



**Royal
HaskoningDHV**
Enhancing Society Together

Appendix E: Authority Consultation

**Department of
Environmental Affairs**



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

NEAS Reference: DEAEIA/0001442/2012

Reference: 14/12/16/3/3/56

Enquiries: Mmatlala Rabothata

Tel: 012 395 1788/1694 Fax: 012 320 7539 E-mail: mmatlala@environment.gov.za

Malcom Roods
SSI Engineers and Environmental Consultants (Pty) Ltd
PO Box 867
GALLO MANOR
2052

Fax: 011 798 6010
Tel: 011 798 6442

PER FACSIMILE / MAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING & EIA PROCESS) FOR THE PROGRESSIVE ASHING AT THE EXISTING ASH DISPOSAL FACILITIES AT THE MATIMBA POWER STATION ASH DISPOSAL FACILITY, LEPHALALE, LIMPOPO PROVINCE

The Department confirms having received the Integrated Application Form; details of EAP and Declaration of Interest; project schedule and locality map on 3 September 2012 for environmental authorisation for the abovementioned project. The Application is accepted.

Please include both reference numbers (NEAS Reference and DEA Reference), as listed above, on all documents and correspondence submitted to the Department.

In addition, please consider the following during compilation of reports for this application for environmental authorisation:

- All applicable Departmental Guidelines must be considered throughout the application process. These can be downloaded from the Department's website: www.environment.gov.za, Environmental Impact Management button, listed under "EIA Administration": Integrated Environmental Management Information Series link. These include, but are not limited to, the following topics: Scoping, Environmental Impact Reporting, Stakeholder Engagement, Specialist Studies, Impact Significance, Cumulative Effects Assessments, Alternatives in EIA and Environmental Management Plans.
- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to

determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).

- Should water, solid waste removal, effluent discharge, stormwater management and electricity services be provided by the municipality, you are requested to provide this office with written proof that the municipality has sufficient capacity to provide the necessary services to the proposed development. Confirmation of the availability of services from the service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the EIR. This EMPr must not provide recommendations but must indicate actual remediation activities which will be binding on the applicant. Without this EMPr the documents will be regarded as not meeting the requirements and will be returned to the applicant for correction.
- The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 240(2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the National Water Act, 1998 (Act 36 of 1998).
- Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Basic Assessment Report/Environmental Impact Assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

You are required to submit the final site layout plan together with the Final EIR to the Department. All available biodiversity information must be used in the finalisation of the layout plan.

The Environmental Management Programme (EMPr) submitted as part of the application for environmental authorisation must include the following:

- All recommendations and mitigation measures to be recorded in the Final EIR.
- A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- An open space management plan to be implemented during the construction and operation of the facility.

- A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

You are requested to submit two (2) electronic copies (the main report must be separated from the Appendices (each appendix saved separately) (CD/DVD) and two (2) hard copies of both the Draft and Final Report to the Department. The hard copies must be double-sided printed; double-punched and must be bound using a lever arch file (two or four holes).

The EAP must, in order to give effect to regulation 56 (2), before submitting the final EIR to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing within 21 days.

In terms of regulation 67 of the EIA Regulations, 2010 this application will lapse if the applicant (or the EAP on behalf of the applicant) fails to comply with a requirement in terms of the Regulations for a period of six months after having submitted the application, unless the reasons for failure have been communicated to and accepted by this Department.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

~~Mmatlala~~
Mr Mark Gordon

Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Letter signed by: Ms Mmatlala Rabothata

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 17/09/12

CC:	Deidre Herbst	Eskom	Tel: 011 800 3501	Fax: 086 660 6092
	Mrs Maria Cocquyt	Lephalale Local Municipality	Tel: 014 762 1423	Tel: 014 763 5662



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

NEAS Reference: DEA/EIA/0001442/2012

Reference: 14/12/16/3/3/56

Enquiries: Mmatlala Rabothata

Tel: 012 395 1768/1694 **Fax:** 012 320 7539 **E-mail:** mrabothata@environment.gov.za

Malcom Roods
SSI Engineers and Environmental Consultants (Pty) Ltd
PO Box 867
GALLO MANOR
2052

Fax: 011 798 6010

Tel: 011 798 6442

PER FACSIMILE / MAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT OF AN AMENDED APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING & EIA PROCESS) FOR THE PROPOSED CONTINUOUS ASH DISPOSAL FACILITY FOR THE MATIMBA POWER STATION IN LEPHALALE, LIMPOPO PROVINCE

The Department confirms having received the amended Application Form (amending project title and listed activities applied for to be authorised) on 15 May 2013 for environmental authorisation for the abovementioned project.

You are hereby reminded that the activity may not commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

Mr Mark Gordon

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

Letter signed by: Ms Mmatlala Rabothata

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 05/06/13

**Department of Water and
Sanitation**

Minutes of the Pre Application Meeting for the Proposed Matimba Power Station Ash Disposal Facility - Integrated Water Use License Application

Date: 04 December 2013

Venue: Matimba Power Station

Time: 10h00

Present:

Didi Masoabi (DM) - Project Manager (WULA process), Royal HaskoningDHV

Felicia Sono (FS) – Water Use Advisor, Eskom Holdings SOC Limited

Ash Seetal (AS) - Project Principal (WULA process), Royal HaskoningDHV

Tebogo Kubyane (TK) – Eskom Matimba PS

Mahlatje Malegodi (MM) – DWS

1. Introductions

FS chaired the meeting and asked everybody to introduce themselves

2. Attendance and apologies

3. Health and Safety

TK addressed the Safety and Health aspects.

4. Brief background on the project on proposed Ash Dump Extension

FS indicated that the WULAs to be discussed are the following:

- ACC Cooling;
- Ash dump extension; and
- Other Matimba IWUL amendments.

However she emphasised that this meeting serves as a Pre-Application for the Ash dump extension.

DM gave a brief background on the project.

- Matimba PS is a 3990 MW installed capacity coal-fired power station and was commissioned in the late 1980s. It is located on the Zwartwater farm land, having a total extent of 1200ha.
- The existing continuous ash disposal site covers total area of approximately 1200ha. Of the total area, 920ha is designated for ash disposal and approximately 300ha has been used thus far. Initially the ash disposal facility was authorised for 10 years. Now with the expansion of the life of the Power Station, it necessitated the increase of the life of the ash disposal facility to 44 years.
- A new ash disposal facility is required in order to ensure that the power station is able to accommodate the ashing requirements for the remaining life-span (44 years) of the power station.
- Matimba PS intends to apply for a water use licence to Continue ashing on the existing site (Ash dump extension).
- **DM** indicated that the identified water uses are:
 - Sec 21 (c) and (i);
 - Sec 21 (e); and
 - Sec 21 (g)
- The specialist studies identified and underway are:

- Surface Water Assessment;
- Geohydrological Assessment;
- Hydrological Assessment;
- Social Opinion;
- Geology and Geotechnical Assessment; and
- Environmental Engineering
-
- DWS requested that the designs must be signed and approved by a registered Pr Eng.
- **FS** asked if all of these studies are necessary OR can some studies be eliminated?
- **MM** indicated that he cannot provide an answer immediately. However it will be proper to summarise the available specialist reports and submit it to DWS for comments. He mentioned that the Construction Method Statement is very important as it helps in understanding the project during and after construction.
- **MM** asked whether the application will be in phases or combining all the applications in one?
- **FS** indicated that there will be different applications for each project.
- **MM** requested that a letter indicating reasons for separate applications should be submitted to DWS.

