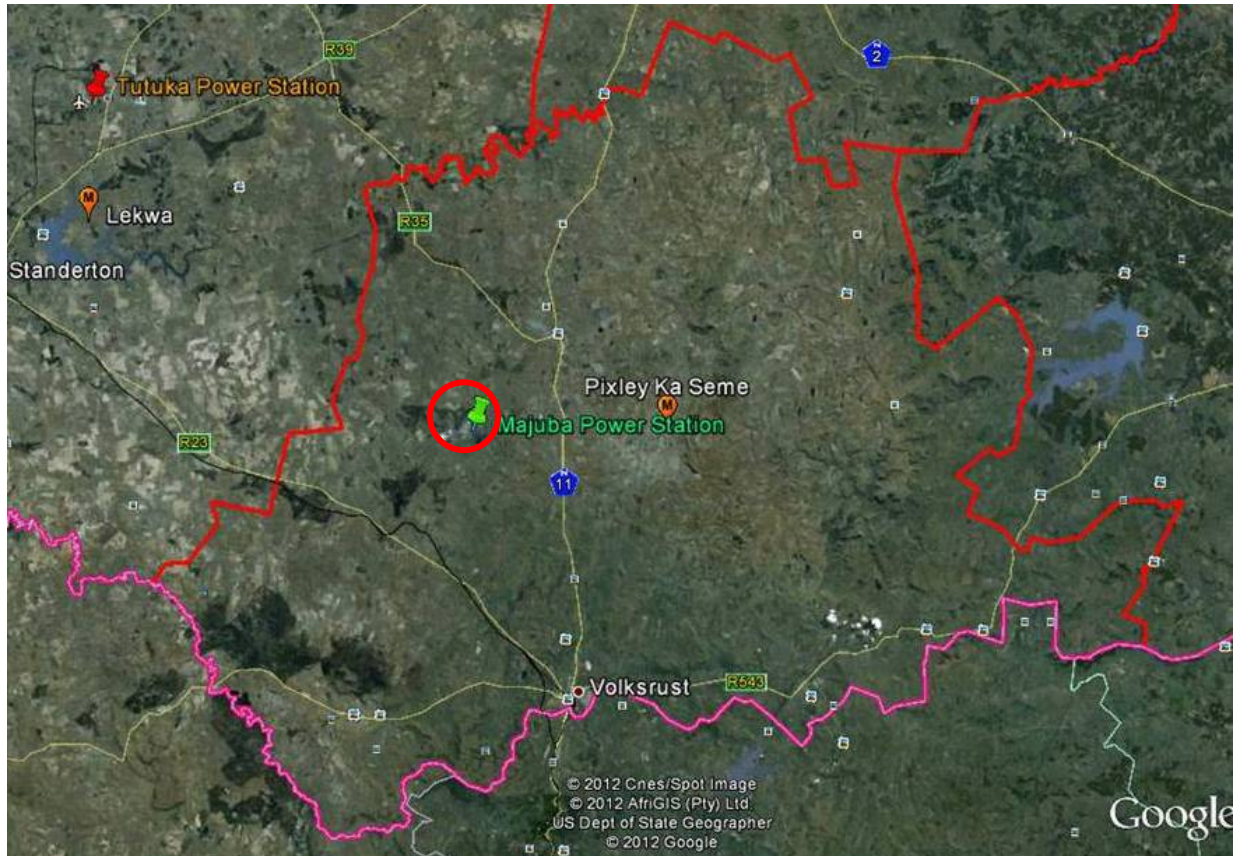


## 1 INTRODUCTION

Majuba Power Station is located near Amersfoort in the Mpumalanga Province and falls within the Pixley Ka Seme Local Municipality (**Figure 1.1**) which falls within the Gert Sibande District Municipality.



**Figure 1.1:** Location of Majuba Power Station within the Pixley Ka Seme Local Municipality

Eskom Holdings SOC Limited (Eskom) is planning to pro-actively align its continued ashing activities with the requirements of the waste licensing processes.

In terms of the Environmental Impact Assessment Regulations, Eskom required the services of an independent environmental consultant to conduct the necessary Environmental Impact Assessment (EIA) processes, for obtaining an environmental authorisation and Waste License from the relevant authorities.

