



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA · 0001· Environment House ·473 Steve Biko Road, Arcadia· PRETORIA

DFFE Reference: 14/12/16/3/3/3/403

Enquiries: Ms Samkelisiwe Dlamini

Telephone: (012) 399 9379 **E-mail:** SDlamini@dff.gov.za

Mr Yangaphe Solly Ngcashi
Eskom Majuba Power Station
Private Bag 9001
VOLKSRUST
2470

Cellphone Number: 076 175 6698
Email Address: KagodaNF@eskom.co.za

PER EMAIL / MAIL

Dear Mr Ngcashi

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED AND NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 GOVERNMENT NOTICE 921: FOR THE PROPOSED GENERAL WASTE DISPOSAL SITE AT THE ESKOM MAJUBA POWER STATION, DR PIXLEY KA SEME LOCAL MUNICIPALITY, MPUMALANGA PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful, and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing, and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was

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sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@environment.gov.za;

By hand: Environment House
473 Steve Biko
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation, or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@environment.gov.za.

Yours faithfully



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment

Date: *09/09/2023*

cc:	Ms Jo-Anne Thomas	Savannah Environmental (Pty) Ltd	Email: loanne@savannahsa.com
	Mr Bheki Nyathikaz	Mpumalanga Department Agriculture, Rural Development, Land and Environmental Affairs	Email: nyathikazibw@mpg.gov.za
	Mr Patrick Malebye	Dr Pixley Ka Seme Local Municipality	Email: faith@pixleykaseme.co.za





forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Integrated Environmental Authorisation Issued in terms of

The National Environmental Management Act, 1998 and the Environmental Impact
Assessment (Regulations 2014, as amended) .

and

The National Environmental Management: Waste Act, 2008 and Government Notice 921 of
2013

The general waste disposal site at the Eskom Majuba Power Station, Dr Pixley Ka Seme Local
Municipality, Mpumalanga Province.

Gert Sibande District Municipality

Authorisation register number:	<i>14/12/16/3/3/3/403</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>Eskom Majuba Power Station</i>
Location of activity:	<i>Portion 6 of the Farm Witkoppies 81 HS), in the Dr Pixley Ka Seme Local Municipality within the Gert Sibande District Municipality in Mpumalanga Province.</i>

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other
statutory requirements that may be applicable to the undertaking of the activity.

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Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this integrated environmental authorisation (“the environmental authorisation”) that the applicant should be authorised to undertake the NEMA EIA and NEMWA listed activities specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure “I” to this environmental authorisation.

NEMA EIA and NEMWA Activities Authorised

By virtue of the powers conferred on it by NEMA, the NEMA EIA Regulations, 2014, NEMWA and Government Notice 921 of November 2013 the Department hereby authorises –

ESKOM MAJUBA POWER STATION

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Yangaphe Solly Ngcashi

Private Bag 9001

VOLKSRUST

2470

Cellphone Number: (076) 175 6698

Email Address: KagodaNF@eskom.co.za

The applicant, Eskom Majuba Power Station applied for authorisation in terms of the EIA Regulations, 2014 as amended, activities applied for are as follows:

Activity number	Activity description
<p><u>Listing Notice 1, Item 19:</u> <i>The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand shells, shell grit, pebbles, or rock of more than 10 cubic meters from a watercourse.</i></p>	<p>There are several wetland features, specifically seepage wetlands, and drainage lines present within the 500m regulated area of the project site. During the construction phase, more than 10 cubic metres of rock will be removed from the water features for the development of the new waste disposal site and its associated infrastructure.</p>
<p><u>Listing Notice 1, Item 27:</u> <i>The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.</i></p>	<p>The new waste disposal site will require the clearance of an area of ~6ha (equivalent to the development footprint) of indigenous vegetation.</p>
<p><u>Listing Notice 3, Item 4:</u> <i>The development of a road wider than 4 metres with a reserve less than 13.5 metres.</i> <i>f. Mpumalanga</i> <i>i. Outside urban areas:</i> <i>(bb) National Protected Area Expansion Strategy Focus areas.</i> <i>(ee) Critical biodiversity areas identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</i> <i>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas, where such areas comprise indigenous vegetation.</i></p>	<p>The project will include the establishment of an access road up to 4m in width for Alternative B. The project site is located within the Mpumalanga Province, outside of urban areas. The site (both Alternatives A and B) falls within National Protected Area Expansion Strategy Focus areas. A portion of the site (both Alternatives A and B) falls within a Critical Biodiversity Area in terms of the Mpumalanga Biodiversity Sector Plan. The site also falls within 5 kilometres from other protected areas identified in terms of NEMPAA as the Eskom Majuba Power Station has a declared Nature Reserve.</p>