ACC COOLING SYSTEM

FS mentioned that there is a problem with their ACC Cooling System especially when it's very hot as it underperforms. As a result more water than what is authorised is needed for the system.

MM indicated that a new licence for their cooling system should be lodged and that this will not be an amendment.

THE AMENDMENT OF THE EXISTING LICENCE

FS indicated that the names of the containment facilities were wrongly documented in one of their licences. She wanted to know how this issue is addressed. **MM** indicated that the licence will have to be amended since it's only a change in names. He further explained that if it was a change in volumes or capacities, then it would require a new application.

5. Tasks and Timeframes

- Write the following letters to DWS with regards to the following:
 - A letter motivating and providing reasons why there will be three separate applications from Eskom;
 - A letter indicating the amendment of the existing licence; and
 - A letter speaking to the new ACC Cooling System licence application.
- Prepare a summary on the contents of the available specialist studies and submit to DWS for comments.

6. Closure

Meeting was closed at 14:00.

To: Ms L Kobe
REGIONAL CHIEF DIRECTOR: LIMPOPO
Department of Water Affairs
Private Bag X 9506
POLOKWANE
0700

Date:
27 January 2014

Enquiries:
F. Sono
+27(0)11 800 8652

Ref: ENV14-L031

Dear Ms. Kobe

MATIMBA POWER STATION: CONTINUOUS ASHING WATER USE LICENCE APPLICATION

Matimba Power Station commissioned in the late 1980's, is a dry-cooled power station and 3990 MW installed capacity base load coal-fired power station situated in Lephalale. The power station was issued with the Integrated Water Use Licence (IWUL), reference No. 16/2/7/A400/B21/1 in November 2008. Amongst the water uses the power stations is authorized is the Section 21(g) for the disposal of the ash on Zwartwater farm.

The Zwartwater Farm is situated approximately 3 km south of the power station. Condition 1.4, Annexure V of the IWUL authorizes the power station to dispose a maximum quantity of five million tons per annum of ash into the Zwartwater Farm. The power station currently disposes 4.6 million tons of ash per annum.

The footprint authorized for ashing on the Zwartwater farm 507LQ is 920 ha but currently, 300 ha has already been covered with ash. Matimba Power Station requires the remaining 651 ha of the virgin land on Zwartwater farm to continue with ashing for the remaining lifespan of the power station which is estimated to be 44 years.

To comply with the National Water Act (No. 36 of 1998), Matimba Power Station will be submitting the water use licence application to the Department of Water Affairs for authorization of the following water uses:

- Section 21(g) - for the extension part of the Zwartwater Ash Dump and additional pollution control dam to capture runoff and seepage from the ash dump; and
- Section 21 (c&i) for the construction of the ash dump within 100m radius of the non-perennial stream.

Project Description

Matimba Power Station requires additional remaining 651 ha of the virgin land on farm Zwartwater to continue with ashing for the remaining lifespan of the power station which is estimated to be 44 years. The specifications of the continuous ashing facility will comprise of:

- Airspace with a capacity of 297 million m³ (remaining)

Sustainability Division
Environmental Management
Megawatt Park Maxwell Drive Sunninghill Sandton
PO Box 1091 Johannesburg SA
Tel +27 11 800 3501 Fax +27 86 660 6092 www.eskom.co.za

Eskom Holdings SOC Limited Reg No 2002/015527/06

- Ground / development footprint of 651 ha (remaining fenced area including pollution control dams and other infrastructure e.g. conveyor belts)
- A new ash disposal facility will need to have the following typical infrastructure constructed:
 - Storm water control dam (these will be constructed as per the GN 704 of the National Water Act (No. 36 of 1998);
 - Storm water control berms; and
 - Access roads to, on and around the facility. These include temporary roads during construction and permanent roads during the operation.

The design of the ash dump site will be dependent on aspects such as the results of the ash classification study, topography, geotechnical and the thermal studies that are undertaken or still underway.

The Environmental Authorisations

In addition to comply with the National Water Act (No 36 of 1998), Matimba Power Station is also required to comply with the provisions of the National Environmental Management Act [NEMA] (No.107 of 1998) (as amended). The project will also be aligned with the National Environmental Management: Waste Act [NEMWA] (No. 59 of 2008).

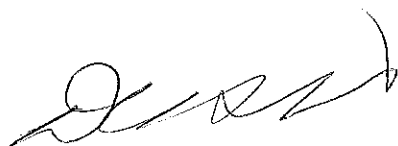
Matimba Power Station has commenced with the Environmental Impact Assessments (EIA) studies of the proposed continuous ashing facility. The scoping report of the EIA is out for public review. Some of the specialist studies which have been conducted as part of the EIA which are critical for the purpose of the water use license application include: **See attachment for review of Specialist reports.**

Proposed Programme for the IWULA

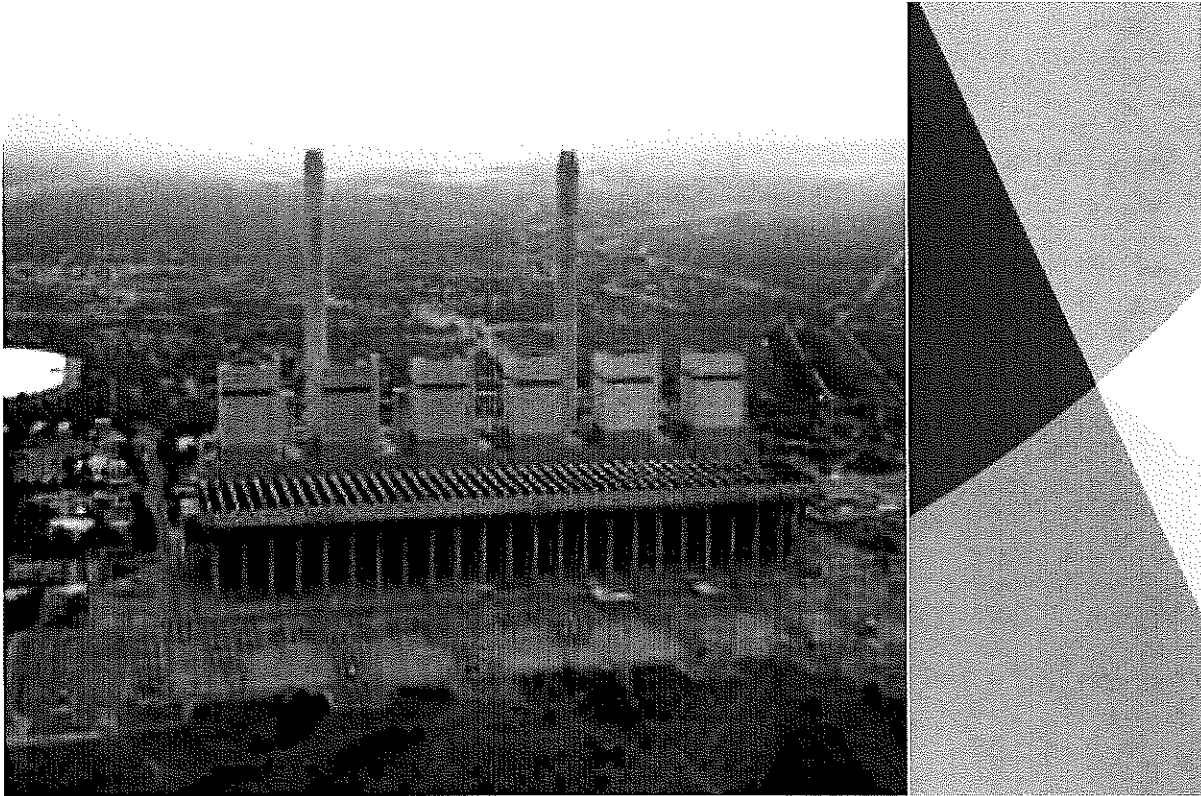
Item	Timeframes
Pre-consultation Meeting with DWA	06 Dec 2013 (Completed)
Letter to indicate specific sec 21 uses (impacts and risks)	24 Jan 2014
WULA pre-submission Workshop	26 March 2014
WULA submission	14 May 2014
Response letter on completeness of the application	02 June 2014