Lidwala Consulting Engineers (SA) (Pty) Ltd (Lidwala) was appointed as the Environmental Assessment Practitioner (EAP) and has been commissioned by Eskom to undertake the EIA and WML licencing process, as per the National Environmental Management Act (Nr. 107 of 1998) and the National Environmental Management Waste Act (Nr. 59 of 2008). Details of all the relevant role-players, including the expertise of Lidwala to carry out the required procedures, have been included in **Chapter 2** of this document. This scoping

report is prepared according to NEMA Regulation 543 Section 28: *Contents of scoping reports*.

## **1.1 Need and Justification for the Project**

Eskom's core business is the generation, transmission and distribution of electricity throughout South Africa. Electricity by its nature cannot be stored and must be used as it is generated. Therefore electricity is generated according to supply-demand requirements. The reliable provision of electricity by Eskom is critical to industrial development and other poverty alleviation initiatives in the country.

If Eskom is to meet its mandate and commitment to supply the ever-increasing needs of end-users in South Africa, one of Eskom's options is to extend the life of its infrastructure of generation capacity and transmission and distribution powerlines.

Ideally, Majuba Power Station, envisages the continuation of dry ash disposal. Prior to the promulgation of Environmental laws such as the Environment Conservation Act, Eskom purchase a portion of land which they envisaged for the disposal of ash for the life of the Station (at that stage 45 years). As part of its planning processes, Eskom developed designs which were approved internally. With the promulgation of the environmental laws such the National Environmental Management Waste Act, Act 59 of 2008, in particular, Eskom would like to pro-actively align its continued ashing activities with the requirements of the waste licensing processes.

## **1.2 Project Background**

The proposed continuous development is an ash disposal facility with the following specifications:

- Capacity of airspace of 174 million m<sup>3</sup>; and
- Ground footprint of 912 ha (existing footprint - 362 ha: 0 – 15 year + envisaged footprint - 550 ha: 15 – 60 year) (Fenced Area including pollution control dams)

This ash disposal facility shall be able to accommodate the ashing requirements of the power station for the next 48 years, to 2060 (these timelines are based on an annual ash production rate of 3.579 million tonnes). The current proposed portion of 550 Ha is located on the Southern portion of the current Majuba Power Station ash disposal facility site boundary. The proposed progressive portion of ash disposal facility will continue from the existing facility, all on Eskom's land within the originally planned ashing area. In order to ensure that the EIA allows for a robust environmental process, all land within a radius of 12km was assessed in order to identify potential alternative sites for ash disposal.

In terms of the EIA Regulations published in Government Notice R543 of 2 August 2010 in terms of Section 24 (5) of the National Environmental Management Act (Act No. 107 of

1998), certain listed activities as set out in Government Notices R544, R545 and R546 and in GN 718 of the National Environmental Management: Waste Act (NEMWA) require environmental authorisation and waste management license before they can proceed.

As mentioned above, Eskom has appointed Lidwala as the EAP to manage the application and to undertake environmental studies together with a team of specialists. Through this process Lidwala and the relevant specialists will identify and assess all potential environmental impacts associated with the proposed Project. Comprehensive, independent environmental studies are required to be undertaken in accordance with the EIA Regulations, in order to provide the relevant authorities with sufficient information to make a decision regarding the granting of an environmental authorisation and waste license.

The environmental studies will follow a three-phased approach in accordance with the EIA Regulations published in terms of the EIA Regulations published in Government Notice R543 of 2 August 2010 in terms of Section 24 (5) of the National Environmental Management Act (Act No. 107 of 1998) i.e.:

- Phase 1: Application
- Phase 2: Environmental Scoping Study (including a screening assessment and the Plan of Study for EIA); and
- Phase 3: Environmental Impact Assessment

This Environmental Scoping Study (part of phase 2) identifies and evaluates potential environmental impacts associated with all aspects of the proposed project. In terms of the EIA Regulations, *feasible and reasonable* alternatives have been discussed within the Scoping Study (refer to **Chapter 4**).

### **1.3 Summary of the EIA Process**

#### **1.3.1 EIA Process**

The EIA process is controlled through Regulations published under the Government Notice No. R. 543 and associated guidelines promulgated in terms of Chapter 5 of the National Environmental Management Act (Act 107 of 1998).

The EIA process as legislated in terms of NEMA and NEMWA is shown diagrammatically in **Figure 1.2**.

