swara le go tšholla ditšhila
- Tlhokomelo ya meetse a ditšhila ka tselatshepetšo yeo e Ntšhago Meetsana ka Bolefela (ZLD).
- Lepanta la phetišo la tshepetšo ya ditšhila go iša saeteng ya go ntšha molora;
- Ditirelo tšeo di akaretšago kabo ya mohlagase le meetse ka mokgwa wa dilaene tša mohlagase, diphaephe, le dibopego tšeo di amanago le tšona; le
- Phihlelelo le tlhokomelo ya ditsela go ya go mafelo a go tšholla melora (ADF).

Sehlopha sa EIA se šetše se nyakišišitše dikgonagalo ka moka tša tirišo/tšhollo ya tšipsiamo, molora le leraga. Go hweditšwe gore tsela ye kaone go di feta ya go laola ditšhila ke go di tšholla ka moka mmogo ka go ADF yeo e thadilwego.

DINYAKWA TŠA SEMOLAO

Go tsenya gape go go šišitšwego gwa Hlwekišo ya Gase ya Tšhimini(FGD) ya Seteišene sa Mohlagase sa Medupi le Moago wo moswa wa Go tšholla Molara go laolwa ke dinyakwa tša semolao tšeo di filwego ka mo tlase. Ditshepetšo tšeo di hlokegago di tla dirwa nako e tee bjalo ka tshepetšo yeo e kopantšwego e tlatšwago ke tshepetšo ya bokgathatema bja setšhaba yeo e kopantšwego gammogo le Kgopelo ya Laesense ya Tirišo ya Meetse (WULA) yeo e lebanego le yona. Diprotšeke tše di laolwa ke tatelo ya semolao go tšwa go Melao ye e latelago:

- Molao wa Bosetšhaba wa Taolo ya Tikologo (NEMA), Wa 107 wa 1998 le Melawana ya EIA, 2010; le
- Molao wa Bosetšhaba wa Ditšhila tša Taolo ya Tikologo (NEM: WA), Wa 59 wa 2008 go ya ka moo o lokišitšwego.
- Molao wa Bosetšhaba wa Meetse, Wa 36 wa 1998 go ya ka moo o lokišitšwego.

MOLAO WA BOSETŠHABA WA TAOLO YA TIKOLOGO (NEMA)

Sebopego seo se šišintšwego sa FGD le dibopego tšeo di amanago le sona di hloka Kelo ya Seabe sa Tikologo (EIA) go ya ka Molao wa Bosetšhaba wa Taolo ya Tikologo (NEMA), Wa 107 wa 1998 le melawana yeo e lokišitšwego ya EIA (Tsebišo ya Mmušo R.543 go ya go 546, yeo e phatlaladitšwego ka June 2010). Kgoro ya Merero ya Tikologo (DEA) ke yona Pušo ya Maitemogelo.

Go ya ka Tsebišo ya Mmušo R.543 ya June 2010, Kgaolo ya 2 pušo ya maitemogelo e swanetše go ikopanya le setho se sengwe le se sengwe sa mmušo seo se laolago molao woo o amanago le taba yeo e amago tikologo malebana le kgopelo yeo go hwetša tumelelo ya tikologo ge e šetša kgopela.

Ka go realo, Kgoro ya Merero ya Meetse, Kgoro ya Tšwetšopele ya Ekonomi, Tikologo le Boeti ya Limpopo, Mmasepala wa Selete wa Waterberg ke tšona dipušo tša go swayaswaya mo tshepetšong ye.

Tshepetšo ye e akaretša Magato a Kakaretšo le Pego ya Seabe sa Tikologo (S&EIR), ao a lego gona go diprotšeke ka moka tšeo di ka ba go le diabe tša go swana go ya ka tlhago ya tšona goba bogolo, mediro yeo e amanago le magato a godimo a phokotšo ya tikologo, goba mediro yeo e lego gore diabe di ka se kamakwego gabonolo.