Against the background provided, Matimba Power Station would like to obtain comments from the department regarding the specialist studies summarized in the attachment.

Yours sincerely



Deidre Herbst
ESKOM ENVIRONMENTAL MANAGER



Summary Review of Specialist Reports relevant to WULA undertaken during the Scoping phase for the proposed construction of a continuous ash disposal facility for the Matimba Power Station

Client: Matimba Power Station

Date: December 2013



DOCUMENT DESCRIPTION

Client:

Eskom Holdings SOC Ltd

Matimba Power Station

Project Name:

Summary review of Specialist Reports relevant to WULA process – Studies undertaken during the Scoping phase of the proposed construction of the continuous ash disposal facility for Matimba Power Station.

Royal HaskoningDHV Reference Number:

N/A

Compiled by:

Didimalang Masoabi

Date:

December 2013

Location:

Johannesburg

Review & Approval:



Signature

© Royal HaskoningDHV

All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, without the written permission from Royal HaskoningDHV.

Table of Contents

1	INTRODUCTION AND SCOPE OF WORK.....	1
2	BACKGROUND OF APPLICATION.....	1
2.1	Brief background.....	1
3	SPECIALIST STUDIES UNDERTAKEN	2
3.1	Surface Water Assessment	2
3.1.1	Key findings.....	2
3.2	Hydrogeological Assessment	2
3.2.1	Key findings.....	3
3.3	Geology and Geotechnical Assessment.....	4
3.3.1	Key findings.....	4
3.4	Storm Water Management Plan.....	4
3.4.1	Key findings.....	4
3.5	Biodiversity Assessment.....	5
3.5.1	Botanical assessment.....	5
3.5.2	Faunal assessment.....	5
3.5.3	Ecological impact assessment.....	6
3.6	Engineering designs.....	6
4	CONCLUSIONS	6

No table of figures entries found.

No table of figures entries found.

1 INTRODUCTION AND SCOPE OF WORK

Royal HaskoningDHV (RHDHV) formerly known as SSI Engineers and Environmental Consultants was appointed by Eskom Holdings SOC Ltd (Matimba Power Station) to provide professional services and undertake a review of Specialist studies relevant to the Water Use License Application (WULA) process. These studies were undertaken during the Environmental Scoping study process.

2 BACKGROUND OF APPLICATION

2.1 Brief background

Matimba Power Station, located in the Limpopo Province close to Lephalale (Ellisras), is a 3990MW installed capacity base load coal fired power station, consisting of 6 units. Matimba is a direct dry cooling power station, an innovation necessitated by the severe shortage of water in the area where it is situated. The station obtains its coal from the Exxaro Grootegeluk Colliery for the generation of electricity.

Ash is generated as a by-product from combustion of coal from the power station and Matimba produces approximately 4.8 million tons of ash annually. This ash is currently being disposed by means of 'dry ashing' approximately three kilometres south of the Matimba power station on the Eskom owned Farm Zwartwater 507 LQ.

Matimba Power Station envisages the continuation of ash disposal (dry ashing) and therefore, Eskom requires the licensing of its proposed continuous ash disposal facility in terms of the National Environmental Management Waste Act (NEM:WA), Act 59 of 2008 and the EIA Regulations (2010) promulgated under the National Environmental Management Act (NEMA) Act 107 of 1998 (as amended) and the National Water Act (NWA), Act 36 of 1998.

The continuous ash disposal facility will be developed with the following specifications:

- Capacity of airspace of 297 million m³ (remaining); and
- Ground footprint of 651 Ha (Remaining fenced Area including pollution control dams).
- This ash disposal facility will be able to accommodate the ashing requirements of the power station for the next 44 years.

However, the EIA process requires the investigation of alternatives and as such an 8km technically feasible radius was delineated from the Matimba Power Station (source of the ash) to identify any potential alternative sites. It is within this 8km radius that a technically feasible and environmentally least sensitive site/s has to be identified. Two Alternative Sites were considered, namely Alternative Site 1 and 2.

3 SPECIALIST STUDIES UNDERTAKEN

3.1 Surface Water Assessment

A surface water screening study was undertaken by RHDHV in the scoping phase of the project in order to determine the nature and level of risk to surface water features posed by the expansion of the Matimba Power Station Ashing Facility. The screening facility identified surface water features within the footprint of both alternative sites for the expansion of the Ashing facility, hence it was determined that a more detailed surface water study would need to be undertaken in the EIR-phase (impact phase) of the EIA.

- Surface water mapping was done and their characteristics determined; and
- Potential impacts on surface water were identified, and mitigation measures provided; ie:
 - Potential loss of riparian and wetland habitat;
 - Storm water related impacts;
 - Construction related impacts; and comparative assessment of the site alternatives.

3.1.1 Key findings

Surface water drainage is relatively poorly defined in the study area and there is a low drainage density. The low drainage density is likely to be due to the flat terrain, along with the sandy nature of soils and relatively low rainfall. The largest drainage feature which is the Sandloop (a tributary of the Mokolo) is itself relatively poorly defined in terms of its hydromorphological structure and is episodic in nature. The only perennial river in the wider area is the Mokolo draining the Waterberg hills to the south where a greater amount of rainfall occurs. The proposed development is expected to be too distant to adversely affect this river, although it is a downstream surface water receptor.

Typical wetlands were found to be rare in the context of the two sites and the intervening area, with hydric soils only occurring within very limited parts of the sites, including within depressions along certain of the drainage lines on the sites and within a small isolated pan wetland on the Alternative 2 site.