<p>Listing Notice 3, Item 12: <i>The clearance of an area of 300m² or more of indigenous vegetation within:</i> <i>f. Mpumalanga</i> <i>ii. Critical biodiversity areas identified in bioregional plans.</i></p>	<p>The development of the waste disposal site will require clearance ~6ha (equivalent to the development footprint). A portion of the site (both alternatives Alternative A and B) falls within a Critical Biodiversity Area in terms of the Mpumalanga Biodiversity Sector Plan.</p>
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The application also includes waste activities, as per the Schedule contained in GN R.921 of 29 November 2013 in terms of section 19 of NEM: WA, 2008, applied for as follows:

Listed activities	Activity/Project description
<p>Category B Activity 8 <i>The disposal of general waste to land covering an area in excess of 200m² and with a total capacity exceeding 25 000 tons.</i></p>	<p>The new waste disposal site will be established on land covering an area in excess of 200m². The disposal site will comprise nine (9) cells with an estimated capacity of 26 850m³ for each cell. The total capacity of the landfill will be 241 650m³.</p>
<p>Category B Activity 10 <i>The construction of a facility for a waste management activity listed in Category B.</i></p>	<p>The proposed project will entail the construction of a waste disposal site for the following waste management activity: Activity 8 of Category B.</p>

as described in the Environmental Impact Assessment Report (EIAr) dated August 2022 at:

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Site Coordinates (corner points of project site)	Corner	Latitude	Longitude
	1	27°6'4.34"S	29°45'1.74"E
	2	27°6'7.62"S	29°45'39.16"E
	3	27°6'4.05"S	29°47'2.89"E
	4	27°6'12.40"S	29°47'18.43"E
	5	27°7'12.12"S	29°47'5.90"E

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	6	27°7'32.55"S	29°47'7.74"E
	7	27°7'41.35"S	29°47'10.41"E
	8	27°7'45.04"S	29°46'0.07"E
	9	27°7'40.92"S;	29°45'52.30"E
	10	27°7'11.47"S	29°45'54.33"E
	11	27°6'30.29"S	29°45'0.79"E
Alternative A Coordinates	1	27°7'3.96"S	29°46'22.15"E
	2	27°7'3.85"S	29°46'32.05"E
	3	27°7'10.55"S	29°46'32.09"E
	4	27°7'10.52"S	29°46'21.93"E

- for the general waste disposal site at the Eskom Majuba Power Station, Dr Pixley Ka Seme Local Municipality in Mpumalanga Province, hereafter referred to as "the property."

The main infrastructure associated with the facility includes the following:

- Fencing with appropriate signage.
- An adequate access road (gravel or surfaced).
- An access control gate.
- A guard house with an ablution facility.
- A conservancy tank connected to the ablution facility.
- Covered parking facilities.
- A designated area for parking and servicing of plant and machinery.
- Sorting and storage facilities for recyclables.
- Adequate water and electricity connection from the existing rising mains.
- Stormwater drainage network and a stormwater evaporation pond for the stormwater entering the site through the waste body.
- A leachate management system and a leachate evaporation pond.

Infrastructure	Footprint and dimensions
Capacity of landfill (all cells)	<ul style="list-style-type: none"> • 250 000m³ • Footprint: 30 525.7m² or 3ha
Leachate evaporation pond	<ul style="list-style-type: none"> • Capacity: 100m³ • Footprint: 2 480m² or 0.248ha