Go ya ka Tsebišo ya Mmušo R.545 ya 2010, mediro yeo e latelago e hloka S&EIR gore e dirwe gomme e ama protšeke ye e šišintšwego:

- Modiro wa 3:** Kago ya meago goba sebopego tša poloko, goba go boloka le go swara, tša leswika la laeme bjalo ka koketšo go tshepetšo ya FGD. Leswika la laeme le tla bolokwa ka boima bja go feta dimetara tša kubiki tše 500 nakong efe goba efe e tee.
- Modiro wa 6:** Kago ya meago ya sebopego go sepetša ka bontši melora ka go diriša basepediši bao ba nago le boleng bja go bonagala bja ditone tša go feta tše 50 ka letšatši.
- Modiro wa 11:** Kago ya jarata ya legora meholeng ya dinamelwa tša ditšweletša go ya Seteišeneng sa Mohlagase le ditšweletšwa tša ditšhila go tšwa go Seteišene sa Mohlagase.
- Modiro wa 15:** Tokišo ya ka ntle ya lefase leo le sa tšweletšwago gabotse, leo le se na go selo meholeng ya jarata ya legora le sebopego seo se amanago le yona.



Seswantšho sa 1: Kago go Seteišene sa Medupi sa Mohlagase

MOLAO WA BOSETŠHABA WA DITŠHILA TŠA TAOLO YA TIKOLOGO (NEM:WA)

Ka tsebagatšo ya Molao wa Bosetšhaba wa Ditšhila wa Taolo ya Tikologo (NEM: WA), Wa 59 wa 2008, mediro ka moka yeo e amanago le ditšhila yeo e filwego peleng ka tlase ga Molao wa Bosetšhaba wa Taolo ya Tikologo (NEMA), Wa 107 wa 1998 e phumutšwe gomme ga bjale e fiwa ka tlase ga NEM:WA. Go ya Tsebišo ya Mmušo R.718, **Sehlopha B** mediro ye e latelago e hloka tumelelo:

Modiro wa 1: Lefelo la polokelo, go akaretša lefelo la polokelo la motšwaoswere, la ditšhila tše kotsi ka gare ga matangwana. Modiro wo o tla diragatšwa ge leraga le ka hloka lefelo la go tšholla leo le fapanego gomme la se tšhollwe mmogo Lefelong la Go tšholla la Melora.

Modiro wa 5: Tlhokomelo ya leraga ka gare ga matangwana. Modiro wo o tla diragatšwa fela ge kgetho yeo e kaonetšwago ya go tšholla mmogo e sa thekgwe ke kelo ya tlhopho ya ditšhila.

Modiro wa 7: Go tšholla boleng bofe goba bofe bja tšipiamo go ya go Lefelo la Go Tšholla la Melora.

Modiro wa 10: Kago ya meago ya mešongwana yeo e filwego ka gare ga šetule ye.

Go ya ka Tsebišo ya Mmušo R.178, **Sehlopha C** mediro ye e latelago e hloka tumelelo:

Modiro wa 2: Lefelo la polokelo, go akaretšwa lefelo la polokelo la motšwaoswere, la ditšhila tše kotsi go swana le tšipiamo, matswai le maraga go tšwa go tšhepetšo ya FGD pele ga go tšholla saeteng goba ka ntle. Lefelo la polokelo leo le kopanetšwego la ditšhila tše kotsi le tla ba 35m³ ka nako efe goba efe e tee.

Go ya ka moo go hlalositšwego ka gare ga Melawana “*motho yoo a ratago go thoma, go tšea goba go diragatša modiro woo o filwego ka tlase ga Sehlopha se, o swanetše go dira tšhepetšo ya kelo ya seabe sa tikologo yeo e dirilwewgo ka tlase ga Karolo 24(5) ya NEMA bjalo ka karolo ya kgopelo ya laesense ya taolo ya ditšhila*”.

Ka go realo tšwetšopele yeo e šišintšwego e hloka go romela kgopelo ya Laesense ya Taolo ya Ditšhila gammogo le Kakaretšo le Pego ya Seabe sa Tikologo (S&EIR) go ya go DEA.