From a surface water perspective, the Alternative 1 site is strongly preferred for a number of reasons, most important of which are the smaller size of the riparian area potentially affected on Alternative 1, and the more impacted state of the wider drainage line and its catchment on the Alternative 1 Site as compared to the Alternative 2 Site.

3.2 Hydrogeological Assessment

GCS was appointed by Royal HaskoningDHV as a groundwater specialist to undertake the hydrogeological investigation associated with the proposed Matimba Power Station continuous ash disposal facility. An initial desktop study was followed by detailed site investigations of non-intrusive, intrusive and the characterisation nature of the proposed continuous ash disposal facility for Matimba Power Station.

GCS assessed all available geological and hydrogeological data as part of the hydrogeological investigation within the study area (8km radius with the Matimba Power Station as the centre point). All existing groundwater data obtained from previous GCS projects, data provided by the client as well as government data was reviewed and included as part of the assessment.

The following were looked at:

- Topography, Hydrology, Geological and Hydrogeological settings for the area;
- Sensitivity mapping (where sensitive areas were identified);
- Detailed hydrogeological investigation for the two alternative sites;
 - A detailed hydrocensus was undertaken;
 - New boreholes were sited and drilled for improved monitoring;
 - Groundwater level and flow direction determined;
 - Aquifer testing; and
 - Boreholes were sampled so as to determine the chemical quality of the groundwater;
- Risk assessment undertaken; and
- Proposed groundwater monitoring plan developed.

3.2.1 Key findings

A review of the chemistry of the monitoring boreholes sampled at Alternative site 1 indicated a general trend with similar parameters which generally exceeded the drinking water limits. Most of these parameters indicated very high concentrations of conductivity; TDS; chloride; sulphate; calcium; sodium; manganese and magnesium. A comparison in the groundwater chemistry was made between the boreholes surrounding site Alternative 1 and site Alternative 2, and it was found that the concentrations of the problematic parameters in general were much lower than those associated with boreholes surrounding site Alternative 1.

A total of 11 boreholes were identified in close proximity to Alternative site 1 and 16 in close proximity to Alternative site 2.

During the sensitivity mapping process, sensitive areas were identified, ie: structural faults; production boreholes and a buffer area of 100 metres from the rivers within the 8km buffer.

Based on the risk rating of the site, Alternative site 1 is favoured over Alternative site 2 due to the fact that:

- Groundwater levels are slightly deeper than Alternative site 2;
- Presence of intrusive lithologies – Further distance to intrusive lithologies in comparison to Alternative site 2;
- Proximity of production boreholes – Only 1 production borehole was identified in the 2km radius of the site compared to the 13 hydrocensus boreholes in use surrounding Alternative site 2; and

- Existing water quality – The risk rating of Alternative site 1 is reduced by placing the proposed ash disposal facility adjacent to the existing ash disposal facility as the water quality has already been compromised due to the presence of the ash disposal facility.

3.3 Geology and Geotechnical Assessment

Kai Batla Holdings (KBH) was appointed by RHDHV to provide an assessment of the potential impacts on geology associated with the proposed construction of the Matimba continuous ash disposal facility.

The scope included the geological investigations of the study areas (Alternative sites 1 and 2), and recommendations provided for the avoidance or mitigation of negative impacts, where possible. Recommendations for stability, earthworks, drainage, materials excavatability/rippability, foundations materials usage and subgrade treatment for roads and parking areas were also provided. Comparisons of both site alternatives were made and reasons provided for development of the preferred site.

3.3.1 Key findings

The general geology of Alternative site 1 is characterised by Aeolian (wind-blown) sands of the Karoo Supergroup, which overlie conglomerate and sandstone bedrock of the Waterberg Group, Sandriviers Formation. The general geology of Alternative Site 2 is characterised by colluvial sandy soils and Aeolian (wind-blown) sands of the Karoo Supergroup, which overlie pedogenic soils (calcrete) and sandstone bedrock of the Ellisras Basin, Clarens Formation.

Groundwater was not encountered across the study area (Alternatives Sites 1 and 2) during the course of the field investigation. However, it is anticipated that a perched groundwater table will be encountered across the study area during high rainfall events, typically in the range 1.0 to 3.0 metres below existing ground level.

The investigation considered both site alternatives as stable and suitable for development provided that the recommendations given in the report were adhered to, and therefore Alternative Site 1 was determined to be best suited for the proposed ash disposal facility. This decision was also informed by the geotechnical investigation that was undertaken.

3.4 Storm Water Management Plan

GCS has been appointed by Royal Haskoning DHV to conduct a Storm Water Management Plan for the Matimba Continuous ash disposal facility for the Matimba Power Station. This Storm Water Management Plan Report makes up a part of a larger Report titled, 'Matimba Ash Facility Hydrological Assessment' (GCS, 2013). The Storm Water Management Plan was compiled in accordance with the Department of Water Affairs (DWA) BPG G1: Storm Water Management (DWA, 2006a).

3.4.1 Key findings

A conceptual plan for each proposed alternative site was developed and it indicated that Alternative Site 1 requires a PCD storage capacity for a dam that spills on average only once in 50 years with a capacity of 203 600 m³.

For Alternative Site 2, a single, large pollution control dam is recommended to the north of the dump site and below all likely spoil heaps. A reduced ash disposal site area would lead to a reduced PCD of approximately 180 000 m³ capacity.

3.5 Biodiversity Assessment

Bathusi Environmental Consulting cc was appointed by RHDHV as independent ecologists to conduct an ecological scoping/ screening assessment of the study area and compile an impact identification report for the terrestrial biodiversity component of this project. The main aim of the study was to evaluate the intrinsic biodiversity sensitivities of each of the sites and recommend a preferred option for the proposed project.

3.5.1 Botanical assessment

Site Alternative 1: Vegetation of this alternative is pristine and representative of the regional vegetation type. A high connectivity to adjacent pristine savanna habitat is noted to the south. Protected tree species are abundant within this area. Habitat located to the south of this site is regarded sensitive, including riparian woodlands. It is possible, although unlikely, that these sensitive habitat types could be affected adversely by the extension of the existing ashing facility. Loss of natural (pristine) habitat from development of the ashing facility is regarded more significant than for Site Alternative 2. A medium-high floristic sensitivity is therefore estimated for all natural vegetation of this site.

Site Alternative 2: Habitat of this unit is regarded slightly degraded due to persistent high grazing pressure. In particular, the herbaceous layer includes dominant weeds and indicator species of poor habitat conditions. Habitat diversity within this area is also lower compared to Site Alternative 1 and the loss of habitat from this site is therefore not regarded as significant. Ecological connectivity of this site is good; being surrounded by natural woodland habitat. However, visual observations indicate that similar poor habitat conditions prevail in surrounding areas. Importantly, no existing infrastructure is available for the transportation of ash to this area, implying that an additional conveyor section needs to be constructed. This will result in increased habitat fragmentation. This factor was included in the preference ranking for the respective sites. A medium floristic sensitivity is therefore estimated for all natural terrestrial vegetation of this site.

Upon consideration of the botanical factors, Alternative 2 is regarded more suitable compared to the Alternative 1. The potential loss of sensitive habitat from Alternative 1 will be more significant than for Alternative 2.