	<ul style="list-style-type: none"> The leachate evaporation pond will be lined with a 200-micron HDPE liner and will be linked to the cells via a 250-diameter polyvinyl chloride (PVC) leachate drainage pipe.
Stormwater evaporation pond	<ul style="list-style-type: none"> Footprint: 1 085m² or 0.1085ha The stormwater evaporation pond will be lined with a 200-micron HDPE liner and will be linked to the cells via a 750-diameter polycarbonate (PC) stormwater pipe. Stormwater from the stormwater evaporation pond will be drained out via a 450- diameter stormwater outlet pipe.
Fencing	<ul style="list-style-type: none"> Up to 3m high
Roads	<ul style="list-style-type: none"> The site can be accessed via an existing gravel road. The access road will be resurfaced (either gravel or surfaced) depending on the cost.
Other infrastructure (guardhouse; parking facility; plant parking, maintenance and wash bay; sorting and storage facilities for recyclables)	<ul style="list-style-type: none"> footprint: ~2.5ha

Conditions of this Environmental Authorisation

Scope of authorisation

1. The general waste disposal site at the Eskom Majuba Power Station, Dr Pixley Ka Seme Local Municipality in Mpumalanga Province is approved as per the geographic coordinates cited in the table above.
2. Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant, or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing

whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.

6. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.
8. Construction must be completed within five (05) years of the commencement of the activity on site.

Notification of authorisation and right to appeal

9. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

11. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.
12. Should holder of the authorisation be notified, by the Minister in writing of a suspension of the Licence pending any appeals decision, you may not continue with the reviewed WML issued by the Minister.

13. After the appeal period has expired and no good cause to extend the appeal period has been submitted, the facility may continue with the reviewed WML provided a notice has been submitted to the Department.

Management of the activity

14. The site layout plans as attached as Appendix O (Maps) of the EIA dated August 2022 is approved.
15. The Environmental Management Programme (EMPr) submitted as part of the EIA dated August 2022 is approved and must be implemented and adhered to.
16. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
17. Changes to the approved EMPr must be submitted in accordance with the EIA Regulations applicable at the time.
18. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIA be discovered.

Frequency and process of updating the EMPr

19. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 26 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
20. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
21. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
22. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
23. The holder of the authorisation must apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments

to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

24. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
- 24.1. The ECO must be appointed before commencement of any authorised activities.
- 24.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 24.3. The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.
- 24.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Environmental Control Officer

25. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
- 25.1. The ECO must be appointed before commencement of any authorised activities.
- 25.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 25.3. The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.
- 25.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

26. All documentation e.g., audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.

27. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
28. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
29. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e., within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
30. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
31. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

32. Reporting of Incidents

- 32.1. The holder of the environmental authorisation must, within 24 hours, notify the Department of the occurrence or detection of any incident on the Site which has the potential to cause, or has caused water pollution.
- 32.2. The holder of the environmental authorisation must, within 14 days, or a shorter period, if specified by the Department, from the occurrence or detection of any incident referred to in condition 33.1 submit an action plan, which shall include a detailed time schedule, to the satisfaction of the Department of measures taken to-
 - a) Be made as soon as reasonably practicable and should form part of the external audit report;
 - b) Correct the impact resulting from the incident;
 - c) Prevent the incident from causing any further impact; and
 - d) Prevent a recurrence of a similar incident.
- 32.3. In the event that measures have not been implemented within 21 days to address impacts caused by the incident referred to in condition 33.1, or measures which have been implemented are inadequate, the Department may implement the necessary measures at the cost and risk of the holder of the environmental authorisation.

- 32.4. The holder of the environmental authorisation must keep an incident and complaints register, which must be attached to the external audit report, and must be made available to the Department and Department of water and Sanitation (DWS) for audit purposes.
- 32.5. The Department must be notified in writing within 24 hours in the case of the following:
- a) Any malfunction, breakdown or failure of equipment or techniques, accident or fugitive emission which has caused, is causing or may cause significant pollution;
 - b) The breach of this Licence; and
 - c) Any significant adverse environmental and health effects.
- 32.6. The Department must be notified within 14 days of the following changes:
- a) holder of the environmental authorisation's trading name, registered name, or registered office address;
 - b) Particulars of the holder of the environmental authorisation ultimate holding company (including details of an ultimate holding where a holder of the environmental authorisation has become a subsidiary); and
 - c) Steps taken with a view to the holder of the environmental authorisation, or any one of them, going into bankruptcy, entering into arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 32.7. Each external audit report referred to in condition 37.3. below must be submitted to the Director within 30 days from the date on which the external auditor finalized the audit.
- 32.8. The Licence Holder must register on the South African Waste Information System (SAWIS) as required and report quantities of waste disposed of.