KGOPELO YA LAESENSE YA TIRIŠO YA MEETSE (WULA)

FGD e tla sepetšwa godimo ga ditselatshepetšo tša go thapa; divolumu tše nnyane kudu tša mmetse di tla sepetšwa go tloga go tanka go ya go difuthela. Meetse a tla ntšhwa go tšwa go letangwana leo le lego gona la meetse. Letangwana le na le dikarolo tše pedi go aba meetse go tšwa go Crocodile West goba diabi tša Mokole tša meetse. Meetse a tla dirišwa gape go gatelela molora go tšwa go ADF. Godimo ga moo, meetse a ditšhila a tla hlwekišwa saeteng lefelong la Go ntšha Lefela la Meetse. Protšeke ka moo e tla hloka Kgotelo ya Laesense ya Tirišo ya Meetse (WULA) go ya ka Karolo 21 ya Molao wa Bosetšhaba wa Meetse (Wa 36 wa 1998) (NWA). WULA e tla thongwa ka morago ka go tšhepetšo ya EIA.

KELO YA SEABE SA TIKOLOGO (EIA)

Kelo ya Seabe sa Tikologo (EIA) ke sedirišwa sa go rulaganya le go tše a sephetho go ya ka Molao wa Bosetšhaba wa Taolo ya Tikologo (NEMA), Molao wa 107 wa 1998, go ya ka moo o lokišitšwego. EIA ke sedirišwa sa taolo seo se thušago go laetša le go fokotša diabe tšeo di ka ba go gona tše tšwetšopele ye mpsha e ka ba go le tšona godimo ga tikologo ya go amogela. EIA e tla pele ga kago ya tšwetšopele.

DITSHPETŠO TŠA BOKGATHATEMA BJA THEKNIKI LE SETŠHABA

EIA e na le ditshepetšo tše pedi tša go lebana gape tšeo di kopanetšwego di bitšwago, tšhepetšo ya **thekniki** le **bokgathatema bja setšhaba**.

Tšhepetšo ya thekniki e nyakišiša tshedimošo ye “bothata”: dintlha tšeo di theilwego godimo ga dithuto tša saense le thekniki, dipalopalo goba data ya thekniki. E laetša ditlamorago tša mohola le tša go hloka mohola tša protšeke yeo e šišintšwego goba tšwetšopele legato la ka pejana gomme ya eletša ditsela tša go oketša diabe tša mohola le go fokotša diabe tša go hloka mohola.

Melawana ya EIA e nyaka gore Lenaneo la Taolo ya Tikologo (EMPr) e tšweletšwe. EMPr e fana ka ditšhišinyo tša ka moo go ka sepetšwago le go diragatša protšeke. Dikabo tša EMPr di tlama ka semolao go motšweletši le badiredi ba yona.

Bokgathatema bja setšhaba bo netefatša gore tšhepetšo ya EIA e gabotse, e bulegile gape ga e na sephiri. E fana gape go bakgathatema ka tshedimošo ka botlalo gape e ba fa sebaka sa go neelana ka go lebelela gape le go swayaswaya godimo ga tshedimošo.

Dikhumano tša EIA di tla thuša beng ba naga le Eskom go laetša bogolo bja diabe tša selegae ka thekgo ya ditherišano dife goba dife tšeo di ka hlokagalago.

Tšhepetšo ya bokgathatema bja setšhaba e rulagantšwe go fana ka tshedimošo ka botlalo gape yeo e fihlelelwago go Mekgatlo yeo e na go le Kgahlego gape e Amegago (I&Aps) ka mokgwa wa maikemišetšo a go ba thuša go:

- Tšweletša ditaba tšeo di ba amago gape le go dira ditšhišinyo tša mehola ye mengwe;
- Abelana ka tsebo ya selegae;
- Netefatša gore ditaba tša bona di rekitilwe gape di šeditšwe ke dinyakišišo tša thekniki;
- Fa tshwaotshwao godimo ga dikhumano tša EIA.

MAGATO KA GARE GA EIA

LEGATO LA KAKARETŠO

Legato la mathomo la EIA ke Legato la Kakaretšo, leo le direlwago go hwetša kwešišo ya ditaba tšeo di ka ba go gona tša tikologo tšeo di le go malebana le protšeke gape le go

laetša moo tshedimošo ye nngwe e nyakegago, ka mokgwa wa dinyakišišo/dithuto tša setsebi.

