environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

Please submit your comments to
Mr. Ryan Nel
Camden Effluent Management System Upgrade Project Public Participation Team
Baagi Environmental Consultancy CC
P O Box 72847, Lynwood Ridge, Pretoria, 0040
Tel: 012 365 2546 x7
Fax: 012 365 3217
Email: public@baagi.co.za
The due date for comments on Draft Basic Assessment Report is the 28th May 2013

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES	**NO √**

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

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1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

Project Description

The project has **two main components** namely the construction of the **Camden Surge Tower**, which falls under the ambient of NEMWA, and the **Reclamation dam pumping capacity upgrade**, which falls under the ambient of NEMA.

Camden Surge Tower

The Ash Water Return Reservoir, as the high level dam on site, receives water from De Jagers Pan (Ash Water dam) and supplies water, by means of gravity feed lines to the sluice water pumping system used to supply water at the correct flow and pressures for ashing and dusting activities from Unit 1 and Unit 8 (boiler units). The problem with the AWR system is that it has zero redundancy and the current condition of the AWRR is that it is partially blocked with various matter including, a black sludge and ash. Due to the fact that zero redundancy exists in the ash water return supply system to the station sluice pumping system and due to the continuous high demand of electricity supply to the national grid, no opportunity exists in conducting any kind of preventative maintenance or cleaning of the AWRR as the reservoir supply of water for ashing and dusting is required 24 hours a day. Therefore, it is necessary to construct additional infrastructure, in creating additional capacity to the station from a high level dam (reservoir), allowing systems to be interchanged in the event of emergencies in water supply from either source or in the event of preventative maintenance to be done on either system.

It is therefore purposed that a Surge Tower be constructed to complement the existing system with an additional reservoir that will provide a 2m additional static head with a capacity of 3050m^3. The associated Surge Tower infrastructure will a small substation (10m x 10m) to automate the flow between the two reservoirs and the pumping station at De Jagers Pan and pipes (<1000m) from the new tank which will tie into the existing pipe network for the AWRR.

Camden Reclamation Dam Pumping Capacity Upgrade

The pumping capacity of the Reclamation Dam needs to be increased so that the dam can be emptied within 48hrs in case of emergency (e.g. rain storms). This part of the project will entail either installing additional pumps to the existing pumps or completely replacing the pumps with new ones. The discharge pipeline will either be the existing one or an additional one that may be installed depending on the flow calculations. (Please note that the discharge points will remain the same.)

Project Location

The proposed project is situated within the boundary of Camden Power Station, within the Camden Power Station plant area. Camden Power Station is approximately 12km south-west of Ermelo, situated within the Msukaligwa Local Municipality, Mpumalanga Province.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	**Description of project activity**
Regulation 544 No.37: The expansion of facilities or infrastructure for the bulk transportation of water, sewage or storm water where: (a) the facility or infrastructure is expanded by more than 1000 metres in length or; (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more;	The pumping capacity needs to be increased so that the dam can be emptied within 48hrs in case of emergency. The pumping capacity will be upgraded to have an increased throughput of more than 10% of the current throughput: Dam capacity = 43 000 m^3 Flow rate = 895.8 m^3/hour Time to empty dam = 48 hours Estimated pipe work distance = 1000m
Listed activity as described in GN 718	**Description of project activity**
Category A No. 2: The storage, including temporary storage, of hazardous waste at a facility that has the capacity to store in excess of 35m^3 of hazardous at any one time, excluding the storage of hazardous waste in lagoons.	Construction of a Surge Tower, with a capacity of 3050m^3, in order to serve as a bypass storage facility for hazardous ash wastewater from the De Jager's Pan.
Category B No. 2: The reuse and recycling of hazardous waste.	Hazardous wastewater from the Surge Tower will be pumped to the plant for Materials handling processes.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Surge Tower to be constructed to complement the existing system with an additional reservoir that will provide a 2m additional static head with a capacity of 3050m^3. The surge tower is to be constructed adjacent to the existing AWRR within the Camden Power Station plant area.	26º37'23.47"	30º05'23.77"
Increase the pumping capacity of the Reclamation dam to more than 10% of the current throughput so that the dam can be emptied within 48hrs in case of emergency (e.g. rain storms).-	26º37'13.07"	30º05'59.88"
Start Point of pipe work	26º37'13.07"	30º05'59.88"
End Points of pipe work-		
• AWRR	26º37'25.44"	30º05'28.12"
• Camden Power Station (Plant)	26º37'19.34"	30º05'24.77"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	**N/A**	**N/A**
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
The Partitioning of the Ash Water Return Reservoir (AWRR) into two separate cells to allow for a partitioned section (Cell 1) to undergo maintenance whilst the other partitioned section (Cell 2) continues to supply wastewater for ashing and dusting of boiler units 1 to 8. The partitioning of the AWRR will require ceasing operations at the Camden Power Station during construction.	26º37'25.44"	30º05'28.12"

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity	**N/A**	**N/A**
• Middle/Additional point of the activity	**N/A**	**N/A**
• End point of the activity	**N/A**	**N/A**
Alternative S2 (if any)		
• Starting point of the activity	**N/A**	**N/A**
• Middle/Additional point of the activity	**N/A**	**N/A**
• End point of the activity	**N/A**	**N/A**
Alternative S3 (if any)		
• Starting point of the activity	**N/A**	**N/A**
• Middle/Additional point of the activity	**N/A**	**N/A**