33. Other Reports

- 33.1. The information required in terms of water quality management must be reported to the Department in an annual report. The information must also be included into a trend report, which must contain a graphical presentation of all results obtained previously at any specific point, as well as an interpretation and discussion of the results of each monitoring occasion.
34. The holder of the environmental authorisation must submit a written report to the Department regarding any deviations from plans described in this authorisation and must obtain written permission from the Department before such deviations may be implemented.

Environmental audit report for construction

35. Internal Audits

35.1. Internal audits must be conducted bi-annually by the holder of the environmental authorisation and on each audit occasion an official report must be compiled by the relevant auditor to report the findings of the audits, which must be made available to the external auditor specified in condition 37.3. below.

36. External Audits

36.1. The holder of the environmental authorisation must appoint an independent external auditor to audit the Site annually and the auditor must compile an audit report documenting the findings of the audit, which must be submitted by the holder of the environmental authorisation according to condition 33.7. above.

36.2. The audit report must:

- a) Specifically, state whether conditions of this licence are adhered to;
Include an interpretation of all available data and test results regarding the operation of the site and all its impacts on the environment;
- b) Specify target dates for the implementation of the recommendations by the holder of the environmental authorisation to achieve compliance;
- c) Contain recommendations regarding non-compliance or potential non-compliance and must specify target dates for the implementation of the recommendations by the holder of the environmental authorisation and whether corrective action taken for the previous audit for non-conformities was adequate; and
- d) Show monitoring results graphically and conduct a trend analysis.

36.3. The external auditor must finalise the external audit report within 30 days from the date on which the audit was performed.

37. Departmental Audits and inspections

37.1. The Department reserves the right to audit and/or inspect the Site at any time and at such a frequency as the Department may decide, or to have the Site audited or inspected.

37.2. The holder of the environmental authorisation must make any records or documentation available to the Department upon request, as well as any other information the Department may require.

Notification to authorities

38. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

39. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

40. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

Permissible Waste

41. Any portion of the site which has been developed according to this Authorisation may be used for the disposal of general waste.
42. Waste, which is not permissible on Sit, must be dealt with according to the relevant legislation or the Departments policies and practices.
43. The classification and acceptance of waste must be according to the Waste Classification and Management Regulations and associated norms and standards: (GN R634, 23 August 2013).
44. A minimum of 80% recyclable waste must be diverted from the disposal facility.
45. 80% of organic waste must be diverted from the disposal facility.

Construction of the site

46. The construction of the general waste disposal facility and associated infrastructure should be in accordance with the Design of a New General Waste Disposal Facility at Majuba Power Station Detailed Design Report Rev 1 compiled by WSM Group (Pty) Ltd dated October 2022 signed by C Wilson (PrEng#790253) and AS Dookhi (PrEng #201070022) with all its Appendices and drawings WSW-MAJ-01 General Arrangement; WSM-MAJ-02 Containment barrier layout; WSM-MAJ-03 Waste Placement ; WSM-MAJ-04 and WSM-MAJ-05 Leachate Evaporation Pond and Stormwater Attenuation Pond Details 1 and Details 2; WSM-MAJ-06 Road Layout; WSM-MAJ-07 Road Details; WSM-MAJ-08 Long Sections 1 Ring Road; WSM-MAJ-09 Long Sections 2 Service Roads; WSM-MAJ-10 Long Sections 3 Stormwater Drainage and WSM-MAJ-11 Leak Detection and Under-Drainage System (signed by C Wilson PrEng #790253).