3.5.2 Faunal assessment

Site Alternative 1 is located next to the existing ashing facility. The eastern third of the study area is characterised by artificial faunal woodland habitat (low faunal sensitivity). The remaining (approximately) two thirds of Site Alternative 1 include *Kyphocarpa angustifolia* – *Eragrostis rigidior* Woodland (medium-high faunal sensitivity), *Nymphaea* – *Schoenoplectus* impoundments (medium-high faunal sensitivity) and *Portulaca* – *Oldenlandia* sheetrock faunal habitat (high faunal sensitivity). A higher habitat diversity is associated with this site; while the status of the habitat is also in a better condition.

Site Alternative 2 is situated northeast of the Grootegeluk opencast coalmine. Most of the study area (Site Alternative 2) is characterised by *Vernonia – Panicum maximum* degraded woodland faunal habitat (medium faunal sensitivity). Some areas of artificial woodland habitat (low faunal sensitivity) is evident, also two small *Nymphaea – Schoenoplectus* impoundments (medium-high faunal sensitivity). Site Alternative 2 does not include any faunal habitat fragments of high faunal sensitivity. Lower habitat diversity and variability is associated with Site Alternative 2, hence a moderate faunal sensitivity is ascribed to this option.

In this case, Alternative 2 is regarded more suitable compared to the Alternative 1.

3.5.3 Ecological impact assessment

The impact assessment was aimed at presenting a description of the nature, extent and significance of identified impacts on the ecological environment. No impacts were identified that could lead to a beneficial impact on the ecological environment of the study area since the proposed development is largely destructive, involving the alteration or degradation of habitat that is currently in a natural status.

Impacts associated with the proposed development falls within three categories, namely:

- Direct, immediate and highly significant impacts, also of a permanent nature;
- Indirect, referred and moderate significant impacts; and
- Cumulative, permanent and highly significant impacts.

Results of the impacts assessment clearly indicated that expected and likely impacts within both of the proposed site alternatives are regarded severe, particularly direct impacts associated with the construction phase. Site Alternative 1 constantly exhibits a higher sensitivity towards the proposed development. Ultimately, both site alternatives exhibit aspects of biodiversity importance, but expected and likely impacts associated with the development and operation on Alternative 1 is regarded more significant than for Alternative 2.

In general, the Biodiversity assessment study indicated that Site Alternative 2 is preferred to Alternative 1.

3.6 Engineering designs

The engineering design for the continuous ash dump has been commissioned, and we still awaiting finalisation. The report will be forwarded to the department for comments after completion.

4 CONCLUSIONS

Four out of five studies reviewed here indicated Site Alternative 1 as the preferred site for the proposed construction of the continuous ash disposal facility for Matimba Power Station. The Biodiversity Assessment study indicated that Site Alternative 2 is preferred.

Minutes of the Meeting for the Proposed Matimba Power Station Ash Disposal Facility - Integrated Water Use License Application

Date: 27 May 2015
Venue: DWS Limpopo Offices,
Time: 10h30

Present:

Mahlatji Malegodi (MM) – DWS Official (responsible for Lephalale Area/Mokolo catchment)

Felicia Sono (FS) - Senior Environmental Advisor (WULA), Eskom

Didi Masoabi (DM) - Project Manager (WULA process), Royal HaskoningDHV

Obakeng Mabotja (OM) – Manager Operating Support, Eskom Matimba Power Station

Tebogo Kubyane (TK) - Chemical Services Manager, Eskom Matimba Power Station

Mpolokeng Mampane (MMa) - Senior Technician Auxiliary, Eskom Matimba Power Station

Tshifhiwa Matamele (TM) - Environmental Manager, Eskom Matimba Power Station

Robert Relou (RR) - WorleyParsons (Coal stockyard groundwater remediation feasibility study)

1. Welcome and Introductions

FS chaired the meeting and asked everybody to introduce themselves

2. Safety Evacuation

MM explained the safety evacuation in the likelihood of incident happening during the meeting.

3. Confirmation of the Agenda

FS explained that the main purpose for the meeting is to provide DWS with the status of the Matimba Ash Dump Project. However, Eskom would like to add two items to the agenda, i.e. Matimba's Coal stockyard groundwater remediation feasibility study and proposal from the power station to use the effluent from recovery dams to conduct dust suppression at the coal stock yard and roads in the area.

4. Matimba Ash Dump Project

DM (Royal HaskoningDHV) presented the status to date regarding the work conducted on the Matimba Ash Dump Project (presentation attached to the minutes) in support of the water use license application. The following were highlighted in the presentation:

- Two sites were considered for the EIA phase of Matimba Ash Dump Project (SA1 and SA2)
- SA1 is the preferred sites based on specialist reports. However, the biodiversity study preferred site SA2. The reason being the presence of gravel plains in SA1. The gravel plains are indigenous to the area and rare habitats that contributes to diversity. The biodiversity specialist didn't declare the gravel plains as fatal flaw. The specialist study recommended Eskom to implement appropriate measures for the gravel plains. The final WULA application will include the measures identified for the gravel plains.
- The water use license application will be based on SA1.

- To meet the total airspace required (267 million m³) for the remaining life of the power station, the power station requires a total footprint of 700 ha: greenfields (510 ha) that include gravel plains and the piggyback on top of the existing ash dump (190 ha).
- Based on the specialist reports and existing infrastructure, the project triggers the following water uses:
 - Section 21(c&i) for the drainage line inside the earmarked footprint and adjacent to the proposed development area.
 - Section 21(g) for the disposal of ash;
 - Section 21(g) for capturing the runoff water from the ash dump and leachate into the pollution control dam (Metsimaholo); and
 - Section 21 (e) for irrigation on the ADF for dust suppression.
- The application will also include the following water uses:
 - Section 21(g) - increasing the footprint of the existing emergency ash dump from 900 to 5580 m², and
 - Section 21(g) - use of sewage dried sludge for rehabilitation at the ash dump.
- Sewage sludge has been classified using the DWS/WRC sludge guidelines and was declared suitable for rehabilitation. However, recommendations were provided for additional analyses to be done.
- Ash classification was conducted and Class C liner is required for the project
- The lining will be done in phases as ashing progress.
- The application will include motivation for **lining transitional arrangement**. Eskom will not be in the position to install a liner immediately after receiving the environmental authorisations. Eskom requires at least a maximum of 4 years to prepare and install the liner.
- Eskom will not install a liner for piggybacking (190ha).

Questions/ Answers/ Comments

- FS – how will DWS process the application since Matimba has already submitted the amendment application of the existing water use license?
- MM – A new water use license will be issued for Matimba Power Station including the water uses in the existing water use license.
- MM – Has Eskom received any response from DWS with regards to lining transitional arrangement for the other power stations since it is a policy issue?
- FS – Eskom and DWS are still working on the matter and decision has been made regarding lining transitional arrangement.