• End point of the activity	**N/A**	**N/A**

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	**N/A**	**N/A**
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	**N/A**	**N/A**
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	**N/A**	**N/A**

c) Technology alternatives

Alternative 1 (preferred alternative)
N/A
Alternative 2
N/A
Alternative 3
N/A

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
Alternative 2
The Surge Tower will be constructed in two phases and the pumping capacity of the Reclamation dam will be increased to less than 10% of the current throughput.
Alternative 3

e) No-go alternative

The "No-go" alternative entails the scenario if the project is not undertaken and therefore, represents keeping the status quo. If the Surge Tower is not constructed, then the efficiency problems with regards to ashing and dusting operations at the Camden Power Station boiler units will continue. The continued problems within the boiler units will lead to ashing and dusting activities not being completed in the required timeframes which will lead to ashing and dusting back logs which then result in environmental contraventions and load losses. If the pumping capacity of the Reclamation Dam is not increased, then the dam would not be able to be

sufficiently emptied in case of emergency (e.g. Rain Storm). This may result in the flooding of the dam causing various negative environmental impacts and health and safety concerns.

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1 (Surge Tower)	2250m^2
Alternative A1 (Pump upgrade >10%)	35m^2
Alternative A2 (Phased Surge Tower)	2250m^2
Alternative A2 (Pump upgrade <10%)	35m^2
Alternative A3 (AWRR Partition)	7850m^2

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (Pump upgrade >10% pipe work)	1000m
Alternative A2 ((Pump upgrade <10% pipe work)	1000m
Alternative A3 (if any)	**N/A**

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Alternative A1 (Surge Tower)	2250m^2
Alternative A1 (Pump upgrade >10%)	35m^2
Alternative A2 (Phased Surge Tower)	2250m^2
Alternative A2 (Pump upgrade <10%)	35m^2
Alternative A3 (AWRR Partition)	7850m^2

4. SITE ACCESS

1. ALTERNATIVES 1

Does ready access to the site exist?	**YES √**	NO
If NO, what is the distance over which a new access road will be built		**N/A**

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

2. ALTERNATIVES 2

Does ready access to the site exist?	**YES √**	NO
If NO, what is the distance over which a new access road will be built		**N/A**

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

3. ALTERNATIVES 3

Does ready access to the site exist?	**YES √**	NO
If NO, what is the distance over which a new access road will be built		**N/A**

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

5. LOCALITY MAP (ATTACHED IN APPENDIX A)

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

6. LAYOUT/ROUTE PLAN (ATTACHED IN APPENDIX A)

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP (ATTACHED IN APPENDIX A)

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS (ATTACHED IN APPENDIX B)

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION (ATTACHED IN APPENDIX C)

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	**YES**√	NO	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES**√	NO	Please explain
The surge tower and reclamation dam pumping upgrade will allow for the continuation of operations at Camden Power Station, thereby allowing for the continuation of electricity generated. Continuous electricity supply is vital for economic growth and infrastructure development (priority areas) and the supply of electricity for areas surrounding the power station, within the province.			
(b) Urban edge / Edge of Built environment for the area	**YES**√	NO	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial.			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	**NO**√	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial. This will not compromise the IDP or the SDF. The continued supply of electricity to the local municipality will help aid the implementation of the Local Municipalities IDP and SDF.			
(d) Approved Structure Plan of the Municipality	**YES**√	NO	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	**NO**√	Please explain
The approval of this application and the associated activities would no compromise the integrity of the existing environmental management priorities for the area. The Surge Tower and the Reclamation dam both fall within the Camden Power Station plant area, which is zoned industrial and is considered to have No Natural Areas Remaining.			
(f) Any other Plans (e.g. Guide Plan)	YES	**NO**√	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial, therefore, should not affect any Local, Provincial or National Plans.			

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	**YES√**	NO	Please explain
The surge tower will allow for the continuation of operations at Camden Power Station, thereby allowing for the continuation of electricity generated. Continuous electricity supply is considered as a priority with regards to the IDP.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	**YES√**	NO	Please explain
The surge tower will help to ensure continued electricity generation, therefore will ensure continued electricity supply to the load network. The generation and supply of electricity is important for continued productivity and for economic growth.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	**YES√**	NO	Please explain
The electricity required for the surge tower and the reclamation dam upgrade in negligible and electricity is directly accessed at the power station and therefore, will not affect the local municipality's power supply.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	**NO√**	Please explain
The project is not part of the infrastructure planning of the municipality, however, the surge tower will allow for the continuation of electricity generation and thereby will provide the necessary electricity for infrastructure development within the local municipality. The Surge Tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial. Therefore, there are no expected negative implication on the infrastructure planning of the local municipality.			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	**NO√**	Please explain
The project is for the efficient and continued operations at the Camden Power Station and does not form any part of a national programme.			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	**YES**√	NO	Please explain
The land use is regarded as industrial, is within the Camden Power Station plant area and is highly degraded as a result of existing activities. Therefore, the extent of associated infrastructure (pipelines) will be minimised, there is existing storm water management infrastructure and the extent of negative impacts will be minimised.			
9. Is the development the best practicable environmental option for this land/site?	**YES**√	NO	Please explain
The land use is regarded as industrial, is within the Camden Power Station plant area and is highly degraded as a result of existing activities. Therefore, the extent of associated infrastructure (pipelines) will be minimised, there is existing storm water management infrastructure and the extent of negative impacts will be minimised.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	**YES**√	NO	Please explain
Minimal negative environmental impacts are expected to be generated from the activities as a result of these activities being constructed within the Camden Power Station plant area. The benefits of the proposed activities, would be the correction of the current inefficiency which would help in the continuous generation of electricity at Camden Power Station and the prevention of flooding (human health and environmental risk) as a result of increased pumping capacity at the Reclamation Dam.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	**NO**√	Please explain
The proposed land use would not set a precedent for similar activities as the Surge Tower and Reclamation Dam both fall within the Camden Power Station plant area, which is zoned as industrial.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	**NO**√	Please explain
Minimal negative environmental impacts are expected to be generated from the activities as a result of these activities being constructed within the Camden Power Station plant area., which is zoned as industrial.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	**NO**√	Please explain
The surge tower and reclamation dam both fall within the Camden Power Station plant area, which is zoned as industrial and has been in existence for over 50 years.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	**YES**√	NO	Please explain
The project will ensure continued generation of electricity and the subsequent supply of electricity, which is regarded as part of the Strategic Integrated Project 10: Electricity Transmission and Distribution for all. The continued generation of electricity will ensure the provision of access to electricity for all and support economic development.			