47. Construction within the Site must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 2000 (Act 46 of 2000).
48. Any development which occurs within 1: 100-year flood line and/or within 500m from the boundary of a wetland would require a water use licence in terms of section 40 of the National Water Act, 1998 (Act 36 of 1998).
49. The authorities shall not be held responsible for any damages or losses suffered by the holder of the environmental authorisation or its successor in title in any instance where construction or operation subsequent to construction is temporary or permanently stopped for reasons of non-compliance by the holder of the environmental authorisation with the conditions of approval as sent out in this authorisation or any other subsequent documents emanating for this situation.
50. One week's written notice must be given to the DFFE and the DWS before commencement of construction activities. Such notice shall make clear reference to the site location details and the reference number of the project as indicated on the environmental authorisation and include a rudimentary construction program. Similarly, one month's written notice must be given to the DWS before commencement of the operation phase activities.
51. Design and construction records, including topographical surveys and methodical materials test results (on all materials used), shall be maintained and archived and accessible for the life of the facilities (including decommissioning). For pollution control and waste disposal facilities the survey shall include the waste disposal facility (WDF) boundary co-ordinates and coordinates of inlet and outlet penetrations as well as elevations, and similar installed instrumentation.
52. The discharge of leachate or polluted water caused by overtopping of pollution control dams (or return water or process water dams or potentially polluted stormwater dams) to the environment (or similar noncompliant containment) is to be reported to the Department as an incident within 24 hours, and treated as such, with appropriate remediation measures. Similarly, pollutants discharges from sumps and manholes on pipeline routes shall be reported and treated as an incident.
53. The holder of the environmental authorisation must place and maintain cordons, barriers, and warning systems around facilities to define the nature and extent of each disposal or waste management area and avoid intersection of different waste types as per the NEM:WA Regulations 2013.
54. The infrastructure shall include instrumentation and monitoring systems to confirm design, construction and operational phase assumptions which influence performance. All significant differences between predicted and actual performance of facilities shall be reported to the authorities annually in writing or upon request.
55. The holder of the environmental authorisation is to ensure that there is no coalition between facility owner, engineer, contractor, subcontractor, material suppliers, and (construction quality assurance) CQA agent

in the development and implementation of the construction quality assurance plans, in compliance with the Competitions Act (as well as Treasury Regulations for State Owned Entities) and is accountable, therefore a declaration to this effect is to be included in the supporting documentation to the construction completion certificate when called for.

56. The validity period for the construction of the proposed infrastructure applies only to the proposed infrastructure in the design report (Rev 1 dated October 2022), provided such is implemented within a period of three (3) years from date of approval, unless superseded by Regulations prior to that date and for the quantity and quality of waste specified therein i.e. the Class B waste disposal facility (WDF) in four cells with phases and associated evaporation dam and stormwater management, however, the closure cap design is to be submitted during the operational phase for regulatory approval.
57. The disposal of excess leachate from the evaporation facilities by tanker for off-site treatment shall be to a licensed and functional wastewater works or similar approved.
58. Preferred barrier design and alternative barrier option: The preferred barrier option design, reported in section 6.5.5 of the Final Environmental Impact Assessment Report, incorporating a geosynthetic clay liner (GCL) in lieu of a compacted clay liner (CCL) is the accepted design. The alternative of a conventional composite liner incorporating CCL shall be agreed with the authorities in writing once geotechnical testing has confirmed availability of suitable material for the CCL and done in writing once geotechnical testing has confirmed availability of suitable material for the CCL and done in writing prior to placement of the liner (due to the absence of materials quality specifications and design specifications).
59. Due to the desktop assessment of service life based on literature emanating from significantly cooler climates and the absence of a site specific leachate collection system (LCS) temperature estimate, there shall be no leachate recirculation, nor dust suppression using contaminated water from the power station nor its ash disposal facility leachate ponds, and the Cell 1 monthly temperature monitoring results shall be reported to the authorities annually to confirm the assumptions in the literature used.
60. Due to the seepage assessed as 0,75 l/ha/d for the operational phase with specification of the maximum wrinkle length of 14m, and the post closure seepage assessed as 20 l/ha/d, the holder of the environmental authorisation shall confirm the validity of the design engineers assessment following implementation of the CQA plan and such revised estimate using the Casagrande 2011 Lecture equation for barrier systems having wrinkles shall be included in the Engineers Certificate of Completion and shall not exceed 80 l/ha/day.
61. While the report acknowledges that a minimum of 30kPa of confining stress is required above a GCL to overcome panel shrinkage and partly inhibit irreversible desiccation cracking, the design fails to provide such in the leachate evaporation areas where only a 100mm thick soil-cement ballast and protection layer is provided, thus the holder of the environmental authorisation shall ensure that prior to storage of leachate

in all areas to be used for evaporation the ballast layer shall provide a minimum of 30kPa confining stress by means of at least a 300mm thick cement stabilised layer or similar approved.