5. Coal stockyard Groundwater Remediation

- RR circulated the feasibility study report on Matimba Coal stockyard groundwater remediation to members of the meeting. He also provided background on the project and discussed the findings of the feasibility study.
- Three possible remedial measures were identified: Pump and treat/Reuse system, Lining of entire coal stock yard area and partial lining and capping of the coal stockyard.
- The feasibility study recommends Pump and treat/Reuse system as the remedial measure at the coal stockyard.
- RR indicated that for Matimba Power Station to take the recommendations of the feasibility study forward, it request comments from DWS on the recommendations of the feasibility study.

- MM – DWS do not recommend a technology to industries for implementation. Matimba Power Station must indicate to DWS the measures that they will implement at the coal stock yard area to prevent groundwater pollution which are aligned to legislation.
- FS - Matimba Power Station will send DWS a request to amend the water use licence condition that requires the power station to install a liner at the coal stockyard and attach the feasibility study as the motivation.
- FS – it will be ideal if the letter can be sent before DWS process the Ash Dump Project WULA to ensure that the new license that will be issued do not have the clause that still requires the power station to install a liner at the coal stockyard.

6. Use of Effluent for Dust Suppression at the coal stockyard and roads in the area

- TM presented the proposal to use effluent from the recovery dams to use for dust suppression at the coal stockyard and roads in the area (presentation attached).
- MM – DWS always encourages industries to implement Water Conservation and Water Demand Management initiatives, especially in the case of Lephalale.
- FS – Matimba water use license is specific in terms of where dust suppression is to be done and hence the power station consults with DWS.
- MM – Matimba must send a letter to DWS to motivate to use the effluent for dust suppression and roads in the area and DWS will evaluate and provide a response.

7. General

No issue was raised under general

8. Closure

Meeting was closed at 13:30.

**Limpopo Department of
Economic Development,
Environment and Tourism**



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ECONOMIC DEVELOPMENT, ENVIROMENT & TOURISM

Eng : Maesela L.B.
Tell : 015 290 7098
Fax : 015 295 4836
Cell : 082 057 1818
Email : Maesela@ledet.gov.za

DEA Ref : (14/12/16/3/3/3/56)

Director
Royal Haskoning DHV
P.O Box 25302
Monument Park
Pretoria
0105

RE: ENVIRONMENTAL IMPACT AND WASTE MANAGEMENT LICENSE APPLICATION FOR THE PROPOSED CONTINUOUS ASH DISPOSAL FACILITY AT MATIMBA POWER STATION LEPHALALE, LIMPOPO PROVINCE (REF : 14/12/16/3/3/3/56) –PUBLIC REVIEW OF THE DRAFT SCOPING REPORT.

Please find herein attached the Directorate comments

1. Please note that the National Environmental Management Waste Act, 2008 (Act 59 of 2008) is one of the appliance legislation that ought to be incorporate in the report on page 12 under relevant legislation and guidelines.
2. Spill incidents and any other emergency incident that may occur as a result of the activity must be reported to this Department in terms of section 30(5) of the National Environmental Management Act , 1998 (Act 107 of 1998)
3. Adequate measures must be implemented regarding the collection, removal and disposal of waste during each stage of the development from site preparation to construction and operation

Cnr of Suid and Dorp Streets, POLOKWANE, 0899, PO Box 55464, POLOKWANE, 0700
Tel: (015) 290 7000, Fax: (015) 295 5015 Website: <http://www.ledet.gov.za>

The heartland of southern Africa – development is about people

4. No waste, including excavated topsoil and boulders may be buried or burned on the site.
5. Details of any contracted companies responsible for waste collection, transportation, and treatment / recycling and facility should be kept on site
6. Please attach the copy of waste license application form submitted to Department of Environmental Affairs to the final report.

Please contact this office if you have any query.

Yours Faithfully,



MANAGER: GENERAL WASTE MANAGEMENT

DATE: 2013/06/10

SAHRA

Interim Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Royal Haskoning DHV

Fountain Square
78 Kalkoen Street
Monument Park Ext. 2
Pretoria

Draft Environmental Scoping Report for the Proposed Continuous Ash Disposal Facility for the Matimba Power Station in Lephalale, Limpopo Province

Van Schakwyk, J. April 2014. Heritage Impact Assessment for the Proposed Continuous Ash Disposal Facility for the Matimba Power Station, Lephalale, Limpopo Province

Eskom proposes the establishment of a continuous ash disposal facility at the Matimba Power Station, Limpopo Province. According to the Final Draft Scoping Report (DSR), an ash disposal facility requires the following type of infrastructure:

- Conveyor system for ash transportation
- Drainage system
- Site office
- Workshop
- Contractors' yard
- Water supply pipelines, for ash/dust suppression
- Ash water return dams
- Storm water control dams (these will be constructed as per the GN 704 of the National Water Act (No. 36 of 1998))
- Storm water control berms
- Access roads to, on and around the facility. These roads include temporary roads during construction and permanent roads during the operation.

Ash disposal site – The design of this site will be dependent on aspects such as the results of the ash classification study, topography, etc.

It is noted that the precise details of what infrastructure will be required has not yet been decided as this is dependent on the location of the site. A Phase 1 Archaeological Impact Assessment was undertaken in support of this application. This report was compiled by Dr Johnny van Schalkwyk. Dr van Schalkwyk investigated the two alternatives for the disposal site (Alternative 1 and Alternative 2), and a conveyor route for Alternative 2. Alternative 1 is an extension of the existing ash disposal facility whereas Alternative 2 is a green fields development.

In terms of the heritage report, the survey of the area took place over three days, between 2012 and 2014. Alternative 1 for the ash disposal facility was surveyed on 15 August 2012, Alternative 2 was surveyed on 19 July 2013, and the conveyor route for Alternative 2 was surveyed in 2014.



an agency of the
Department of Arts and Culture

The author notes that the topography of the area is very flat with few features, such as hills and rivers etc, that would have attracted people to the area. Alternative 1 is located on the farm Zwartwater 507 LQ, Alternative 2 is located on the farms Vooruit 449 LQ, Ganzepan 446 LQ, Appelvlakte 448LQ and Droogeheuvel 447 LQ. The conveyor route for Alternative 2 will traverse the farms Appelvlakte 448 LQ, Nelsonkop 464 LQ and Grootestryd 465 LQ. The specialist indicated that the area has been the subject of several research papers as well as Cultural Resources Management (CRM) projects. However, information about the results of this work is not presented in the report.

Alternative 1:

No archaeological resources were identified within the footprint of the area to be developed. A two roomed structure which is in a poor state of preservation. The author noted that this structure is of local significance and indicated that no further mitigation would be required.

Alternative 2:

No archaeological resources were identified within the footprint of the area to be developed. The remains of a small house structure were identified, the site is poorly preserved, and only the house foundations remain. The author noted that the site is of low significance. However, local informants indicated to the specialist that graves are associated with the site. The graves could not be located during the survey. The author noted that the area should be considered sensitive and the workers of Exxaro should mark the graves if found. It is noted that the site falls outside the area to be developed.

Conveyor Route/Alternative 2:

No archaeological or any other heritage resources were identified during the field assessment.

