

2025

THE ENVIRONMENTAL MANAGEMENT PLAN FOR THE OPERATION, MAINTENANCE OF ZAMBEZI TRANSMISSION STATION AND ASSOCIATED INFRASTRUCTURES IN KHOMAS REGION



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1 LIST OF TERMS, ACRONYMS AND ABBREVIATIONS

EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act no 7 of 2007
EMP	Environmental Management Plan
ISO	International Organization for Standardization
MET	Ministry of Environment and Tourism
kV	Kilovolts
NAMPOWER	Namibia Power Corporation (Proprietary) Limited
OEMP	Operational Environmental Management plan
PV	Photovoltaic
SHEW	Safety, Health, Environment and Wellness

2 Introduction

Substations are a key and integral part of electrical power transmission network. The 400/220/132 kV Zambezi transmission station is part of the NamPower's electricity transmission Network. One of its primary functions like other substations is to convert electricity from high to low voltage using transformers and vice versa, making it suitable for distribution or for transmission over long distances. This is substation is key to NamPower as it receives electricity from Zambia via the 220kV Zambezi – Sesheke line.

The substation consists of low, medium and high voltage yards as well as storerooms, control rooms and offices. It is also houses the converter station for the 350kV Zambezi – Gerus HVDC line. A Converter Station is required at the transition point between HVDC and High Voltage Alternating Current (HVAC) to enable distribution or further transmission. There are three transmission lines connecting to Zambezi Substation namely: 350kV Zambezi – Gerus HVDC line; 220kV Zambezi – Sesheke line, Zambezi – Earth Electrode and the 66kV Zambezi – Katima line. The substation covers a footprint of 19.5 hectare. Figure 1 below shows the locality map for the Zambezi Substation.