62. Due to the proposed use of Cell C4c as a leachate evaporation pond prior to waste disposal, the holder of the environmental authorisation shall confirm the integrity of the liner post operation as a leachate pond and prior to solid waste placement (noting that the seepage calculation does not address the pond condition of increased head nor the effects of available leachate elements in the leachate column which effect geomembrane (GM) and GCL service life/performance). This evaluation may include but not be limited to the inclusion of sacrificial material specimens in the barrier system (such as below the LCS) for retrieval and evaluation just prior to solid waste disposal.
63. The CQA plan in Appendix 4 to be read in conjunction with the design report Rev 1 dated October 2022 shall be revised to include a statistical analysis of material test results on all elements of the barrier system. Furthermore, the CQA shall include an electric leak location survey post placement of the protection layer of cement stabilised sand and include the results of both the post commencement of construction interface shear strength tests and the total tensile strain cylinder tests as referred to in the design report.
64. The holder of the environmental authorisation shall provide the Director: Licensing with the engineer's certificate of completion (COC) and supporting documentation to confirm that construction was in accordance with the accepted design and construction quality assurance (CQA) plan for written acceptance prior to use. The supporting documentation shall include a summary of test results which includes the number of tests, minimum, maximum, and mean value, standard deviation, and number of failures for each test method required by the CQA plan in compliance with SANS standards (being the latest version at time of commencement of construction).
65. The CQA plan shall be implemented by an independent person registered with ECSA (as either professional engineer, technologist, or technician), with roles and responsibilities as defined in SANS 10409 (2020) and certify the COC supporting documentation as correct for contaminant containment assurance.
66. Clean run-off must be diverted away from the waste body to maximise separation of clean water from dirty water.
67. Eskom Majuba Power Station general waste disposal facility, stormwater evaporation pond, leachate evaporation pond and other waste management facilities must not be constructed on or near geological features such as lineaments, dykes, faults, shallow water table or on areas with potential for increased infiltration to groundwater.
68. Scientifically determined buffer zone must be implemented between any wetlands and the proposed landfill site.

69. A Stormwater Management Plan and Maintenance Plan must be compiled and submitted to the DWS as part of the water use licence application.
70. Clean stormwater drains must be constructed as natural as possible as well as discharge points.
71. The proposed activities must not promote the concentration of water during rainfall.
72. Alien invasive control plan must be implemented.
73. Install sediment barriers along any drainage areas to prevent the migration of silts during construction and operation.
74. Monitoring plan and programme must be implemented.

Water quality management

75. Water monitoring

- 75.1. The groundwater quality monitoring must be conducted for parameters as presented in Appendix A, from the Geohydrological Investigation Report, and not limited to relevant other parameters and water quality data collected on a quarterly basis.
- 75.2. A recent and detailed hydro-census must be conducted to identify the current groundwater uses and users, water quality status and level within a 1 km radius of the waste disposal site before operation phase (commencement of waste disposal). If there are any hydro-census borehole (external users) within 1 km of the proposed waste disposal facility must be incorporated into the groundwater monitoring network.
- 75.3. All the monitoring boreholes must always be properly sealed/capped at the surface to prevent surface pollution into the groundwater system.
- 75.4. A geohydrological model must be constructed using the data that will be collected from monitoring events and the model must be continually updated using the monitoring data to detect pollution at the early stages.
- 75.5. An assessment on the monitoring network must be conducted in a space of two (02) years after commencement of the proposed development, if there is a need the monitoring network must be extended over time to accommodate the migration of contaminants through the aquifer.
- 75.6. The hydro-chemical data generated from existing monitoring boreholes must be used to assess water quality during construction, operational, decommissioning, and post-decommissioning phases with regular interpretation of results and must be done by a qualified person or Professional Geohydrologist.
- 75.7. In the event that groundwater and downstream users are affected by migration of pollution emanating from the waste disposal facility, the holder of the environmental authorisation must supply them with potable water.

76. Detection monitoring

- 76.1. Monitoring for groundwater quality must be conducted quarterly or such frequency as may be determined by the Responsible Authority as outlined in Appendix B of the Geohydrological Investigation Report.
- 76.2. Water level data must be collected monthly for groundwater monitoring.
77. **Investigative monitoring**
- 77.1. If, in the opinion of the Director: Licensing, a water quality variable listed in Appendix B, as referred to in condition 77.1, shows an increasing trend, the holder of the environmental authorisation shall initiate a monthly monitoring programme until such time that the variable is within acceptable limits.