Figure 14 in the Environmental Scoping Report dated April 2013 (a year earlier than the Phase 1 AIA) is the heritage sensitivity map for the development area and shows one historical mine shaft, one cemetery located close to the existing ash disposal facility, one house and one (supposedly) isolated grave. There is also the mention of an outcrop site to the Iron Age and the Stone Age site of Nelson's Kop. None of these sites is mentioned in the archaeological impact assessment. Information regarding these heritage sites is only included in the Scoping Report at page 67. Moreover, Figure 32 of the Scoping Report mentions seven heritage sites instead of the five included in Figure 14. It is unclear what site 3 and site 6 on Figure 32 of the scoping report represent.

From previous research it is known that Nelson's Kop is an important Later Stone Age site. However, no mention of the impact of the proposed conveyor belt on the site is found in the heritage impact assessment. This is unfortunate since, according to Figure 4 of the Heritage Impact Assessment, Nelson's Kop is located about 1 km away from the proposed conveyor belt and it is unclear whether the construction or operational Phase of the conveyor belt may affect the site.



The South African Heritage Resources Agency

Street Address: 111 Harrington Street, Cape Town 8000 * Postal Address: PO Box 4637, Cape Town 8000
* Tel: +27 21 462 4502 * Fax: +27 21 462 4509 * Web: <http://www.sahra.org.za>



No palaeontological assessment was undertaken for this project. According to the SAHRA fossil sensitivity map, Alternative 2 and the conveyor route is situated in an area that has a high to very high fossil sensitivity. A field based palaeontological assessment would be required before authorisation is granted for this alternative. Alternative 1 is located in an area of moderate sensitivity; a desktop assessment is required and dependent on the results of this, a field assessment may be necessary.

Comment:

SAHRA has reviewed the Final Scoping Report and Heritage Assessment and recommends the following:

1. SAHRA requests that the heritage impact assessment is revised in the light of the heritage sites highlighted in Figure 14 and 32 of the Scoping Report. The impact that the proposed Alternative 1, 2 and the conveyor belt will have on these sites must be clearly explained in the assessment.
2. A palaeontological desktop assessment be undertaken for Alternative 1. If the palaeontologists deems it suitable, a letter of exemption may be submitted to the heritage authority suggesting that no further palaeontological studies are necessary.
3. A palaeontological impact assessment be undertaken for Alternative 2 and the related conveyor belt.
4. If Alternative 2 is preferred for the ash disposal facility, a palaeontological field assessment will be required and must be submitted to SAHRA for commenting before authorisation is granted. The field assessment must include the proposed conveyor route alignment.

SAHRA will further comment on this project once the information required are submitted to the agency.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Phillip Hine
Heritage Officer





Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/118558>

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.



Prashika Reddy

From: Prashika Reddy
Sent: 01 April 2015 03:21 PM
To: 'Phillip Hine'
Subject: (CaseID 2195) - Ref 9/2/253/0003
Attachments: Matimba_EIA_Heritage_Report_final.pdf; PIA Matimba ashing 21Jan2015_Final.pdf; Letter to SAHRA Matimba 01April2015.pdf

Importance: High

Hi Philip

The above project refers.

On 16 October 2014, interim comments were provided on the Draft Scoping Report for the project. I would like to provide clarity on the following:

- The interim comments were provided on the draft Scoping Report (2013) that included a high-level assessment of heritage/archaeological sites that might be found in an 8km radius surrounding the Matimba Power Station. The 8km study area was then subject to a fatal flaw/screening assessment and all heritage sites of significance e.g. Nelson's Kop (Category 1 site) included in Figure 14 of the ESR were indicated as fatal flaws and not considered as feasible areas for the construction of the ash disposal facility.
- Subsequent to this fatal flaw/screening investigation, two feasible sites were proposed for further assessment in the Scoping phase. At a high-level, the sites included within Site Alternative 1 and 2 were presented in the ESR and would be subject to detail investigation and an HIA.
- The HIA was uploaded 22 May 2014 that looked at the heritage resources within/close proximity to site alternatives. The HIA also took in to account the conveyor route system. Comments on the HIA are still outstanding.
- As per the interim comments, a desktop Palaeontological assessment was requested for Site Alt 1 and PIA requested for Site Alt 2 and the conveyor route. A PIA has since been done for both sites as well as the conveyor system. No fossils were found at either site alternative or the conveyor route. The PIA was uploaded as well as the confirmation from Prof Marion Bamford (also uploaded onto the SAHRIS site). Refer to the screenshot below for the 3 documents uploaded for the project.

I will send the above through the SAHRIS system as well.

Please do not hesitate to contact me should you require further clarity.

Regards
Prashika



VIEW EDIT SITES

Heritage Impact Assessment for the Proposed Matimba Ash Disposal Facility

ReportHeader **LocationInfo**

ReportTitle: Heritage Impact Assessment for the Proposed Matimba Ash Disposal Facility
ReportType: HIA Phase 1
ReportDate: Wednesday, April 30, 2014
IsApproxDate: Yes
CommissioningCompany: Royal Haskoning DHV
Authors: Johnny Van Schaikwyk
DataExtracted: No
DataModerated: No
Author: prashika.reddy
Post date: 22/05/2014
ReportFile:

Attachment	Size
Matimba Heritage Report.pdf	2.08 MB
PIA Matimba ashing 21Jan2015_Final.pdf	2.06 MB
Letter to SAHRA Matimba 01April2015.pdf	392.63 KB

CasesReferenced
Matimba Ash Disposal Facility

8+1 0 [Share](#)



Tel: +27 11 717 6690

Marion.bamford@wits.ac.za

01 April 2015

Your ref: 9/2/253/0003

Mr Phillip Hine
SAHRA
P O Box
Cape Town 8000

Dear Mr Hine

RE: CaseID: 2195 Matimba Ash Disposal Facility Palaeontological Impact Assessment

As requested by Royal Haskoning DHV, I have completed a Phase 2 PIA for the proposed Matimba Ash Disposal Facility. There are two alternatives for this project: Alternative 1 (blue polygon to the southeast of Matimba) is deemed by SAHRA (CaseID 2195) to be moderately sensitive and they request a desktop study; Alternative 2 (red polygon to the northeast of Matimba) and the conveyor route are considered to have a high to very high sensitivity and a site visit is requested by SAHRA.

Site visits:

The Southern site (blue polygon – Alternative 1 – medium sensitivity) was visited on 18 December 2014.

The area has very little relief, no outcrops and no river cuttings. The soil is deep Kalahari sand with large, mature trees. Areas that had had the topsoil and vegetation removed revealed more deep sand and some patches of small gravel. No rocks and no fossils were found. According to the engineer and based on drill core, the ash dump sites are not over coal deposits.

The Northern site (red polygon – Alternative 2 – high sensitivity) was visited on 16 January 2015. Five farms were surveyed: Vooruit 449 LQ, Appelvlakte 448 LQ and Nelsonskop 445 LQ, Droogeheuvel 447 LQ and Ganzepan 446 LQ. All farms have little to no relief, deep Kalahari sands and either large trees when not cleared for agriculture or secondary grassland or shrubland where the natural vegetation has been cleared. The kopje on Nelsonskop was also surveyed but is comprised of ancient rocks. No fossils and no coal were found on any of the farms.