15. What will the benefits be to society in general and to the local communities?	Please explain
The benefits of the proposed activities, would be the correction of the current inefficiency which would help in the continuous generation of electricity at Camden Power Station, therefore will ensure continued electricity supply to the load network. The generation and supply of electricity is important for continued productivity and for economic growth.	
16. Any other need and desirability considerations related to the proposed activity?	Please explain
No opportunity exists in conducting any kind of preventative maintenance or cleaning of the AWRR as the reservoir supply of water for ashing and dusting is required 24 hours a day. Therefore, it is necessary to construct additional infrastructure. The pumping capacity of the Reclamation Dam needs to be increased so that the dam can be emptied within 48hrs in case of emergency (e.g. rain storms).	
17. How does the project fit into the National Development Plan for 2030?	Please explain
The main objectives of the National Development Plan for 2030 job creation and infrastructure development. The effective and continued generation of electricity form Camden Power Station is essential for economic growth and for infrastructure development.	
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.	
The Basic Assessment process undertaken to date has achieved the following in terms of incorporating the objectives of IEM into the process (as set out in Section 23 of NEMA): • Ensuring the identification, prediction and evaluation the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in Section 2; • Ensuring that the impacts of activities on the environment receive adequate consideration before actions are taken in connection with them; • Ensuring adequate and appropriate opportunity for public participation in decisions that may affect the environment; • Ensuring the consideration of environmental attributes in management and decision making which may have a significant effect on the environment; and • Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.	

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.
The following points demonstrate how the principles in Section 2 of NEMA have been applied: • The potential pollution or degradation to the environment has been minimised through effective site selection (within existing plant area) and through the proposed mitigation measures detailed in the EMPr and Appendix F. • The site is already transformed and degraded through historic and current activities and no cultural or heritage resources are on the site. • The waste generated from the construction phase will be adequately stored and disposed of at the relevant registered waste facilities; • The potential risks to human health have been considered and included in the assessment of impacts; • The proposed activities to be constructed will be in accordance with all applicable environmental and international legislation/standards and any other applicable legislation or standards; • The proposed project will ensure continued supply of electricity; and • Throughout the Basic Assessment process information has been made freely available to any Interested and Affected Party requesting information ensuring transparency in the process.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
The Constitution of the Republic of South Africa	The Constitution of South Africa states that everyone has the right to an environment that is not harmful to his or her health or well-being and to have the environment protected for the benefit of present and future generations.	Minister of Justice and Constitutional Development	18 December 1996
National Environmental Management: Waste Act	The main legislative piece that aims to consolidate waste management within South Africa.	Minister of Environmental Affairs (DEA)	10 March 2009
National Environmental Management Act	The proposed activities will be undertaken in accordance to the environmental management principles envisioned in the National Environmental Management Act.	Minister of Environmental Affairs (DEA)	27 November 1998
National Water Act	The Act calls for actions that will prevent and remedy the effects of pollution generated by its operations and those that will address emergency incidences.	Minister of Water Affairs (DWA)	26 August 1998
National Environmental Management Biodiversity Act	The proposed activities should be situated in a manner that avoids threatened or protected ecosystems.	Minister of Environmental Affairs (DEA)	3 August 2009

National Heritage Resources Act	A Heritage Resource Permit from SAHRA will be required for the disturbance, removal or destruction of any heritage site, archaeological site or paleontological site, burial ground, grave, or any public monument or memorial.	South African Heritage Resources Agency (SAHRA)	28 April 1999

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

1. ALTERNATIVE 1 (PREFFERED ALTERNATIVE)

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES√**	NO
If YES, what estimated quantity will be produced per month?	To be determined	

How will the construction solid waste be disposed of (describe)?

The construction activities associated with the Surge Tower and Reclamation dam will include the disposing of redundant and existing infrastructure and the installation of new infrastructure (Surge Tower consisting of tanks, pipe works etc). Construction waste from construction activities will be disposed of in a demarcated metal waste skip, and disposed of at a registered landfill site.

Where will the construction solid waste be disposed of (describe)?

Construction waste will be disposed of at the Msukaligwa landfill site.

Will the activity produce solid waste during its operational phase?	YES	**NO√**
If YES, what estimated quantity will be produced per month?		**N/A**

How will the solid waste be disposed of (describe)?

N/A

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	YES	**NO√**

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	**NO√**

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	**NO√**
If YES, what estimated quantity will be produced per month?		**N/A**
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	**NO√**

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	**NO√**

If YES, provide the particulars of the facility:

Facility name:	**N/A**		
Contact person:	**N/A**		
Postal address:	**N/A**		
Postal code:	**N/A**		
Telephone:	**N/A**	**Cell:**	**N/A**
E-mail:	**N/A**	**Fax:**	**N/A**

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	**YES√**	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO√**

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

The construction activities will generate dust and exhaust emissions. However, the quantity of dust generated during construction is expected to be minimal and have negligible short term impacts around the immediate vicinity of the Camden Power Station plant area, therefore, no authorisation for such emissions are required.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	**YES√**	NO

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	**YES**√	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO**√

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the noise in terms of type and level:

Noise will only be generated during construction activities. However, as a result of the activity being situated within the Camden Power Station plant area, the noise generated will be negligible and will not have a cumulative effect on the surrounding communities.