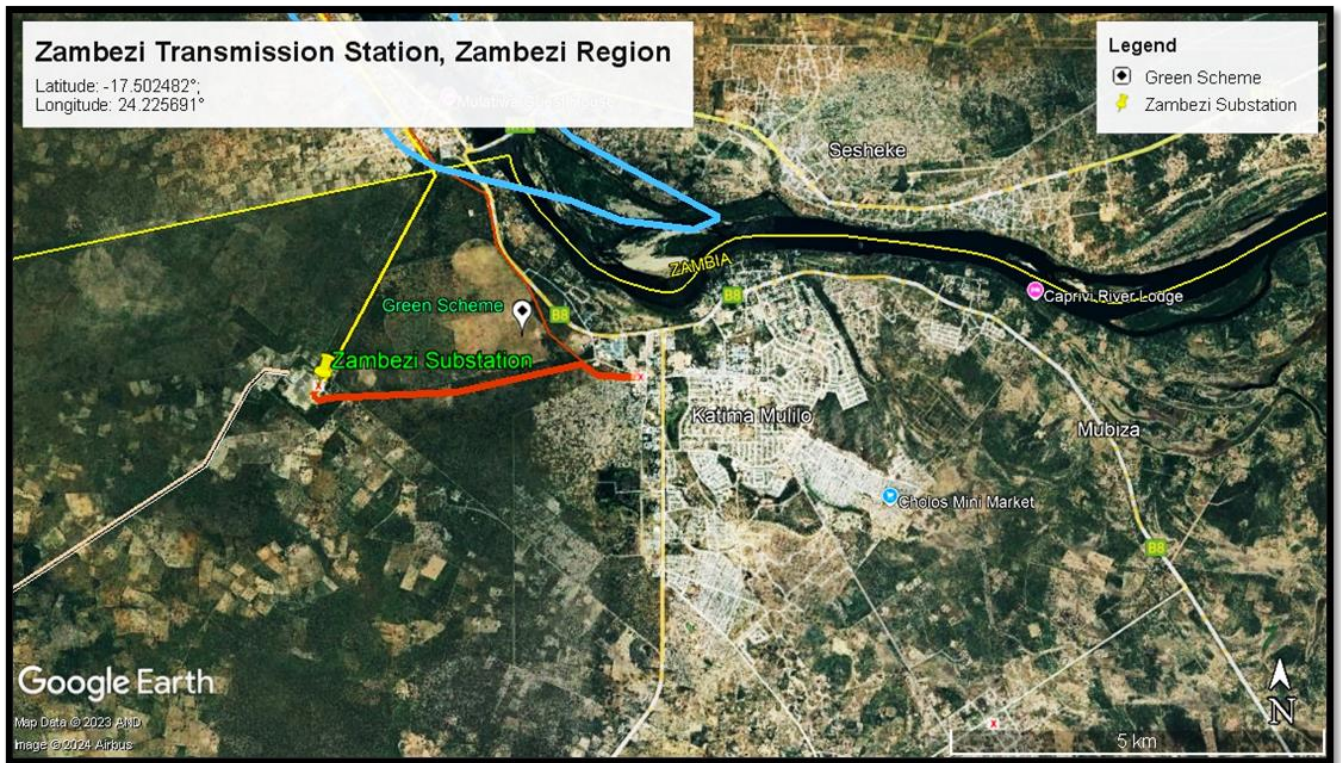


Figure 1: Locality map showing Zambezi substation



Figure 2: Zambezi Substation

The operation of the substation can have both positive and negative impact on the environment. However, the negative impacts are limited to the substation it is thus important that good management measures are implemented to ensure that environmental damage is minimised. This Environmental Management Plan (EMP) seeks to manage and keep to a minimum the negative impacts associated with the substation and at the same time, enhance the positive and beneficial impacts. The scope of this EMP include all activities associated with the operation, maintenance and upgrade of the substation. It is necessary to highlight that the EMP is a living document that should be periodically reviewed and updated. It must also be noted that the EMP should be read in conjunction with laws and regulations outlined in Table 1.

3 OBJECTIVES OF THIS ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The aim of this operational EMP is to detail the management actions required to implement the mitigation measures identified thereby ensuring that any operational phase activity is carried out in a manner that takes cognisance of environmental protection and is in line with National legislation.

This EMP has the following objectives:

- To outline mitigation measures to be implemented during the operation phase, to manage and minimize the extent of environmental impacts.
- Minimize negative impacts and enhance positive impacts associated with the operations.
- To ensure that the operational activities do not result in undue or reasonably avoidable adverse environmental impacts and ensure that any potential environmental benefits are enhanced.
- To identify key personnel who will be responsible for the implementation of the measures, outline functions and responsibilities.
- To propose mechanisms for monitoring compliance and preventing long term or permanent environmental degradation.

- To ensure that the concerns and complaints of Interested and Affected Parties (I&APs) with regards to the operational activities are addressed effectively and timely.
- Ensure compliance to legislative requirements.

4 POLICY AND LEGISLATIVE FRAMEWORK

Table 1 The legislative requirements which are applicable to the operational phase of this substation include but not limited to the ones outlined in the table below:

Legislation:	Section (s) applicable:	Implications:
Environmental Management Act no 7 of 2007	<p>Section 3</p> <p>Section 27</p> <p>Section 33 onwards</p> <p>And all other</p>	<ul style="list-style-type: none"> • All activities performed should be in line with the following principles: <ul style="list-style-type: none"> ○ Interested and affected parties should have an opportunity to participate in decision making ○ Listed activities should be subject to an EIA ○ Polluter should pay for rehabilitation ○ Pollution should be minimized • Environmental assessments should be carried out for listed activities. The proposed activity can be classified under the following range of activities: <ul style="list-style-type: none"> ○ Generation of electricity ○ Transmission of electricity • These sections detail the process to be

	applicable sections.	<p>followed to obtain a clearance certificate.</p> <ul style="list-style-type: none"> • All existing listed activities must obtain a clearance certificate within one year of the law coming into effect. Therefore, all existing activities which can be considered a listed activity should apply for clearance.
EMA Regulations GN 28-30 (GG 4878) (February 2012)	<ul style="list-style-type: none"> • Listed activity: • 5.1 • 6 – 9; 13; 15; 21 -24 • Any other applicable sections 	<ul style="list-style-type: none"> • This activity can be considered as electricity generation and transmission. • These sections detail the process to be followed in terms of producing an Environmental Assessment and this process should be adhered to during the generation of information for this document.
No. 156 Labor Act, 1992: Regulations relating to the health and safety of employees at work.	All applicable regulations	All regulations applicable to different activities must be complied with.
Labor Act no 11 of 2007	<ul style="list-style-type: none"> • Section 3 • Section 4 • Section 9 • Section 39 – 42 • All other applicable sections 	<ul style="list-style-type: none"> • Children under the age of 16 may not be employed • Forced labor may not be used. • Basic conditions of employment as stipulated by the law must be met. • The employer shall ensure the health and safety of all employees and non-employees on site. Employees must fulfil their duties to ensure their own health and safety and that of other employees. Employees may leave the workplace if reasonable measures to protect their health are not taken.
Electricity Act no 4 of 2007	<ul style="list-style-type: none"> • Section 33 	<ul style="list-style-type: none"> • Installations used for the provision of electricity