Pego ya Kakaretšo le Thulaganyo ya Thuto tša EIA di romelwa go Kgoro ya Merero ya Tikologo (DEA) go lekolwa gape le go dumelela mokgwa wo o šišintšwego go nyakišišo ka botlalo yeo e hlokegago go legato le le latelago.

Mediro yeo e lego ka go Legato la Kakaretšo e akaretša:

- Dikopano le bammušo go dumelelana ka tshepetšo le dinyakwa tša thuto;
- Tsebišo ya mathomo ya setšhaba le mong wa naga, yeo e akaretšago go bea ditsebišo tša saete, phatlalatšo ya mangwalo, Tokumente ye ya Tshedimošo ka Kakaretšo le taletšo ya go tšea karolo ka go tshepetšo ya EIA go I&Aps lefelong la protšeke le go feta;
- Dipapatšo ka gare ga dikuranta tša selegae le tša selete go tsebagatša dibaka tša go kgatha tema;

- Lengwalo la pego ya tšwelopele leo le tla fiwago le ditsebišo tšeo di tlo go dirwa tša go ba gona ga Pego ya Sethalwa ya Kakaretšo (DSR) le Ditshwaotshwao le Diphetolo (CRR);
- Phatlalatšo ya DSR, go akaretšwa CRR go fa ditshwaotshwao;
- Go bitša kopano ya bakgathatema ka go lefelo la protšeke go hwetša ditshwaotshwao godimo ga DSR
- Go romela Pego ya Mafelelo ya Kakaretšo (FSR), go ngwala ditaba ka moka tšeo di boletšwego go kelo ya seabe, go ya go DEA;
- Romela Thulaganyo ya Thuto ya EIA go ya go DEA;
- Phatlalatšo ya FSR go hwetša ditshwaotshwao; le
- Phatlalatšo ya lengwalo la pego ya tšwelopele go ya go bakgathatema.

LEGATO LA PEGO YA SEABE SA TIKOLOGO

Legato la bobedi ke Legato la Pego ya Seabe sa Tikologo (EIR), leo le akaretšago go dira dithuto tša go fapafapana tša botsebi le go ngwala Sethalwa sa EIR.

Bjalo ka karolo ya kelo, Lenaneo la Taolo ya Tikologo (EMPr) gammogo le Thulaganyo ya Tshapedišo di tla romelwa go Kgoro ya Merero ya Tikologo (DEA) go hwetša tumelelo. Ka go latela EMPr, Eskom le badiredi ba yona e tla netefatša gore go ba le tatelo ya melawana ya tikologo mo nakong ya magato a thulaganyo, kago, tshapedišo le go ntšha (ge e le gona).

Lenaneo la dithuto tšeo di laeditšwego tša botsebi tša EIR (go fihla ga bjale) le fiwa ka mo tlase (dithuto ka moka tša dihla di tla dirwa ka sehla sa go thapa):

- Moakanyo wa Moago, Thulaganyo ya Tshapedišo le Nyakišišo ya Tikologo;
- Go dira motlolo wa 3D ya moakanyo wa mafelelo wa saete (ga e gapeletšwe)
- Tlhopho ya Ditšhila;
- Kelo ya Seabe sa Leago;
- Kelo ya Seabe sa Ponot; le
- GIS meholeng ya thulaganyo.

Maina a ditsebi tšeo di tlo go dira dithuto tše a gona go tšwa go kantoro ya setšhaba ya bokgathatema.