2. ALTERNATIVE 2 (PHASED SURGE TOWER AND <10% PUMPING CAPACITY)

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**√	NO
If YES, what estimated quantity will be produced per month?	To be determined	

How will the construction solid waste be disposed of (describe)?

The construction activities associated with the Surge Tower and Reclamation dam will include the disposing of redundant and existing infrastructure and the installation of new infrastructure (Surge Tower consisting of tanks, pipe works etc). Construction waste from construction activities will be disposed of in a demarcated metal waste skip, and disposed of at a registered landfill site.

Where will the construction solid waste be disposed of (describe)?

Construction waste will be disposed of at the Msukaligwa landfill site.

Will the activity produce solid waste during its operational phase?	YES	**NO**√
If YES, what estimated quantity will be produced per month?		**N/A**

How will the solid waste be disposed of (describe)?

N/A

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	YES	**NO√**

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	**NO√**

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	**NO√**
If YES, what estimated quantity will be produced per month?		**N/A**
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	**NO√**

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	**NO√**

If YES, provide the particulars of the facility:

Facility name:	**N/A**		
Contact person:	**N/A**		
Postal address:	**N/A**		
Postal code:	**N/A**		
Telephone:	**N/A**	**Cell:**	**N/A**
E-mail:	**N/A**	**Fax:**	**N/A**

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	**YES√**	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO√**

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

The construction activities will generate dust and exhaust emissions. However, the quantity of dust generated during construction is expected to be minimal and have negligible short term impacts around the immediate vicinity of the Camden Power Station plant area, therefore, no authorisation for such emissions are required.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	**YES**√	NO

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	**YES**√	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO**√

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If NO, describe the noise in terms of type and level:

Noise will only be generated during construction activities. However, as a result of the activity being situated within the Camden Power Station plant area, the noise generated will be negligible and will not have a cumulative effect on the surrounding communities.

3. <u>ALTERNATIVE 3 (AWRR PARTITION)</u>

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**√	NO
If YES, what estimated quantity will be produced per month?	To be determined	

How will the construction solid waste be disposed of (describe)?

The construction activities associated with the partitioning of the AWRR will be minimal as no major infrastructure will be required. Construction waste from construction activities will be disposed of in a demarcated metal waste skip, and disposed of at a registered landfill site.

Where will the construction solid waste be disposed of (describe)?

Building waste will be disposed of at the Msukaligwa landfill site.

Will the activity produce solid waste during its operational phase?	YES	**NO**√
If YES, what estimated quantity will be produced per month?		**N/A**

How will the solid waste be disposed of (describe)?

N/A

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	YES	**NO√**

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	**NO√**

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	**NO√**
If YES, what estimated quantity will be produced per month?		**N/A**
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	**NO√**

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	**NO√**

If YES, provide the particulars of the facility:

Facility name:	**N/A**		
Contact person:	**N/A**		
Postal address:	**N/A**		
Postal code:	**N/A**		
Telephone:	**N/A**	**Cell:**	**N/A**
E-mail:	**N/A**	**Fax:**	**N/A**

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	**YES√**	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO√**

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If NO, describe the emissions in terms of type and concentration:

The construction activities will generate dust and exhaust emissions. However, the quantity of dust generated during construction is expected to be minimal and have negligible short term impacts around the immediate vicinity of the Camden Power Station plant area, therefore, no authorisation for such emissions are required.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	**YES√**	NO

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	**YES√**	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	**NO√**

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If NO, describe the noise in terms of type and level:

Noise will only be generated during construction activities. However, as a result of the activity being situated within the Camden Power Station plant area, the noise generated will be negligible and will not have a cumulative effect on the surrounding communities.

13. WATER USE

1. <u>ALTERNATIVE 1 (PREFFERED ALTERNATIVE)</u>

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	**The activity will not use water**

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:		litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES	**NO√**

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

2. <u>ALTERNATIVE 2 (PHASED SURGE TOWER AND <10% CAPACITY)</u>

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	**The activity will not use water**

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES / **NO√**

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

3. ALTERNATIVE 3 (AWRR PARTITION)

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	**The activity will not use water**

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES / **NO√**

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

1. ALTERNATIVE 1 (PREFFERED ALTERNATIVE)

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The surge tower is designed with a 2m head, to provide extra pressure through gravity feed line, thereby reducing the pumping required which subsequently reduces the electricity requirements. The reclamation dam pump upgrade has no design measures to increase energy efficiency, However limited energy increase is required for operations.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

2. ALTERNATIVE 2 (PHASED SURGE TOWER AND PUMPING CAPACITY <10%)

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The surge tower is designed with a 2m head, to provide extra pressure through gravity feed line, thereby reducing the pumping required which subsequently reduces the electricity requirements. The reclamation dam pump upgrade has no design measures to increase energy efficiency, However limited energy increase is required for operations.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

3. ALTERNATIVE 3 (AWRR PARTITION)

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The AWRR partitioning would not have design measures to increase energy efficiency, However limited energy increase is required for operations as it is an already existing activity.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A): [ ]

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES | **NO√**

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Mpumalanga
District Municipality	Gert Sibande District Municipality
Local Municipality	Msukaligwa Local Municipality
Ward Number(s)	11
Farm name and number	The Consolidated Farm Camden Power Station 246 IT
Portion number	Re
SG Code	T0IR00000000024600000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Industrial