		<p>should be operated with due compliance with the requirements of laws relating to health, safety and environmental standards. Therefore – any company involved within the Electricity Supply Industry must adhere to the laws covering the previously stated aspects or stand to lose their licenses to operate.</p>
Public and Environmental Health Act no 1 of 2015	<ul style="list-style-type: none"> • Section 52 • Section 53 • All other sections applicable to different activities. 	<ul style="list-style-type: none"> • A person generating waste must ensure that the waste generated is kept and stored under conditions that cause no harm to human health or damage to the environment. • Waste must only be disposed of at a waste disposal site, including an incinerator approved by the local authority concerned.
Water Resources Management Act no 24 of 2013	<ul style="list-style-type: none"> • Section 89 • All other sections applicable to different activities. 	<ul style="list-style-type: none"> • The owner or occupier or other person in control of land where an incident that causes or is likely to cause a water resource to be polluted must take all reasonable measures to contain and minimize the effects of the incident; and to clean up polluted areas and remedy the effects of the incident.
Hazardous Substances Ordinance 14 of 1974	<ul style="list-style-type: none"> • Section 27 • All other sections applicable to different activities. 	<ul style="list-style-type: none"> • To provide for the control of substances which may cause injury or ill-health to or death of human beings, by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. • To provide for the division of such substances into groups in relation to the degree of danger. • To provide for the prohibition and control of importation, manufacture, sale, use, operation, application, modification, disposal or dumping

		<p>of such substances; and</p> <ul style="list-style-type: none"> • To provide for matters connected therewith.
Fertilizers, farm feeds, agricultural remedies and stock remedies Act no 36 of 1947	<ul style="list-style-type: none"> • Definitions • Section 7 • Section 10 • All other sections applicable to different activities. 	<ul style="list-style-type: none"> • Arborocides application is defined as an agricultural remedy under this Act • Only registered pesticides may be used. • May only buy herbicides in a container that complies with the prescribed requirements and is sealed and labelled. • Only allowed to use herbicides in the prescribed manner. • Landowners must be notified about applications, and the following information must be supplied: <ul style="list-style-type: none"> ○ Purpose of administration ○ Registered name and number of the product • Precautions to be taken before, during and after each administration.
The Nature Conservation Ordinance (1975) as amended through the Nature Conservation Amendment Act of 1996.	<ul style="list-style-type: none"> • Chapter 11: Game Parks, Nature Reserves, Conservancies and Wildlife Councils 	<ul style="list-style-type: none"> • Permits are required to enter the National Park. Permits are also required for the removal of any protected plant or tree. It also stipulates that no damage may be done to any object of geological, ethnological, archaeological, historical or other scientific interest without the appropriate permits.
National Heritage Act No 27 of 2004	<ul style="list-style-type: none"> • Section: 46, 48, 55 • All other sections applicable to different activities. 	<ul style="list-style-type: none"> • All heritage resources are to be identified and either protected or removed/mitigated with a permit from the National Monuments Council, before any development may take place • A chance find procedure should be followed in

		case of discovery of a heritage resource.
Soil Conservation Act no 76 of 1969	<ul style="list-style-type: none"> • Section 4 • Section 13 • Section 21 • And other applicable sections 	<ul style="list-style-type: none"> • Institutions may be ordered by the relevant Minister to construct soil conservation works when and where necessary. • Fire protection schemes may be implemented to regulate the prohibition of veld burning as well as the prevention, control and extinguishing of veld and forest fires. • It is illegal to damage, destroy / fail to maintain any soil conservation works; fire belts; works constructed in terms of a fire protection scheme.
Forest Act no 12 of 2001	<ul style="list-style-type: none"> • Section 132 • Section 41 • And other applicable sections 	<ul style="list-style-type: none"> • Vegetation may not be removed within 100 m of a river, stream or water course • A person shall be liable for damage caused by any fire which arises because of activities carried out on site without having taken reasonable measures to prevent a fire.