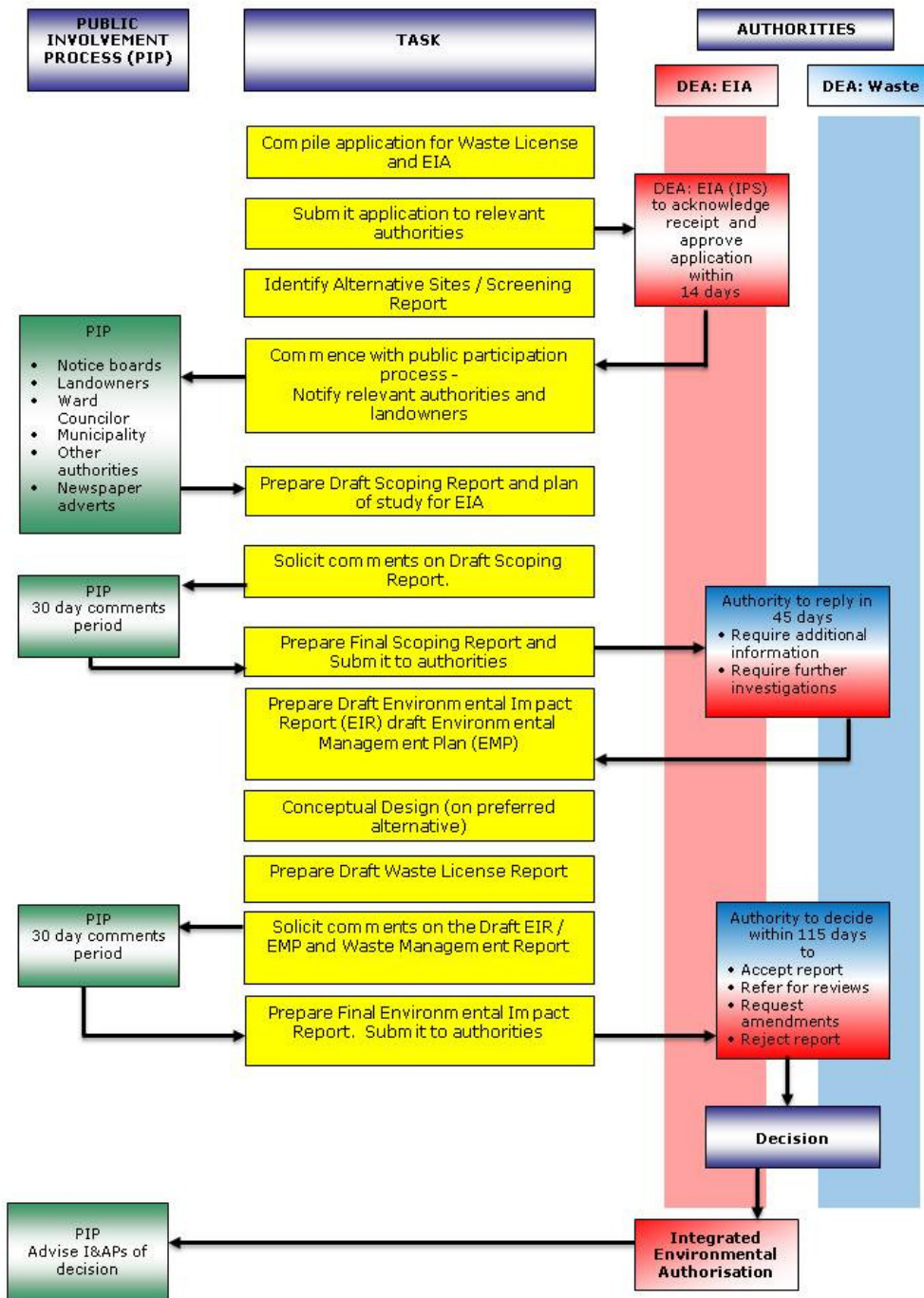
#### **1.3.2 Application Phase**

The Application Phase consists of completing the appropriate application form (in this case an integrated application in terms of NEMA and NEMWA) by the EAP and the proponent as well as the subsequent submission and registration of the Project with the competent

authority. The Department of Environmental Affairs (DEA) has been confirmed as the competent authority, in conjunction with commenting authorities Department of Water Affairs (DWA), as well as the Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET).

The Integrated Application form was submitted to DEA on **20 August 2012**. The EIA reference number allocated to this integrated application is **14/12/16/3/3/3/53**. In addition to the EIA reference number a NEAS Reference number (**DEA/EIA/0001417/2012**) was also allocated. These reference numbers are to appear on all official correspondence with the authorities regarding this project.

A copy of the integrated application form and the Acknowledgement of Receipt of the Application are included in **Appendix A** and **Appendix B** respectively.