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES | **NO√**

(SURGE TOWER SITE - PREFFERED ALTERNATIVE AND ALTERNATIVE 2)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
.2 Plateau		2.5 Open valley		2.8 Dune	
2.3 Side slope of hill/mountain		2.6 Plain	**X**	2.9 Seafront	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1: Surge Tower	
Shallow water table (less than 1.5m deep)	YES	**NO**√
Dolomite, sinkhole or doline areas	YES	**NO**√
Seasonally wet soils (often close to water bodies)	YES	**NO**√
Unstable rocky slopes or steep slopes with loose soil	YES	**NO**√
Dispersive soils (soils that dissolve in water)	YES	**NO**√
Soils with high clay content (clay fraction more than 40%)	YES	**NO**√
Any other unstable soil or geological feature	YES	**NO**√
An area sensitive to erosion	YES	**NO**√

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface	**Building or other structure**	**Bare soil**

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	**NO**√	UNSURE
Non-Perennial River	YES	**NO**√	UNSURE
Permanent Wetland	YES	**NO**√	UNSURE
Seasonal Wetland	YES	**NO**√	UNSURE
Artificial Wetland	YES	**NO**√	UNSURE
Estuarine / Lagoonal wetland	YES	**NO**√	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

N/A

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	**Dam or reservoir**	Polo fields
Low density residential	Hospital/medical centre	Filling station [H]
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	Agriculture

Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "[N] "are ticked, how will this impact / be impacted upon by the proposed activity?

N/A

If any of the boxes marked with an "[An]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "[H]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	**NO**√
Core area of a protected area?	YES	**NO**√
Buffer area of a protected area?	YES	**NO**√
Planned expansion area of an existing protected area?	YES	**NO**√
Existing offset area associated with a previous Environmental Authorisation?	YES	**NO**√
Buffer area of the SKA?	YES	**NO**√

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

(RECLAMATION DAM - PREFFERED ALTERNATIVE AND ALTERNATIVE 2)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley		2.8 Dune	
2.3 Side slope of hill/mountain		2.6 Plain	**X**	2.9 Seafront	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1: Reclamation Dam	
Shallow water table (less than 1.5m deep)	YES	**NO√**
Dolomite, sinkhole or doline areas	YES	**NO√**
Seasonally wet soils (often close to water bodies)	YES	**NO√**
Unstable rocky slopes or steep slopes with loose soil	YES	**NO√**
Dispersive soils (soils that dissolve in water)	YES	**NO√**
Soils with high clay content (clay fraction more than 40%)	YES	**NO√**
Any other unstable soil or geological feature	YES	**NO√**
An area sensitive to erosion	YES	**NO√**

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	**Veld dominated by alien species[E]**	Gardens
Sport field	Cultivated land	Paved surface	**Building or other structure**	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	**NO√**	UNSURE
Non-Perennial River	YES	**NO√**	UNSURE
Permanent Wetland	YES	**NO√**	UNSURE
Seasonal Wetland	YES	**NO√**	UNSURE
Artificial Wetland	YES	**NO√**	UNSURE
Estuarine / Lagoonal wetland	YES	**NO√**	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

N/A

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	**Dam or reservoir**	Polo fields
Low density residential	Hospital/medical centre	Filling station [H]
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	Agriculture

Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N "are ticked, how will this impact / be impacted upon by the proposed activity?

N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	**NO√**
Core area of a protected area?	YES	**NO√**
Buffer area of a protected area?	YES	**NO√**
Planned expansion area of an existing protected area?	YES	**NO√**
Existing offset area associated with a previous Environmental Authorisation?	YES	**NO√**
Buffer area of the SKA?	YES	**NO√**

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

(ASH WATER RETURN RESERVIOR PARTITION - ALTERNATIVE 3)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley		2.8 Dune	
2.3 Side slope of hill/mountain		2.6 Plain	**X**	2.9 Seafront	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S3: AWRR	
Shallow water table (less than 1.5m deep)	YES	**NO**√
Dolomite, sinkhole or doline areas	YES	**NO**√
Seasonally wet soils (often close to water bodies)	YES	**NO**√
Unstable rocky slopes or steep slopes with loose soil	YES	**NO**√
Dispersive soils (soils that dissolve in water)	YES	**NO**√
Soils with high clay content (clay fraction more than 40%)	YES	**NO**√
Any other unstable soil or geological feature	YES	**NO**√
An area sensitive to erosion	YES	**NO**√

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface	**Building or other structure**	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	**NO**√	UNSURE
Non-Perennial River	YES	**NO**√	UNSURE
Permanent Wetland	YES	**NO**√	UNSURE
Seasonal Wetland	YES	**NO**√	UNSURE
Artificial Wetland	YES	**NO**√	UNSURE
Estuarine / Lagoonal wetland	YES	**NO**√	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

N/A

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station [H]
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	Agriculture

Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "[N] "are ticked, how will this impact / be impacted upon by the proposed activity?

N/A

If any of the boxes marked with an "[An]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "[H]" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	**NO**√
Core area of a protected area?	YES	**NO**√
Buffer area of a protected area?	YES	**NO**√
Planned expansion area of an existing protected area?	YES	**NO**√
Existing offset area associated with a previous Environmental Authorisation?	YES	**NO**√
Buffer area of the SKA?	YES	**NO**√

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	**NO√**
	Uncertain	
N/A		

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

N/A

Will any building or structure older than 60 years be affected in any way?	YES	**NO√**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	**NO√**

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

According to the 2001 National Census and the 2007 community survey, the labour force comparison form 2001 to 2007, within the Msukaligwa Local Municipality should that the employment rate in 2007 stood at 48.3% which has increased considerably from 2001, which had an employment rate of 11.5%. There has been a decrease in unemployment during the period of 2001 to 2007. The economically active persons are showing an increase in 2007 when compared to 2001 figures as more people entered the job market due to population growth. During the 2001 to 2007 period an estimated 10 445 jobs were created which subsequently reduced the unemployment rate to 14.3% (IDP, 2012).