5 ROLES AND RESPONSIBILITIES

It is the responsibility of NamPower to ensure that all the environmental management actions are carried out effectively and timeously. It is important to note that the successful implementation of the EMP is, however, dependent on clearly defined roles and responsibilities by several stakeholders. Below are the key employees that are responsible for the management of environmental and social issues during the operational phase:

Table 2: The roles and responsibilities for operational activities:

Responsible person	Responsibilities
The Area Superintendent	<ul style="list-style-type: none"> • Is responsible for the enforcement of the EMP.

	<ul style="list-style-type: none"> • To ensure that environmental requirements are adequately covered in any external service provider contracts. • To ensure that SHE requirements are included in the tender documents sent to the contractors. A copy of this EMP should also form part of the tender documents. • To ensure that corrective actions are implemented for non-compliances. • To ensure that appropriate records and information regarding compliance with environmental requirements are maintained. • To ensure that the substation remain in compliance with the requirements of this EMP, through regular communication and monitoring. • To ensure that all incidents, accidents, and complaints are reported. To also ensure that incidents, accidents, and incidents are investigated to prevent re-occurrence.
Project Manager	<ul style="list-style-type: none"> • Is responsible for the enforcement of the EMP. • To ensure that SHE requirements are included in the tender documents sent to the contractors. • Must ensure that the contractor remains in compliance with the requirements of this EMP. • To ensure that all incidents, accidents, and complaints are reported. To also ensure that incidents, accidents, and incidents are investigated to prevent re-occurrence.
NamPower SHEW	<ul style="list-style-type: none"> • To ensure that all requirements with regards to this EMP are fulfilled. • Communicate NamPower SHEW requirement to the contractors and NamPower employees. • Provides SHEW inductions to NamPower and contractor

	<p>employees.</p> <ul style="list-style-type: none"> • Implement monitoring, conduct inspections and audits in consultation with the Project Manager/Area Superintendent. • Document and communicate monitoring, audit and inspection findings to project manager and area superintendent. • Communicate the final inspection report to the Project manager on contractor compliance to the EMP before the project close-off and final payment is made to the contractor.
Contractor	<ul style="list-style-type: none"> • Is responsible for the implementation of the EMP. • To appoint an environmental officer responsible for the implementation of this EMP. • To ensure that all tasks undertaken under the scope of work, are in accordance both with NamPower's SHEW policies and procedures as well as to the requirements of this EMP. • Ensure that employees are trained and awareness built relating to environmental and social management. • To ensure that all incidents, accidents, and complaints are reported to the project manager. The contractor to ensure that incidents, accidents, and complaints are investigated to prevent re-occurrence. • Ensuring that all employees receive a SHEW induction before the start of the project. • Ensuring that the work being done does not create a nuisance to any anyone working, residing, or living on adjacent properties or within the immediate surroundings of the site.

6 DESCRIPTION OF OPERATIONAL ACTIVITIES TO BE UNDERTAKEN

Table 3: Description of the activities related to the operational activities.

Activity	Description	Associated potential impacts
General functioning of the substation	<ul style="list-style-type: none"> Physical presence and functional characteristics of the substation and associated lines. 	<ul style="list-style-type: none"> Bird mortalities through electrocution. Visual impact. Community impacts in a form fatalities or injuries caused by electrocution.
Maintenance of the substation	<ul style="list-style-type: none"> The maintenance of the substation entails: General equipment repairs. Replacement of batteries servicing batteries. Maintenance of electrical equipment such as transformers, relays, and capacitors. Maintenance of electrical equipment such as transformers, relays, and capacitors. Construction or repairing 	<ul style="list-style-type: none"> Soil and water contamination Waste generation Loss of biodiversity Social issues related to the introduction of new workers in the area, e.g. HIV/AIDS spreading.