**Figure 1.2:** Environmental Impact Assessment Process for an Integrated Application

### 1.3.3 Scoping Phase

The scope of an environmental assessment is defined by the range of issues and alternatives to be considered, and the approach towards the assessment that will follow. The characteristics of a scoping exercise are as follows:

- It is an open process that involves the authorities, the proponent, stakeholders and I&APs;
- Feasible and reasonable alternatives are identified and selected for further assessment;
- Important characteristics of the affected environment are identified;
- Significant issues that are to be examined in the assessment procedure are identified; and
- It provides the basis for determining terms of reference for the assessment procedure.

At the end of the Scoping Phase a Scoping Report is compiled. As required by regulation, a Draft Scoping Report (DSR) must first be compiled which provides the public an opportunity to comment prior to submission of the Final Scoping Report (FSR) to the authorities. **This report is the Final Scoping Report.**

a) *Draft Scoping Report*

The aim of the Draft Scoping Report is to document the outcome of the Scoping Phase. The Draft Scoping Report included report included *inter alia*:

- Contact details and expertise of the environmental assessment practitioner undertaking the scoping process (**Chapter 2**)
- Details of the proposed Project (**Chapter 3**);
- Details on alternatives for the proposed Project (**Chapter 4**);
- Description of the key legislation and guidelines potentially applicable to the proposed activity (**Chapter 5**);
- Details of the stakeholder engagement process conducted including a summary of issues raised through the process to date (**Chapter 6**);
- A register of Interested and Affected Parties (**Appendix F**);
- A description of the receiving environment (**Chapter 7**);
- A description of the environmental issues and impacts associated with the proposed Project and alternatives which have been identified (**Chapter 8**);
- A description of the issues that require further investigation (**Chapter 8 and 10**);
- A description of the methodology to be used in the assessment of impacts (**Chapter 10**); and
- A Plan of Study (PoS) for the EIA which will include a description of the public participation process to be undertaken and terms of reference for the identified specialist studies required within the EIA phase (**Chapter 10**).

b) *Final Scoping Report*

Once the draft Scoping Report was reviewed by Interested and Affected Parties, comments were collected and responded to, and the report has been amended accordingly (where required) and finalised.

### **1.3.4 EIA or Assessment Phase**

Once the Final Scoping Report and the PoS for EIA have been submitted to and accepted by DEA the Project will proceed into the detailed EIA or Assessment Phase which involves more detailed specialist investigation.

Lidwala will produce a Draft Environmental Impact Report (EIR) after the completion of all the specialist studies. The Draft EIR is subject to public comment for a period of 30 days. The Draft EIR will provide an assessment of all the identified key issues and associated impacts from the Scoping Phase.

During the EIA phase the Waste License application report will also be compiled along with the conceptual designs for the preferred site. These reports will also be subject to public review concurrently with the EIA Report.

#### *a) Draft Environmental Impact Report*

The Draft EIR would contain, *inter alia*, the following:

- Contact details and expertise of the environmental assessment practitioner undertaking the EIA process;
- A detailed description of the proposed activity;
- A description of the affected environment including a description of the affected properties;
- A description of the ongoing public consultation process;
- A description of the need and desirability of the proposed activity;
- An indication of the methodology used in determining the significance of potential environmental aspects;
- A comparative assessment of the feasible alternatives;
- A summary of the findings and recommendations of any specialist report or specialised processes;
- An assessment of the impacts in terms of nature of the impact, extent, duration, intensity and probability;
- An assessment of cumulative impacts;
- The determination of the significance of the impacts;
- A description of environmental management and mitigation measures;
- A description of assumptions, uncertainties and gaps in knowledge;
- An environmental impacts statement including a summary of the findings and a comparative assessment of the positive and negative implications of the Project activity and identified alternatives;
- A draft Environmental Management Plan (EMP); and
- Copies of specialist reports and reports on specialised processes (if required).

*b) Final EIR*

Once the Draft EIR has been reviewed by Interested and Affected Parties, comments will be collected and responded to and the report will be amended accordingly and then finalised.

**1.4 Way Forward**

The Draft Scoping Report was distributed for public comment for a period of 30 calendar days. All comments on the document were considered and a response provided within a Comments and Response Report prior to submission of the FSR to the relevant authorities for consideration.

It is anticipated that DWA and MDEDET will provide comments to DEA on the adequacy of the DSR, and DEA will consider these comments prior to making a decision on the adequacy of the report. If the report is adequate then DEA will instruct the EAP to continue on to the next phase of the EIA process.