Economic profile of local municipality:

The five leading sectors in terms of contribution to the economy of Msukaligwa Local Municipality which are finance, community services, transport, trade and mining which contributes 23.8%, 20.9%, 17.5%, 14.4% and 12.2% respectively. Msukaligwa Local Municipality is strategically located within Gert Sibande District Municipality with 3 major provincial roads and 3 national roads crossing through the municipality, in particular through Ermelo. This creates high potential in tourism and economic growth as these roads link Msukaligwa Local Municipality with Gauteng, KwaZulu Natal, Swaziland and the eastern part of Mpumalanga Province. The economic force of the Msukaligwa Local Municipality is cantered around agriculture, forestry and coal mining. Local beneficiation of raw agricultural resources and other minerals remains

a challenge as this municipality does contain adequate industry. Road and rail haulages of coal supplying power stations and exports has also contributed to the creation of jobs within the municipality (IDP, 2012).

Level of education:

The 2010 Socio-Economic profile for the municipality showed there is a decrease of 26% of persons with no schooling between the year 2001 to 2010. The statistic also show that 26.3% of individuals (15 +) have a matric and post matric qualification. The functional literacy rate in the municipality is 64.9%. As a response to the United Nations Millennium Development Goal, the Department of Education has embarked on a programme to improve/upgrade/contracts a number of schools within the municipality. the scholar transport programme has also provided opportunity for transporting scholars who may be far from schools (IDP, 2012).

b) Socio-economic value of the activity

b) 1) Surge Tower

What is the expected capital value of the activity on completion?	R28.58M	
What is the expected yearly income that will be generated by or as a result of the activity?	Ensuring the continued future water supply to the power station for ashing and dusting processes - difficult to place monetary value to sustainability	
Will the activity contribute to service infrastructure?	YES	**NO√**
Is the activity a public amenity?	YES	**NO√**
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	Camden using contractors for daily operations and maintenance of plant.	
What is the expected value of the employment opportunities during the development and construction phase?	Operating and maintenance will be part of the existing ops and maintenance contracts for the plant	
What percentage of this will accrue to previously disadvantaged individuals?	100%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	0	
What is the expected current value of the employment opportunities during the first 10 years?	R0 (Contractual as stated above)	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

b) Socio-economic value of the activity

b) 2) Reclamation dam pump upgrade

What is the expected capital value of the activity on completion?	R13M
What is the expected yearly income that will be generated by or as a result of the activity?	None

Will the activity contribute to service infrastructure?	YES	**NO√**
Is the activity a public amenity?	YES	**NO√**
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	Contractor appointed only for design work at this stage.	
What is the expected value of the employment opportunities during the development and construction phase?	Will depend on the design outcome from the appointed contractor.	
What percentage of this will accrue to previously disadvantaged individuals?	To be determined by the tender evaluation team taking into consideration SDL.	
How many permanent new employment opportunities will be created during the operational phase of the activity?	None. Existing operation personnel to be used.	
What is the expected current value of the employment opportunities during the first 10 years?	R0	
What percentage of this will accrue to previously disadvantaged individuals?	Existing operation personnel to be used.	

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				**If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan**
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	**No Natural Area Remaining (NNR)**	

b) Indicate and describe the habitat condition on site

Habitat Condition	**Percentage of habitat condition class (adding up to 100%)**	**Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).**
Natural	%	

Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	40%	The surrounding area has been heavily degraded as a result of historic and current activities associated to the Camden Power Station. These include the presence of various infrastructure, slimes dams and pylons.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	60%	The site is situated within the Camden Power Station plant area. The site has been heavily transformed as a result historic and current activities associated with the power station.

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened	YES	**NO**√	YES	YES	**NO**√	YES	**NO**√

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

There is no natural area remaining. The area was historically Eastern Highveld Grassland which has been highly degraded and completely transformed by the existing Camden Power Station. The Eastern Highveld Grassland is characterised by short dense grassland dominated by the usual highveld grass composition, namely *Aristida, Digitaria, Eragrostis, Themeda* and *Tristachya*, with small, scattered rocky outcrops with wiry, sour grasses and some woody species (*Acacia caffra, Celtis africana, Diospyros lycioides* subsp *lycioides, Parinari capensis, Protea caffra, P. welwitschii* and *Rhus magalismontanum*).

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Highveld Tribune	
Date published	22 January 2013	
Publication name	Highvelder	
Date published	25 January 2013	
Site notice position	**Latitude**	**Longitude**
	26°37'02.55"	30°05'45.75"
	26°35'41.81"	30°05'24.17"
	26°31'41.06"	29°59'18.95"
	26°30'43.17"	29°57'12.47"
Date placed	17 January 2013	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

Refer to Appendix E1 for Site Notice, BID Document and Advertisements

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

The following was undertaken during the initial public participation process to inform I&APs regarding the project and activities:

- **Placement of advertisements**
- **Placement of site notices**
- **E-mailing and posting letters to I&APs on an existing I&AP register**

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	**Affiliation/ key stakeholder status**	**Contact details (tel number or e-mail address)**
Refer to attached I&AP database (Appendix E5)		