	of access roads.	
Construction	<ul style="list-style-type: none"> • Construction includes the following activities: • Construction of temporary or permanent buildings (digging and setting of foundations, digging of cable trenches). • Extension of boundary fences • Construction of additional feeder bays. • Upgrade of electrical equipment (either in size, capacity, or technology). • Connection of new lines to Substations. • Refurbishment of buildings. • Personnel conduct in surrounding communities. 	<ul style="list-style-type: none"> • Noise emissions • Dust emissions • Introduction of new people in the area leading to the spread of diseases such as HIV/AIDS • Soil and water contamination • Waste generation • Employment of casual workers • Loss of biodiversity • Loss of productive land
Periodic inspections, monitoring, maintenance of the Substation.	<ul style="list-style-type: none"> • Replacement, cleaning, and maintenance of substation components. 	<ul style="list-style-type: none"> • Soil and ground water contamination as a result of oil spills • Soil contamination as a result of improper waste handling and disposal. • Veld fires.

Hazardous Substances	<ul style="list-style-type: none"> Storage of hazardous material; 	<ul style="list-style-type: none"> Possible oil spills and soil contamination due to transformer blow out.
Installation of Optic Fiber networks	<ul style="list-style-type: none"> Design, Supply, Delivery, Installation and Commissioning of Optic Fibre networks for communication purposes with National Control. 	<ul style="list-style-type: none"> Soil contamination because of improper waste handling and disposal.
Vegetation management	<ul style="list-style-type: none"> Manually Mechanically Selective herbicide application Combination of two or three methods 	<ul style="list-style-type: none"> Loss of biodiversity Soil and groundwater contamination. Water pollution. Employment opportunities if vegetation management is outsourced.
General site inspection.	<ul style="list-style-type: none"> Inspection to be conducted by the technical and Safety, Health, Environment and Wellness Departments 	<ul style="list-style-type: none"> Littering

7 MANAGEMENT AND MITIGATION MEASURES

To ensure that the potential impacts are eliminated and/or minimised, it is necessary to ensure that the various activities related to the operation of these s are adequately managed and monitored. Table 4 below outlines mitigation measures as well as objectives to be achieved. A responsible person (s) have been assigned to each mitigation measure (s).

Table 4: Proposed mitigation measures for the general operational activities

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
Safety Health and Environmental (SHE) Awareness	<ul style="list-style-type: none"> • All employees should undergo SHE induction before work commences onsite. • All employees are to be made aware of their individual roles and responsibilities in achieving compliance with the EMP. • Environmental toolbox talks to be conducted and records to kept onsite. 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor
Safety Management	<ul style="list-style-type: none"> • Develop and implement an occupational health and safety plan that comprises key elements such as risk assessment and safe working procedure. • All work activities to be done under the supervision of a competent person. • Appropriate warning signs must be placed on the facilities. 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor
Fire Management	<ul style="list-style-type: none"> • Eliminating the presence of potential sources of ignition and providing appropriate equipment to minimize fire risk. • Fire extinguishers to be readily available onsite, especially when hot works are conducted. • Regular servicing of fire extinguishers. • Maintain servitude access road under the line leading to the substation 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	to function as fire break.	
Air Quality	<ul style="list-style-type: none"> • Dust generation from all activities must be minimised wherever possible. • Excavation, handling, and transportation of erodible materials shall be avoided under high wind conditions or when a visible dust plume is present. • Speed limit to be enforced to control dust emissions and minimize incidents onsite. • Dust suppression measures shall be implemented, if necessary, especially during projects. • Vehicle, machinery, and equipment shall be maintained in good working order in order to minimise emissions from exhaust fumes. 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor
Resources Efficiency	<ul style="list-style-type: none"> • Minimise water wastage and record water usage. • Avoid wasteful use of materials. • Source goods and services locally where possible 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor
Waste Management	<ul style="list-style-type: none"> • Minimise the generation of waste by applying the waste hierarchy. • Substation to be kept free of waste. 	<ul style="list-style-type: none"> • Area superintendent