Mediro ye e itšego ka gare ga legato le e tla akaretša:

- Dithuto tša botsebi di lebeletše ditlamorago tša Legato la Kakaretšo le mathata ao boletšwego ke bakgathatema;
- Pego ya tšwelopele go bakgathatema;
- Go ngwala Sethalwa sa EIR le EMPr yeo e laetšago diabe tšeo di ka ba go gona tša go ba le mohola le tša go hloka mohola le go fokotša goba go phema diabe tša go hloka mohola;
- Pego ya Seabe sa Tikologo; yeo e gatelelago kgetho yeo e kaonetšwago le mabaka a yona;
- Bapatša go ba gona ga Sethalwa sa EIR le EMPr ka gare ga dikuranta tša selegae le tša selete;
- Phatlalatšo ya Sethalwa sa EIR le EMPr, go akaretšwa Mathata le Pego ya Diphetolo, go fana ka ditshwaotshwao;
- Kopano ya bakgathatema ka lefelong la protšeke go fana ka kakaretšo ya dikhumano tša EIR tša ditshwaotshwao tša bakgathatema; le
- Phatlalatšo ya EIR ya Mafelelo le EMPr go fa ditshwaotshwao.

EIR le EMPr di tla phethwa gomme tša romelwa go DEA go tšea sephetho.

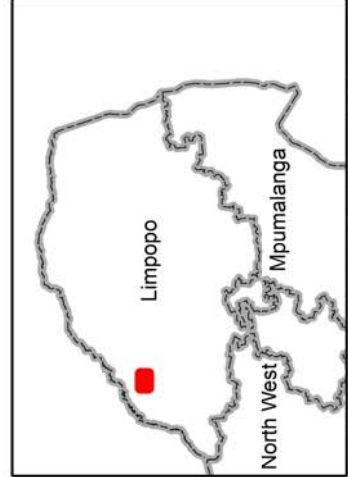
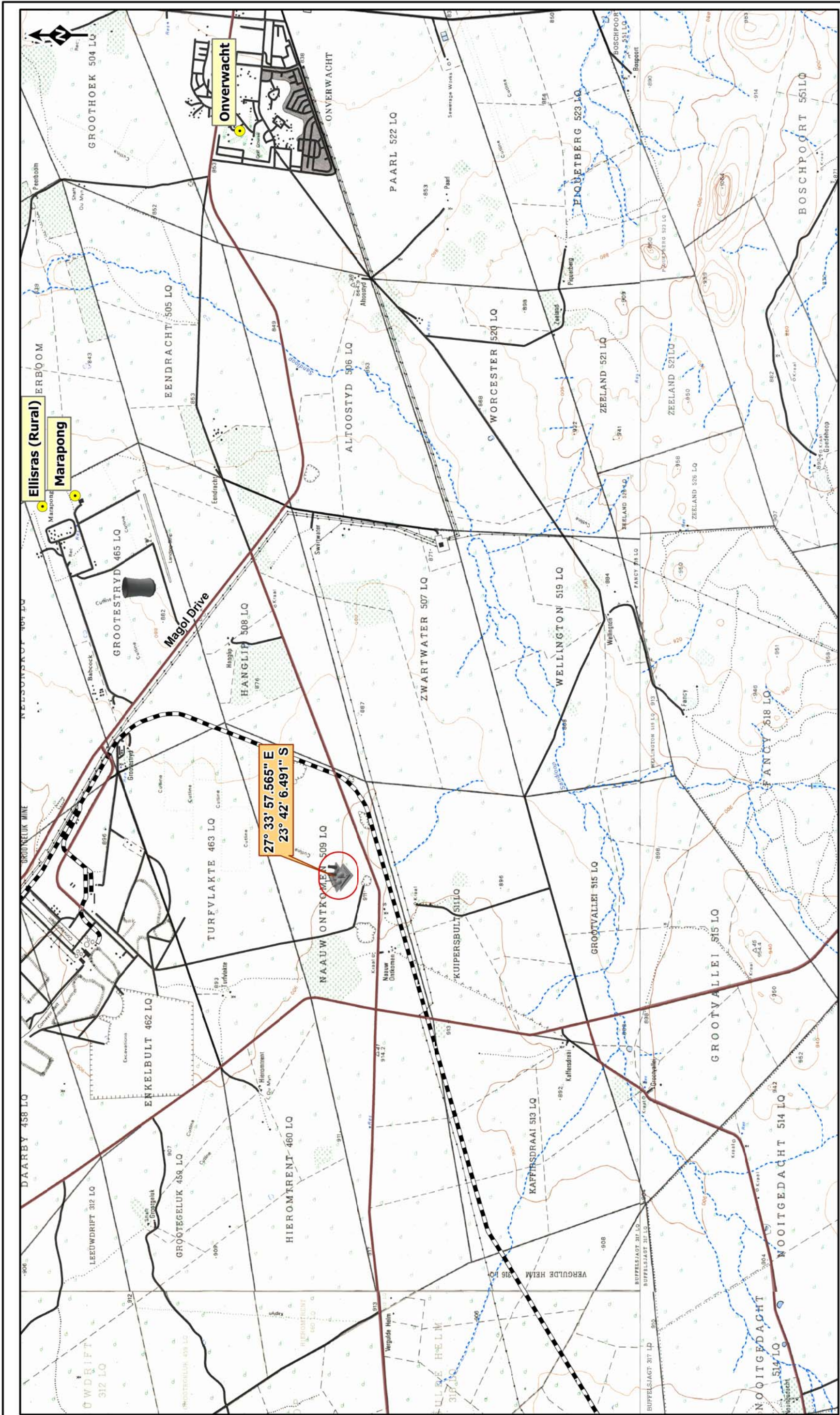
GO TŠEA SEPHETHO (TUMELELO YA TIKOLOGO)