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

Refer to Appendix E2 for I&AP Notifications

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
No issues Raised by I&APs during initial Phase	N/A
PPP continues with placement of DBAR for public comment	N/A

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Refer to attached I&AP register (Appendix E5)					

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

Refer to Appendix E2 for I&AP Notifications

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State

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6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Refer to Appendix F for Impact Assessment

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Planning and Design	***Direct impacts:*** • No direct impacts are expected during the planning and design phase of the project.	• Negligible	• None
	Indirect impacts: • Undertaking of the public participation process for the basic assessment may potentially result in surrounding communities expecting job creation as a result of the development.	• Low	• Follow due process within NEMA to ensure that communities understand that no new jobs will be created as a result of this project.
	Cumulative impacts: • No cumulative impacts are expected from the planning and design phase of the project.	• Negligible	• None
Construction Phase	***Direct impacts:*** • Loss of vegetation due to construction.	• Low	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded due to historic and current activities.
	• Contamination of groundwater resources.	• Low	• None
	• Pollution damage to surface water resources as a result of	• Low	• The project is located within the Camden

	construction vehicle refuelling, chemical and wastewater spills.		Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	Indirect impacts:		
	• Degradation of surrounding areas	• Low	• Construction waste should be disposed of in a waste skip, in a demarcated area within the plant area, to ensure no contaminated run-off emanating from the disposal of construction waste
	• Increased flow rate and sedimentation of surrounding water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Low	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Local Economic Contribution	• Positive	
	Cumulative impacts:		
	• Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Creating a visual intrusion	• Low	• None
	• Security and operation lights causing light pollution	• Low	• None

Operational Phase	***Direct impacts:***		
	• Loss of vegetation due to construction.	• Low	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded due to historic and current activities.
	• Contamination of groundwater resources.	• Low	• None
	• Pollution damage to surface water resources as a result of construction vehicle refuelling, chemical and wastewater spills.	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Continued generation of electricity	• Positive	
	Indirect impacts:		
	• Degradation of surrounding areas	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Increased flow rate and sedimentation of surrounding water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Low	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing

	• Local Economic Contribution	• Positive	contaminated run-off.
	Cumulative impacts: • Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Creating a visual intrusion	• Low	• None
	• Security and operation lights causing light pollution	• Low	• None
Decommissioning and Closure	No planned decommissioning or closure as infrastructure is required for continued electricity generation.		
Alternative 2 (Phased Surge Tower and Pump Capacity <10%)			
Planning and Design	***Direct impacts:*** • No direct impacts are expected during the planning and design phase of the project.	• Negligible	• None
	Indirect impacts: • Undertaking of the public participation process for the basic assessment may potentially result in surrounding communities expecting job creation as a result of the development.	• Low	• Follow due process within NEMA to ensure that communities understand that no new jobs will be created as a result of this project.
	Cumulative impacts: • No cumulative impacts are expected from the planning and design phase of the project.	• Negligible	• None
Construction Phase	***Direct impacts:*** • Loss of vegetation due to construction.	• Moderate	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded due to historic and current activities.
	• Contamination of groundwater resources.	• Moderate	• None
	• Pollution damage to surface water resources as a result of construction vehicle refuelling, chemical and wastewater spills.	• Moderate	• The project is located within the Camden Power Station plant area, which is situated within the existing

			Camden Power Station storm water management area, thereby containing contaminated run-off.
	Indirect impacts:		
	• Degradation of surrounding areas	• Moderate	• Construction waste should be disposed of in a waste skip, in a demarcated area within the plant area, to ensure no contaminated run-off emanating from the disposal of construction waste
	• Increased flow rate and sedimentation of surrounding water resources	• Moderate	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Moderate	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Moderate	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Local Economic Contribution	• Positive	
	Cumulative impacts:		
	• Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Creating a visual intrusion	• Low	• None
	• Security and operation lights causing light pollution	• Low	• None
Operational Phase	***Direct impacts:***		
	• Loss of vegetation due to construction.	• Low	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded

			due to historic and current activities.
	• Contamination of groundwater resources.	• Low	• None
	• Pollution damage to surface water resources as a result of construction vehicle refuelling, chemical and wastewater spills.	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Continued generation of electricity	• Positive	
	• Health risk due to flooding as a result of insufficient pumping capacity	• Moderate	• None
	Indirect impacts:		
	• Degradation of surrounding areas	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Increased flow rate and sedimentation of surrounding water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Low	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Local Economic Contribution	• Positive	
	Cumulative impacts:		
	• Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is

			situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Creating a visual intrusion • Security and operation lights causing light pollution	• Low • Low	• None • None
Decommissioning and Closure	No planned decommissioning or closure as infrastructure is required for continued electricity generation.		
Alternative 3 (Ash Water Return Reservoir Partitioning)			
Planning and Design	***Direct impacts:*** • No direct impacts are expected during the planning and design phase of the project.	• Negligible	• None
	Indirect impacts: • Undertaking of the public participation process for the basic assessment may potentially result in surrounding communities expecting job creation as a result of the development.	• Low	• Follow due process within NEMA to ensure that communities understand that no new jobs will be created as a result of this project.
	Cumulative impacts: • No cumulative impacts are expected from the planning and design phase of the project.	• Negligible	• None
Construction Phase	***Direct impacts:*** • Loss of vegetation due to construction.	• Low	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded due to historic and current activities.
	• Contamination of groundwater resources.	• Low	• None
	• Pollution damage to surface water resources as a result of construction vehicle refuelling, chemical and wastewater spills.	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• The ceasing of electricity operations during construction	• High	• None