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<ul style="list-style-type: none"> • No burning, burying, or dumping of any waste materials shall be permitted onsite. • Labelled waste bins with lids must be provided onsite for all waste streams where applicable and ensure that waste is disposed at nearest approved waste disposal site. • Ensure that waste segregation is done at source. • Hazardous waste shall be disposed of at a registered waste disposal site. • Safe disposal certificates for hazardous waste must be kept in the SHE files. • Concrete waste must not be dumped on site. • No burning of cleared vegetation shall be allowed on site. • Unutilised construction materials may not be left or randomly strewn around the site but should be removed once construction has ended and. • All waste management requirements as stipulated in the NamPower Waste Management procedure shall be complied with. 	<ul style="list-style-type: none"> • Project manager • Contractor
Batching plant	<ul style="list-style-type: none"> • Concrete mixing shall be conducted on an impermeable surface such 	<ul style="list-style-type: none"> • Project manager

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<p>as on boards or plastic sheeting or within a bunded area with an impermeable surface).</p> <ul style="list-style-type: none"> • Bagged cement must be stored in an appropriate facility and at least 10m away from water drains. • Hardened concrete from washout facility or concrete mixer must be either reused or disposed of at an appropriate licenced disposal facility. • Any access sand, stone and cement must be removed from site on completion of the construction phase. 	<ul style="list-style-type: none"> • Contractor
Wastewater management	<ul style="list-style-type: none"> • Water containing environmental pollutants shall be collected and removed from site. • No wastewater runoff or uncontrolled discharges from the site/working areas shall be permitted. • Mobile toilets or septic tanks should be used in remote areas. 	<ul style="list-style-type: none"> • Project manager • Contractor
Hazardous Substances	<ul style="list-style-type: none"> • Drip trays must be available to contain accidental spills. • Machinery must be properly maintained to keep oil leaks in check. • The use, handling, storage, and disposal of the hazardous chemical must be in accordance with the MSDS. • Containers must be clearly marked to indicate contents, quantities, and 	<ul style="list-style-type: none"> • Area superintendent • Project manager • Contractor

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<p>safety requirements.</p> <ul style="list-style-type: none"> • Hazardous substances storages areas must be bunded. A bund should be able to contain 110% of the volume of the largest container stored within it. • All transformers to be contained in bunded areas with a sump. Bund walls must be maintained and kept in good condition. • It is the responsibility of the Asset owner to ensure that these bund walls are maintained properly. • Diesel and other liquid fuel, oil and hydraulic fluid must be stored in appropriate storage tanks or in bowzers. • Report any accidental spills that occur onsite. • Spill kit and absorbents must be available onsite. • Hazardous substance storage areas must display safety signs. • All spills must be reported, cleaned, and remediated to in compliance with SHEW requirements. 	
Social Impact	<ul style="list-style-type: none"> • Contractor to sign land permission form and agreement with landowners 14 days prior to commencement of work on site. • Employees should limit their contact with farm workers and other 	<ul style="list-style-type: none"> • Area Superintendent • Project Manager

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<p>permanent residents of the area.</p> <ul style="list-style-type: none"> • Employees should be properly educated about the impact of HIV / AIDS and pregnancies. • The use of intoxicating liquor or drugs of any kind by the employees is prohibited. • The Substation is a restricted area, public should be allowed to enter without approval and/or without induction. • Ensure that all queries and complaints are documented and dealt with. • A register shall be kept of all complaints from landowners. • All claims shall be handled immediately to ensure timely rectification. 	<ul style="list-style-type: none"> • All NamPower employees • Contractor
Cultural and heritage resource	<ul style="list-style-type: none"> • Any chance finds must be reported to NamPower SHEW section. • In an event of discovery of human remains or other artefacts the work shall cease. A professional archaeologist is to be consulted and conduct investigation. 	<ul style="list-style-type: none"> • Area superintendent • Project Manager • SHEW • Contractor
Fauna and Flora	<ul style="list-style-type: none"> • The breeding sites of raptors and other wild birds' species near the substation should be avoided as far as possible. 	<ul style="list-style-type: none"> • Area superintendent