Se se akaretša go tsebiša I&Aps tše di ngwadišitšwego ka ga sephetho seo se tšwago go Mmušo wa Bokgoni, Kgoro ya Merero ya Tikologo (DEA) mo lebakeng le. DEA e swanetše go amogela goba go ganetša pego ye mo matšatšing a 105. Bakgathatema ba tla tsebišwa ka ga sephetho sa DEA ge eba Tumelelo ya Tikologo e filwe goba aowa gape le ka ga mokgwatshepetšo wa ngongorego ge eba ba nyaka go dira ngongorego go sephetho.

Ditshwaotshwao tša gago di bohlokwa

Mohola wa Kelo ya Seabe sa Tikologo ke go fana ka tshedimošo ka botlalo go sehlopha sa go tšea sephetho yeo ba ka go thea sephetho sa bona godimo go fana goba go ganetša ka Tumelelo ya Tikologo gomme ge e fiwa, go hlalosa maemo a tšwetšopele. Dineelano tšeo di filwego ke bakgathatema go tšwa dikarolong ka moka tša setšhaba di tla netefatša sephetho seo se sedimošitšwego.

O mengwa go kgatha tema ka tokologo le go romela ditshwaotshwao dife goba dife goba tshedimšo yeo o ikwago e ka ba mohola go tshepetšo ya EIA. Mekgatlo yeo e ngwadišitšwego ya kgahlego le yeo e amegago e na le toka ya go fa thswaotshwao, ka go ngwala, godimo ga dithomelo ka moka tša go ngwalwa go ya go pušo ya bokgoni (DEA) le go tsebiša pušo ya bokgoni, mathata afe goba afe ao mokgatlo a tshewago gore a ka ba mohola go šedi ya kgopelo.



LEGEND

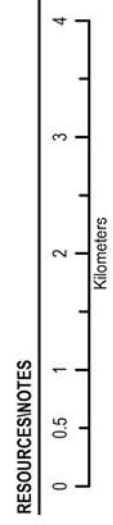
- Place Names
- Medupi Power Station
- Matimba Power Station

ROADS

- Regional road
- Main road
- Secondary road
- Streets and other access

Place Names

- Rail
- Non Perennial Rivers
- Perennial Rivers



PROJECT
MEDUPI FGD

TITLE
LOCALITY MAP

GIS	VR	23/04/2014	PROJECT No. 12949
CHECK	SM	23/04/2014	SCALE 1:65 000
REVIEW		23/04/2014	A3
			REV 0

REFERENCE
PROJECTION GCS WGS 1984

DRAFT

NGWADIŠO LE LETLAKALA LA DITSHWAOTSHWAO

Kelo ya Seabe sa Tikologo le Kgopelo ya Laesense ya Taolo ya Ditšhila ya Tselatshepetšo ya Tsenyogape yeo e šišintšwego ya Hlwekišo ya Gase ya Tšhimini (FGD) Setešieneng sa Medupi sa Mohlagase (DEA Ref.No.: 14/12/16/3/3/3/110)