	Indirect impacts:		
	• Degradation of surrounding areas	• Low	• Construction waste should be disposed of in a waste skip, in a demarcated area within the plant area, to ensure no contaminated run-off emanating from the disposal of construction waste
	• Increased flow rate and sedimentation of surrounding water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Low	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Loss of economic growth and productivity as a result of electricity generation stoppages	• High	• None
	• Local Economic Contribution	• Positive	
	Cumulative impacts:		
	• Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
			• None
	• Creating a visual intrusion	• Low	• None
	• Security and operation lights causing light pollution	• Low	
<u>Operational Phase</u>	***Direct impacts:***		
	• Loss of vegetation due to construction.	• Low	• The project is located within the Camden Power Station plant area, which has been heavily transformed and degraded

			due to historic and current activities.
	• Contamination of groundwater resources.	• Low	• None
	• Pollution damage to surface water resources as a result of construction vehicle refuelling, chemical and wastewater spills.	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Continued generation of electricity	• Positive	
	Indirect impacts:		
	• Degradation of surrounding areas	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Increased flow rate and sedimentation of surrounding water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Influx of job seekers	• Low	• None
	• Health risks to surrounding communities as a result of contaminated run-off entering water resources	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing contaminated run-off.
	• Local Economic Contribution	• Positive	
	Cumulative impacts:		
	• Degradation of surrounding areas form contaminated run-off	• Low	• The project is located within the Camden Power Station plant area, which is situated within the existing Camden Power Station storm water management area, thereby containing

			contaminated run-off.
	• Creating a visual intrusion • Security and operation lights causing light pollution	• Low • Low	• None • None
Decommissioning and Closure	No planned decommissioning or closure as infrastructure is required for continued electricity generation.		
No-go option			
	Direct impacts: • Loss of electricity supply to the load network • Continued inefficiencies in the ashing and dusting processes within boiler units 1 to 8 • Flood risk as there in insufficient pumping capacity at the Reclamation dam	• High • High • Moderate	• None • None • None
	Indirect impacts: • Loss of economic productivity and growth • Health risk as a result of contaminated flood water entering water recourses	• High • Moderate	• None • None
	Cumulative impacts: • None		

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative 1 (preferred alternative)

The Surge Tower and the Reclamation Dam pumping upgrade is expected to have very minimal and limited negative impacts on both the surrounding environment and on the surrounding communities. This is due to the Surge Tower and Reclamation Dam being situated within the Camden Power Station plant area, which is heavily transformed and degraded (as a result of historic and current activities) the impacts to biodiversity will be minimal. As Camden Power Station has an existing storm water management system for the containment of contaminated run-off emanating from spillages and leakages, the degradation of surrounding biodiversity, including surface and groundwater resources, are expected to be minimal. The construction of the Surge Tower will also ensure continued electricity supply without the cessation of electricity generation at Camden Power Station during construction.

As a result of the project having very limited and insignificant expected impacts to the environment and that the project is vital for the continued generation of electricity, the preferred alternative is regarded as being the **most suitable and viable and should be considered.**

Alternative 2 (Phased Surge Tower and Pumping Capacity <10%)

The construction of the Surge Tower in phases would increase the significance of the impacts during the construction phase, as the duration of construction would be extended. Therefore, it is more viable for construction to be undertaken in one phase (preferred alternative) rather then being constructed in phases.

Increasing the pumping capacity of the Reclamation Dam to <10% would result in insufficient pumping capacity in the event of a emergency situation (eg. flood event). Therefore, flooding may result during the operational phase resulting in a health and safety risk and the contamination of surrounding areas. Therefore, this alternative is regarded as **not being feasible or viable and should not be considered.**

Alternative 3 (Ash Water Return Reservoir Partition)

The partitioning of the Ash Water Return Reservoir (AWRR) is expected to have very minimal and limited negative impacts on both the surrounding environment and on the surrounding communities. This is due to the AWRR being situated within the Camden Power Station plant area, which is heavily transformed and degraded (as a result of historic and current activities) the impacts to biodiversity will be minimal. As Camden Power Station has an existing storm water management system for the containment of contaminated run-off emanating from spillages and leakages, the degradation of surrounding biodiversity, including surface and groundwater resources, are expected to be minimal.

However, the partitioning of the AWRR would require shutting down ashing and dusting operations within boiler units 1 to 8 which require water supply form the AWRR 24 hours a day. The ceasing of operation during construction may result in the cessation of electricity generation which would have detrimental impacts to the load network, economic productivity and economic growth in the surrounding areas. The loss of economic productivity may result in the loss of jobs in the surrounding areas. Therefore, this alternative is regarded as **not being feasible or viable and should not be considered.**

No-go alternative (compulsory)

If the Surge Tower is not constructed, then the efficiency problems with regards to ashing and dusting operations at the Camden Power Station boiler units will continue. The continued problems within the boiler units will lead to ashing and dusting activities not being completed in the required timeframes which will lead to ashing and dusting back logs which then result in environmental contraventions and load losses.

would result in insufficient pumping capacity in the event of a emergency situation (eg. flood event). Therefore, flooding may result during the operational phase resulting in a health and safety risk and the contamination of surrounding areas.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	**YES√**	NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

Refer to the EMPr attached in Appendix G		
Is an EMPr attached?	**YES√**	NO

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

_____

NAME OF EAP

_____ _____

SIGNATURE OF EAP DATE

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility Illustrations

Appendix D: Specialist Reports
(Not Applicable)

Appendix E: Public Participation

Appendix E1: Notification Process

Appendix E2 and E4: Correspondence

Appendix E3: Comments
(Not Applicable)

Appendix E5: I&AP Register

Appendix F: Impact Assessment

Appendix G: EMPr

Appendix H: EAP CV