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<ul style="list-style-type: none"> • Ensure that the site is kept clean and free of rubbish that could potentially attract animals and pests. • Barricading of work area to keep animals and unauthorised persons from site. • Workers should be educated so as not to kill any fauna found onsite. • Poaching or capturing of any animal (wild or domestic) shall be prohibited. • Bird nests may not be disturbed. • No domestic animals may be kept onsite site as they can introduce diseases or interbreed with the animals occurring naturally in the area. • All wildlife and electrical infrastructure interactions must be reported to the SHEW section. 	<ul style="list-style-type: none"> • Project Manager • SHEW • Contractor
Herbicide Use	<ul style="list-style-type: none"> • Avoid spraying herbicide during windy days/periods. See the general product requirements for herbicide used. This could affect non-target areas and species. • Herbicide must only be applied inside the substation. • Herbicide application should be undertaken by trained applicators under 	<ul style="list-style-type: none"> • Area superintendent • Project Manager • SHEW • Contractor

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<p>the supervision of the pest control officer.</p> <ul style="list-style-type: none"> • The recommended herbicide for perennial weed and grass is any product with any active ingredients of Glyphosate. • Herbicide will be managed in accordance with NamPower Vegetation Procedures. 	
Water Resources	<ul style="list-style-type: none"> • Care must be taken to ensure that pollution of water does not occur. • Herbicides shall not exceed the recommended volume and concentration of application. • Naturally occurring water resources may not be used for any personal hygiene, mixing herbicides or for washing equipment used for herbicide application. • Water may only be taken from a private or government property based on an agreement between the NamPower, contractor and custodian of the water source. 	<ul style="list-style-type: none"> • Area superintendent • Project Manager • SHEW • Contractor
Campsite Establishment (If required)	<ul style="list-style-type: none"> • NamPower/ Contractor must sign land permission form and agreement with landowners prior to commencement of work onsite. • Adequate ablution facilities must be provided onsite in relation to the number of employees. 	<ul style="list-style-type: none"> • Area superintendent • Project Manager • SHEW

ASPECT	MANAGEMENT AND MITIGATION MEASURES/COMMITMENTS	RESPONSIBLE PERSON
	<ul style="list-style-type: none"> • Ablution facilities must not be located within 100m of any river, stream channel, pan, dam or borehole. • Non-employees are not allowed to reside at the campsite. • Fire extinguishers, first aid kits, assembly point, and emergency numbers must be available onsite. 	<ul style="list-style-type: none"> • Contractor
Site Rehabilitation	<ul style="list-style-type: none"> • A post construction audit within 1 week prior to the Contractor leaving site must be conducted. • Rehabilitate all features, infrastructure associated with the operational phase that is not in use. • All areas disturbed by any operational activities shall be subjected to rehabilitation. • All waste will be removed to a registered waste site and certificate of disposal provided. • All decommissioned equipment from the substation (e.g. faulty transformers, cracked or rotten poles and faulty cables, old re-closers and sectionalizers) shall not be left on site. • SHEW to sign site close off or take over certificate once remedial corrective actions have been implemented. 	<ul style="list-style-type: none"> • Area superintendent • Project Manager • SHEW • Contractor

8 REPORTING, MONITORING AND AUDITING

Environmental monitoring and audits must be conducted during the operational phase. The environmental monitoring and audits must be conducted in line with supporting procedures and requirements of this plan. Monitoring and audit reports detailing the monitoring and audit results shall be prepared by the SHEW section and communicated to the Area Manager, Superintendent and Project Manager. Records of monitoring and auditing report shall be kept and will be made available during inspection and audits.

9 NON-COMPLIANCE AND CONFLICT MANAGEMENT PROCEDURES

The Area Superintendent and/or project manager shall ensure that the employees and external service providers comply with the requirements outlined in this EMP. In the event of non-compliance, the following recommended process shall be followed:

- Non – compliances will be identified during inspections or audits carried out by the SHEW Section and reported to the Area manager, Superintendent and Project Manager for corrective actions.
- Area Superintendent / Project Manager shall notify the employees about the non-compliance.
- Corrective and preventative actions must be implemented on agreed timeframes.
- Follow – up inspections shall be conducted to assess whether the corrective and preventative actions were implemented effectively.

NamPower has the right to stop all contractor's activities if it is found that a gross violation of the EMP is taking place. The contractor shall notify NamPower of the following:

- Conflicts arising with any landowner / representative.
- Any special conditions requested by a landowner / representative.