(e tsentswe ka gare ga Tokumente ya Tshedimošo ya Kakaretšo)

June 2014

Kantoro ya EIA ya Bokgathatema bja Tshedimošo

Nicolene Venter / Bongani Dhlamini
Zitholele Consulting (Pty) Ltd
P O Box 6002, Halfway House, 1685
Tel: (011) 207 2060
Fax: 086-676-9950

E meile: publicprocess@zitholele.co.za

O kgopelwa go tlatša pele ga Mošupologo wa 07 Julae 2014 gomme o buše go Kantoro ya EIA ya Bokgathatema bja Setšhaba (go ya ka moo go laeditšwego ka godimo)

THAETLELE		LEINA	
SEFANE			
MOKGATLO goba TSHEDIMOŠO YA MOAGO			
ATERESE YA POSO		KHOUTU YA POSO	
NOMORO YA MOGALA		NOMORO YA FEKESSE	
NOMORO YA MOGALATHEKENG			
ATERESE YA E-MEILE			

O kgopelwa gore le **ngwadiše semmušo bjalo ka mokgatlo wo o nago le kgahlego le/goba amegago (I&AP)** gore ke kgone go amogela tshedimošo le ditsebišo tshepetšong ya Kelo ya Seabe ya Tikologo

EE

AOWA

Ke rata go amogela ditsebišo tša ka ka

Lengwalo (poso)

Emeile

Fekese

Mogala

Ke rata go amogela ditokumente tša ditshwaotshwao ka tsela ye e latelago

Ka emiele

Godimo ga CD

Go ya ka Melawana ya GNR 543 - 546 – Kuranta ya Mmušo ya 33306 ya 18 June 2010 (**melawana ya tshepetšo ya EIA**) Ke tsebiša kgwebo efe goba efe yeo e lebanego le nna thwii, matlotlo, mong goba dikgahlego dife goba dife tšeo nka ba go le tšona ka go tumelelo goba kganetšo ya kgopelo:



DITSHWAOTSHWAO (o kgopelwa go diriša matlakala a go fapana ge o nyaka)

Ke šišinya gore ditaba tše di latelago di nyakišišwe ka gare ga Kelo ya Seabe sa Tikologo:



Le kgopelwa go ngwadiša badirišanikanna/baagišane ba ba latelago godimo ga datapeisi ya protšeke:

**INTEGRATED ENVIRONMENTAL AUTHORISATION
(Environmental Impact Assessment and Waste Management License Application)
for the proposed Medupi Power Station Flue Gas Desulphurisation Project**

Table 1: Distribution of BIDs and placement of site notices in Lephalale

Item	Description of the location of notice & GPS Coordinates	Picture / Photo
1	BID placed in post box at 35 Bosehla Street, Onverwacht, Lephalale	
2	BID delivered and project discussion with resident at 23 Bosehla Street, Onverwacht, Lephalale.	

**INTEGRATED ENVIRONMENTAL AUTHORISATION
(Environmental Impact Assessment and Waste Management License Application)
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Item	Description of the location of notice & GPS Coordinates	Picture / Photo
3	Mediclinic, Lephalale GPS: S23°41'11.9 E027°41'54.1	
4	Marula Bus Stop, Lephalale GPS: S23°41'21.8 E027°42'04.4	

**INTEGRATED ENVIRONMENTAL AUTHORISATION
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Item	Description of the location of notice & GPS Coordinates	Picture / Photo
5	<p>Super Spar (shopping square), Joe Slovo Street, Lephalale</p> <p>GPS: S23°41'13.7 E27°42'01.4</p>	

**INTEGRATED ENVIRONMENTAL AUTHORISATION
(Environmental Impact Assessment and Waste Management License Application)
for the proposed Medupi Power Station Flue Gas Desulphurisation Project**

Item	Description of the location of notice & GPS Coordinates	Picture / Photo
6	Lephalale Municipality, Cnr Joe Slovo Street & Douwater Avenu, Lephalale GPS: S23°41'11.2 E027°41'47.6	