Recommendation

There was no evidence of fossils on the southern site (Alternate 1) and no fossils on any of the farms of the northern site, including the boundary where the

conveyor belt is planned to run (Alternate 2). There were no rocks, no rocky outcrops, shale or sandstones, only deep loose sand which is not suitable for the preservation of fossils.

Although the areas have been recorded as sensitive or very sensitive on the SAHRIS map, there were no fossils at all. As far as the palaeontological assessment is concerned BOTH alternates are suitable for the proposed continuous ash disposal facility for the Matimba power plant. If fossils are discovered during any excavations then a palaeontologist should be called to review and possibly rescue them.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'M Bamford', with a horizontal line underneath.

Prof Marion Bamford
Palaeobotanist
Evolutionary Studies Institute

b) Subsequent to this fatal flaw/screening investigation, two feasible sites were proposed for further assessment in the Scoping phase. At a high-level, the sites included within Site Alternative 1 and 2 were presented in the ESR and would be subject to detail investigation and an HIA.

c) The HIA was uploaded 22 May 2014 that looked at the heritage resources within/close proximity to site alternatives. The HIA also took in to account the conveyor route system. Comments on the HIA are still outstanding.

d) As per the interim comments, a desktop Palaeontological assessment was requested for Site Alt 1 and PIA requested for Site Alt 2 and the conveyor route. A PIA has since been done for both sites as well as the conveyor system. No fossils were found at either site alternative or the conveyor route.

All three documents have been uploaded under heritage reports as per your request in earlier correspondences.

CaseReference:
[Matimba Ash Disposal Facility](#)

You 9 sec ago [Delete](#)

Hi Philip

Please can you provide comments on the HIA and PIA uploaded for the project on 22 May 2014 and 01 April 2015 respectively. The draft EIAR has come out of review, and we are in the process of finalising the report for decision-making.

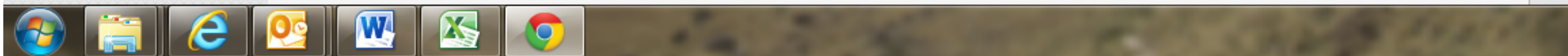
Regards
Prashika

CaseReference:
[Matimba Ash Disposal Facility](#)

Reply

CaseReference

[+ ADD ANOTHER ITEM](#)



Prashika Reddy

From: Prashika Reddy
Sent: 15 July 2015 09:55 AM
To: 'Phillip Hine'
Subject: RE: (CaseID 2195) - Ref 9/2/253/0003

Hi Phillip

To date, I have received no response on the Matimba project (CaseID 2195). I have sent a reminder via the SAHRIS as well. The HIA and PIA for the project was uploaded on 22 May 2014. Refer to the email and screen shot below.

The report will be forwarded to the DEA for licencing next week. Please can I have your comments by Friday, 17 July 2015. This message will also be forwarded via SAHRIS.

Regards
Prashika

From: Prashika Reddy
Sent: 01 April 2015 03:21 PM
To: 'Phillip Hine'
Subject: (CaseID 2195) - Ref 9/2/253/0003
Importance: High

Hi Philip

The above project refers.

On 16 October 2014, interim comments were provided on the Draft Scoping Report for the project. I would like to provide clarity on the following:

- The interim comments were provided on the draft Scoping Report (2013) that included a high-level assessment of heritage/archaeological sites that might be found in an 8km radius surrounding the Matimba Power Station. The 8km study area was then subject to a fatal flaw/screening assessment and all heritage sites of significance e.g. Nelson's Kop (Category 1 site) included in Figure 14 of the ESR were indicated as fatal flaws and not considered as feasible areas for the construction of the ash disposal facility.
- Subsequent to this fatal flaw/screening investigation, two feasible sites were proposed for further assessment in the Scoping phase. At a high-level, the sites included within Site Alternative 1 and 2 were presented in the ESR and would be subject to detail investigation and an HIA.
- The HIA was uploaded 22 May 2014 that looked at the heritage resources within/close proximity to site alternatives. The HIA also took in to account the conveyor route system. Comments on the HIA are still outstanding.
- As per the interim comments, a desktop Palaeontological assessment was requested for Site Alt 1 and PIA requested for Site Alt 2 and the conveyor route. A PIA has since been done for both sites as well as the conveyor system. No fossils were found at either site alternative or the conveyor route. The PIA was uploaded as well as the confirmation from Prof Marion Bamford (also uploaded onto the SAHRIS site). Refer to the screenshot below for the 3 documents uploaded for the project.

I will send the above through the SAHRIS system as well.

Please do not hesitate to contact me should you require further clarity.

Regards
Prashika

ihra.org.za/heritage-reports/heritage-impact-assessment-proposed-matimba-ash-disposal-facility

HeritageReports

VIEW EDIT SITES

Heritage Impact Assessment for the Proposed Matimba Ash Disposal Facility

ReportHeader LocationInfo

ReportTitle: Heritage Impact Assessment for the Proposed Matimba Ash Disposal Facility
 ReportType: HIA Phase 1
 ReportDate: Wednesday, April 30, 2014
 IsApproxDate: Yes
 CommissioningCompany: Royal Haskoning DHV
 Authors: Johnny Van Schaikwyk
 DataExtracted: No
 DataModerated: No
 Author: prashika.reddy
 Post date: 22/05/2014
 ReportFile:

Attachment	Size
Matimba Heritage Report.pdf	2.08 MB
PIA Matimba ashing 21Jan2015_Final.pdf	2.06 MB
Letter to SAHRA Matimba 01April2015.pdf	392.63 KB

CasesReference
Matimba Ash Disposal Facility

3+1 0 Tweet Like Share

-----Original Message-----

From: Phillip Hine [<mailto:phine@sahra.org.za>]
 Sent: 23 October 2014 11:51 AM
 To: Prashika Reddy
 Subject: Matimba Ash Disposal Facility comments

Dear Prashika,

Please find attached.

Kind regards,
 Phillip Hine
 Archaeology, Palaeontology & Meteorites Unit
 111 Harrington Street
 Cape Town
 8001
 tel. 021 462 4502

----- Original Message -----

From: "Prashika Reddy" <Prashika.Reddy@rhdhv.com>
 To: phine@sahra.org.za
 Sent: Wednesday, 22 October, 2014 11:37:20 AM
 Subject: Google Earth Placemark: Matimba.kmz

<<Matimba.kmz>> Hi Phillip

Find attached the kmz for the Matimba Project. The blue polygon represents Site Alternative 1 and is an extension of the existing ash disposal facility.

Site Alternative 2 (greenfield development) is represented by the red polygon. The yellow linear infrastructure route connects the Power Station to Site Alternative 2.

Regards

Prashika

This email and any attachments are intended solely for the use of the addressee(s); disclosure or copying by others than the intended person(s) is strictly prohibited. If you have received this email in error, please treat this email as confidential, notify the sender and delete all copies of the email immediately

Please note: This email and its content are subject to the disclaimer as displayed at the following link:

<http://www.sahra.org.za>

--

Scanned. No Viruses Found. Copyright © 2014 iSheriff. All rights reserved.