Methods of analysis

78. Sample analysis, for samples taken under the monitoring programme specified in condition 4, must be conducted by a recognized analytical laboratory, accredited by the South African National Accreditation System (SANAS), or that participates in a recognised Proficiency Testing Scheme to analyse the relevant constituents in the monitoring program.
79. The holder of the environmental authorisation shall only use another method of analysis if written proof that the method is at least equivalent to the SABS method, is approved by the Department.

Specific conditions

80. There must be a 30m no-go buffer around the wetland features to maintain the ecological integrity and functioning of the seepage wetlands by minimising indirect impacts that could be associated with the proposed landfill site.
81. No effluent must be discharged into any storm water drain or furrow, whether by commission or by omission.

General

82. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-
- 82.1. at the site of the authorised activity;
- 82.2. to anyone on request; and
- 82.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
83. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the environmental authorisation or his/her successor in title in any

instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

84. This Licence shall not be construed as exempting the holder of the environmental authorisation from compliance with the provisions of National and Provincial Legislation and any relevant Ordinance, Regulation, By-law or relevant National Norms and Standards.
85. Non-compliance with a condition of this Licence may result in criminal prosecution or other actions provided for in Section 67 (1) of the National Environmental Management: Waste Act, 2008.
86. In terms of section 28 and 30 of the National Environmental Management Act (Act 107 of 1998) (NEMA) and section 19 and 20 of the National Water Act No.36 of 1998, any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the environmental authorisation reads through and understands the legislative requirements pertaining to the project. It is the Applicant's responsibility to take reasonable measures which include informing and educating contractors and employees about the environmental risks of their work and training them to operate in an environmentally acceptable manner.
87. Section 21 (c) and (i) water use licence must be obtained before the commencement of the proposed activities. This authorisation refers only to activity as specified and described in the signed design report and drawings listed under documentation submitted for consideration as per item 1 above.
88. In the case of pollution at a later stage, the cause of the pollution must be determined, and remediation measures must be implemented to reduce the potential for migration of any contaminants from the site.

Date of Environmental Authorisation: 07/09/2023



Mr Sabelo Malaza

**Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment**

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 12 November 2021.
- b) The information contained in the EIAr dated August 2022.
- c) The comments received from interested and affected parties as included in the EIAr dated August 2022.
- d) Mitigation measures as proposed in the EIAr and the EMPr.
- e) The information contained in the specialist studies contained within the appendices of the EIAr dated August 2022 and as appears below:

Title	Prepared by	Date
Terrestrial Biodiversity Impact Assessment	Digital Earth (Pty) Ltd	30 June 2022
Wetland Delineation and Aquatic Biodiversity Impact Assessment	Nepid Consultants CC	1 August 2022
Geohydrological Investigation	P.G. Hansmeyer & B. Vermeulen	June 2022
Geotechnical Investigation Report	BTW & ASSOCIATES (PTY)Ltd	May 2018
Cultural Heritage Impact Assessment	J A van Schalkwyk	April 2022
Palaeontological Assessment	Banzai Environmental (Pty) Ltd	April 2022
Air Quality Impact Assessment	Nick Grobler	May 2022
Engineering Design	WSM GROUP	March 2022
EMPr	Savannah Environmental (Pty) Ltd	August 2022

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.

- b) The need for the proposed project stems from the fact that it is too costly for Majuba Power Station to transport and dispose of their general waste at the Middelburg Landfill Site and as such, there is a need for a new general waste disposal site closer to the power station to limit costs.
- c) The EIA dated August 2022 identified all legislation and guidelines that have been considered in the preparation of the EIA.
- d) The location of the proposed landfill site.
- e) The methodology used in assessing the potential impacts identified in the EIA dated August 2022 and the specialist studies have been adequately indicated.
- f) A sufficient public participation process was undertaken, and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 as amended for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIA dated August 2022 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the EIA dated August 2022 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMP measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIA and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Landfill Layout Plan

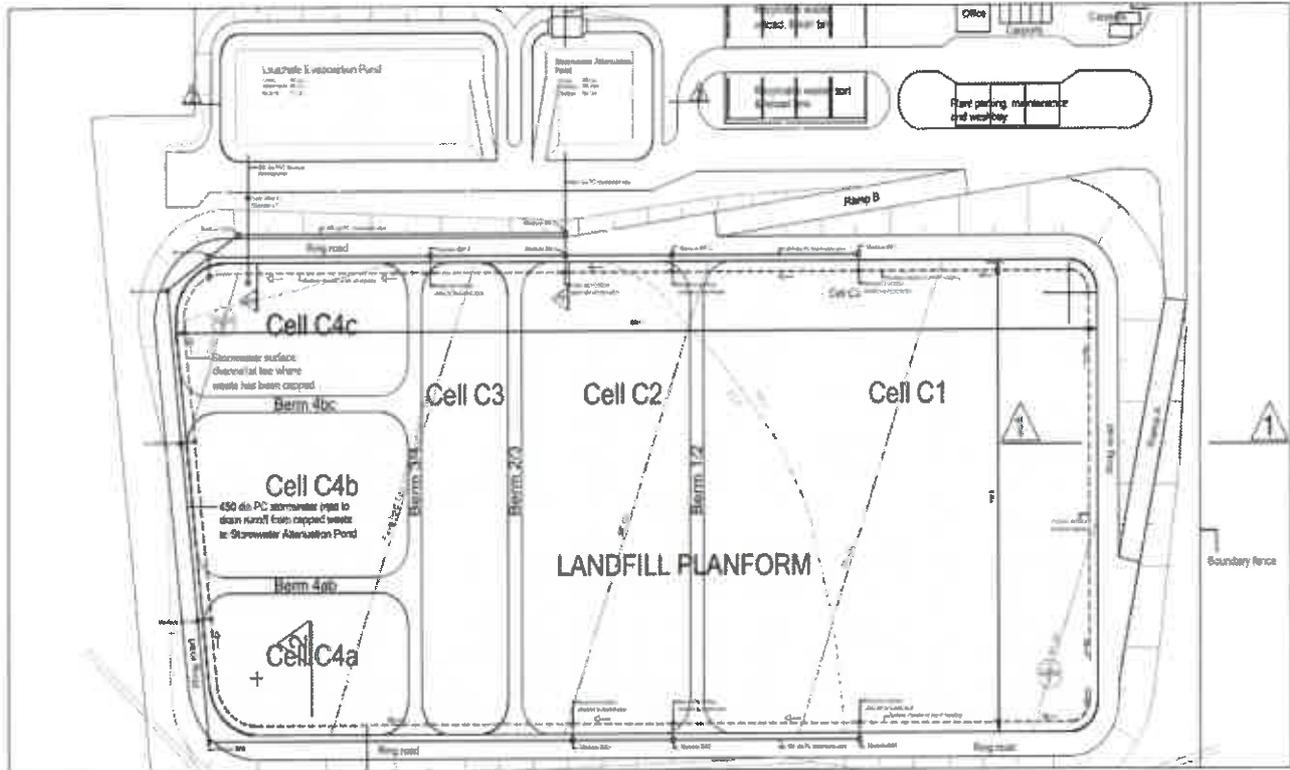


Figure 1: Layout map of the general waste landfill site.

ANNEXURE 3

SUGGESTED PARAMETERS FOR DETECTION MONITORING

Alkalinity (Total Alkalinity)
Ammonia (NH₃) as N
Chemical oxygen demand (COD)
Chloride as Cl
Electrical conductivity (EC)
Nitrate (NO₃) as N
Nitrite (NO₂) as N
pH – Value
Potassium (K)
Total dissolved solids (TDS)
Calcium (Ca)
Fluoride as F
Magnesium (Mg)
Sodium as Na
Sulphate as SO₄

APPENDIX 4

MONITORING BOREHOLE DETAILS

Borehole No.	Southings	Eastings	Monitoring Frequency
BH1	S 27° 07' 05.4"	E 29° 46' 14.8"	Quarterly
BH2	S 27° 07' 21.6"	E 29° 46' 16.0"	
BH3	S 27° 07' 17.1"	E 29° 46' 29.4"	
BH4	S 27° 07' 03.4"	E 29° 46' 27.5"	