10 RECORD KEEPING

Record keeping is important for the effective functioning and implementation of an EMP. EMP documentation must be kept in both the hard copy and electronic format for safe keeping. These must include:

- Copy of the Environmental Clearance Certificate
- A copy of an EMP
- EMP implementation activities
- Induction records
- Resource use records i.e. water and fuel consumption
- Audit and Inspection reports.

In case vegetation management is conducted and is done using herbicides, the following records should be kept:

- Date of application
- Herbicide applied
- Persons responsible for application
- Supervisor
- Type of herbicide used
- Method of application
- Timing of application
- Equipment used
- Concentration of herbicide used

11 CONCLUSION

All management measures and legal requirements outlined in this EMP should be implemented to ensure environmental compliance by all parties undertaking the operational activities. This will ensure that potential negative impacts are identified, avoided or mitigated.

12 ANNEXURES

Annexure 1: Landowner permission form

Landowner Permission Form



Landowner name: _____ Contact number: _____

Representative name:

Farm name: _____

Contractor:

Representative name:

Contact number:

General Notice

This form is to be used prior to a contractor entering a landowner's property to commence any work related to the construction or maintenance of power-line structures and servitudes.

The form must be completed by either the landowner or his / her legal representative on the property.

Section A: Before activities commence

Activities to be undertaken on the property (completed by the contractor):

Use of Water Resources

Erection

Refurbishment

Trimming of vegetation

Use of other

infrastructure (please

specify)

Bush clearing

Herbicide application

Access Road usage

Rehabilitation

Specific conditions to be MEFT on the property (as stipulated by the landowner):

Dates when access is needed:

From: _____

To: _____

Signatures (prior to entry)

Landowner/Representative

Contractor representative

Date

Date

Section B: Upon completion of work and prior to leaving the property

Remarks on compliance or misconduct (upon completion of activities):

Annexure 5: Landowner permission form



Landowner Permission Form



Landowner name:	Contact number:
<hr/>	
Representative name:	
<hr/>	
Farm name:	
<hr/>	
Contractor:	
<hr/>	
Representative name:	Contact number:
<hr/>	

General Notice

This form is to be used prior to a contractor entering a landowner's property to commence any work related to the construction or maintenance of power-line structures and servitudes.

The form must be completed by either the landowner or his / her legal representative on the property.

Section A: Before activities commence

Activities to be undertaken on the property (completed by the contractor):

Use of water resources
Powerline erection Powerline
refurbishment Trimming of
vegetation Use of other
infrastructure(please specify)

Camping Bush
clearing
Herbicide application
Access Road usage
Rehabilitation

Specific conditions to be met on the property (as stipulated by the landowner):

Dates when access is needed:

From: _____

To: _____

Signatures (prior to entry)

Landowner/Representative

Contractor representative

Date

Date

Section B: Upon completion of work and prior to leaving the property

Remarks on compliance or misconduct (upon completion of activities):

Issues still need to be resolved upon completion of activities:

Signatures (upon completion)

Landowner/Representative

Contractor representative

Date

Date

Annexure 6: pre-application consent form for herbicide/pesticide application

PRE-APPLICATION CONSENT FORM	
Name of Landowner / Representative:	
Contact Details:	
Name of Farm:	
Name of Contractor:	
Name and Details of Contact Person:	
Herbicide/pesticide to be used:	
Period of Application:	
NamPower District Supervisor:	
Contact Details:	
NamPower Installation to be Treated:	
<u>Comments from Landowner/Representative:</u>	
<u>Signed:</u>	
Landowner/ Representative:	NamPower Representative:
Date:	Date:

Annexure 7: Post application review form for herbicide/pesticide applications

POST-APPLICATION REVIEW FORM	
Name of Landowner / Representative:	
Contact Details:	
Name of Farm:	
Name of Contractor:	
Name and Details of Contact Person:	
Herbicide/pesticide to be used:	
Period of Application:	
NamPower District Supervisor:	
Contact Details:	
NamPower Installation to be Treated:	
<u>Outstanding Issues:</u>	
<u>Signed:</u>	
Landowner/ Representative:	NamPower Representative:
Date:	Date:

