
KAOKO GREEN ENERGY SOLUTIONS (PTY) LTD

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN REPORT

The Subdivision of Wlotzkasbaken Townlands No. 221 into 5 Portions (20 Ha) and the Remainder and Subsequent Rezoning of 5 Portions from “Undeveloped” to Industrial” and Right of Way Servitude

Wlotzkasbaken Settlement, Erongo Region, Namibia

February 2024

Prepared by:



Prepared for:



CONSULTANT’S EXPERTISE

I.N.K Enviro Consultants cc is the independent firm of environmental consultants that has been appointed by Kaoko Green Energy Solutions (Pty) Ltd to conduct the EIA process.

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DECLARATION OF INDEPENDENCE AND DISCLAIMER

The environmental consultant herewith declare that this report represents an independent assessment of the proposed rezoning activities, on the request of Kaoko Green Energy Solutions (Pty) Ltd.

I.N.K Enviro Consultants cc has prepared this report based on an agreed scope of work and acts in all professional manner as an independent environmental consultant to Kaoko Green Energy Solutions (Pty) Ltd and exercises all reasonable skill and care in the provision of its environmental professional services in a manner consistent with the level of expertise exercised by members of the environmental profession.

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1 INTRODUCTION

1.1 Introduction to the Proposed Project

Kaoko Green Energy Solutions (Pty) Ltd (hereinafter referred to as “Kaoko”) intends to apply for an Environmental Clearance Certificate (ECC) for the Subdivision of Wlotzkasbaken Townlands No. 221 into 5 Portions (20 Ha) and the Remainder and Subsequent Rezoning of 5 Portions from “Undeveloped” to Industrial” and Right of Way Servitude with the aim of developing the associated activities relating to the proposed WaveRoller Pilot Project. The proposed project is located on a piece of land earmarked for industrial development, within the Wlotzkasbaken town boundary in Erongo Region, Namibia.

This EIA process is conducted on the request of the Ministry of Urban and Rural Development (MURD), as one of the requirements, prior to the decision-making of the subdivision plans for the proposed WaveRoller Pilot Project.

I.N.K Enviro Consultants cc (hereinafter referred to as I.N.K), an independent firm of environmental consultants, has been appointed to undertake the Environmental and Social Impact Assessment process for this project. For more details on the ESIA process that was followed, please refer to Section 1.4.

EMP - The Subdivision of Wlotzkasbaken Townlands No. 221 into 5 Portions (20 Ha) and the Remainder and Subsequent Rezoning of 5 Portions from “Undeveloped” to Industrial” and Right of Way Servitude

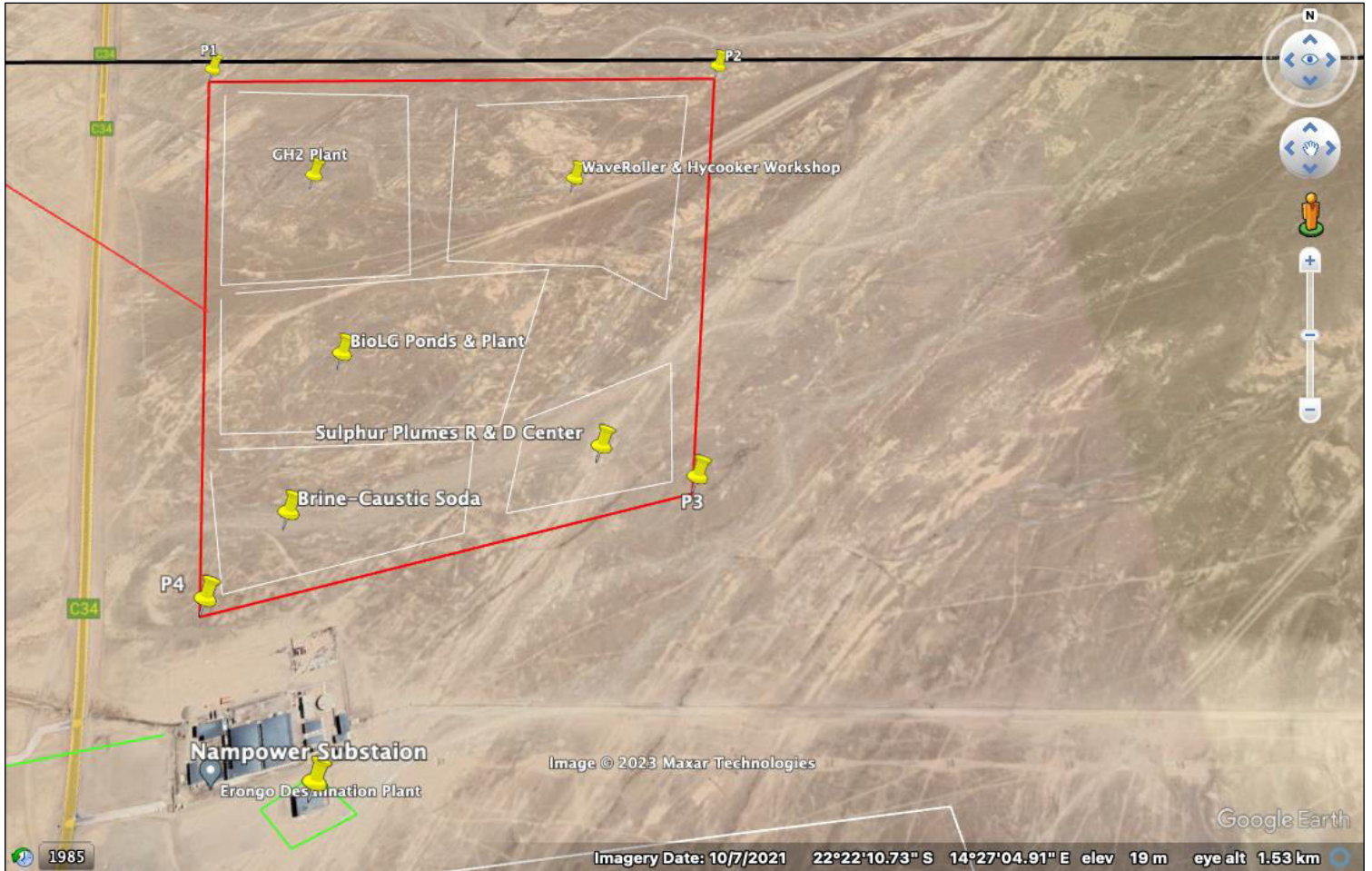


Figure 1: Locality Map

1.2 Environmental Management Plan (EMP)

This EMP report serves as a managing tool for the road maintenance and rehabilitation activities in Tsumeb. The report details actions to ensure compliance with regulatory bodies and that environmental performance is verified through information on impacts as they occur.

The EMP will be implemented during the implementation phase with the intention of implementing the recommended mitigation measures.

The document further serves as a guiding tool for the proponent, contractors and workforce on their roles and responsibilities concerning environmental management on site and provides an environmental monitoring framework for all project phases of the proposed activities. This environmental management plan aims to take a proactive route by addressing potential problems before they occur.

EMP - The Subdivision of Wlotzkasbaken Townlands No. 221 into 5 Portions (20 Ha) and the Remainder and Subsequent Rezoning of 5 Portions from “Undeveloped” to Industrial” and Right of Way Servitude

EMP implementation is a cyclical process that converts mitigation measures into actions and through cyclical monitoring, auditing, review and corrective action, ensures conformance with stated EMP aims and objectives. Through monitoring and auditing feedback for continual improvement in environmental performance must be provided and corrective action taken to ensure that the EMP remains effective.

2 IDENTIFICATION OF APPLICABLE ENVIRONMENTAL AND SOCIAL GUIDELINES

2.1 Introduction

The Republic of Namibia has five tiers of law and several policies relevant to environmental assessment and protection, which includes:

- ◆ The Constitution
- ◆ Statutory law
- ◆ Common law
- ◆ Customary law
- ◆ International law

Key policies currently in force include:

- ◆ The EIA Policy (1995).
- ◆ Namibia’s Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1994).

As the main source of legislation, the Constitution of the Republic of Namibia (1990) makes provision for the creation and enforcement of applicable legislation. In this context and in accordance with its constitution, Namibia has passed numerous laws intended to protect the natural environment and mitigate against adverse environmental impacts.

2.2 Legislation Applicable to the Proposed Project

2.2.1 The Constitution of the Republic of Namibia as Amended

Article 91 (c) provides for duty to guard against “the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia.” Article 95(l) deals with the “maintenance of ecosystems, essential ecological processes and biological diversity” and sustainable use of the country’s natural resources.

2.2.2 Environmental Management Act No. 7 of 2007 (EMA) and EIA Regulations GN 28, 29, and 30 of EMA (2012)

GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.

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2.2.3 Local Authorities Act No. 23 of 1992

The Local Authorities Act prescribes the way a town or municipality should be managed by the Town or Municipal Council.

2.2.4 Urban and Regional Planning Act no. 5 of 2018

This Act consolidate the laws relating to urban and regional planning; to provide for a legal framework for spatial planning in Namibia; to provide for principles and standards of spatial planning.

2.2.5 The Integrated Coastal Management Bill

Once enacted, the Integrated Coastal Management Bill (2014) aims to establish a system of integrated coastal management in Namibia in order to promote the conservation of the coastal environment, maintaining the natural attributes of the coastal landscapes and seascapes, and ensuring the sustainable development and use of the natural resources within the coastal zone that is also socially, economically and ecologically justifiable.

2.2.6 Coastal Strategic Environmental Assessments

Two Namibian coastal Strategic Environmental Assessments (SEAs) were undertaken between 2006 and 2008, i.e. one for the northern regions of Kunene and Erongo and another for the southern regions of Karas and Hardap. These draw on international experience and were undertaken at a time of mounting production sector pressures within Namibia. Being an initiative of the Namibian Government through MEFT, the two SEAs seek to inform political and technical decision makers at local, regional and national levels.

The 2008 “SEA for the coastal areas of the Erongo and Kunene Regions” compiled by the Namibian Coast Conservation & Management Project (NACOMA) is aimed at ensuring informed decisions on issues related to biodiversity conservation, land use planning and socio-economic development planning in the Kunene and Erongo coastal regions.

2.3 Relevant Namibian Policies

Namibia’s policies provide the framework to the applicable legislation. Whilst policies do not often carry the same legal recognition as official statutes, policies are used in providing support to legal interpretation or guidance for civil servants and other stakeholders in the implementation of government objectives.

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2.3.1 The Namibia Vision 2030

The principles that underpin Vision 2030, a policy framework for Namibia’s long-term national development, comprise the following:

- ♦ Good governance.
- ♦ Partnership.
- ♦ Capacity enhancement.
- ♦ Comparative advantage.
- ♦ Sustainable development.
- ♦ Economic growth.
- ♦ National sovereignty and human integrity.
- ♦ Environment.
- ♦ Peace and security.

Vision 2030 states that natural environments are disappearing quickly. Consequently, the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets. Vision 2030 emphasises the importance of promoting healthy living which includes that the majority of Namibians are provided with safe drinking water. The importance of developing wealth, livelihood, and the economy is also emphasized by Vision 2030. This includes infrastructure provision like transport, communication, water, and electricity.

2.3.2 The Harambee Prosperity Plan II

The Harambee Prosperity Plan II (HPPII) (covering the period 2021 - 2025) builds on the solid foundation of the inaugural HPP 2016 - 2020. It continues to prioritize the implementation of targeted policy programme in order to enhance service delivery, contribute to economic recovery and engender inclusive growth. HPPII aims to increase local electricity generation capacity from 624 MW (2020) to 879 MW by 2025.

2.4 Relevant International Standards

2.4.1 The EIB’s Statement of Environmental and Social Principles and Standards (EIB, 2009)

The European Investment Bank (EIB) adopted an Environmental Statement in 1996 to underline its commitment to protecting and improving the natural and built environment according to EU

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policy (EIB, 2009). The statement focuses on, a) the principles on which the EIB approach to environmental and social issues are based and b) the environmental and social performance standards that ensure compliance with Bank requirements. The principles and standards are derived from EU policy and law and supplemented by other examples of international good practice. The EIB requires that all the projects it is financing are acceptable in environmental and social terms by applying appropriate safeguards to all its operations.

2.4.2 The EIB’s Environmental and Social Handbook (EIB, 2013)

The EIB Environmental and Social Handbook provides an operational translation of the policies and principles contained in the 2009 EIB Statement of Environmental and Social Principles and Standards (see above). Principles include the Environmental and Social Impact Assessment process of identifying predicting, evaluating a project’s positive and negative environmental and social impact on the biophysical and human environment as well as identifying ways of avoiding, minimizing, mitigating and compensating, including offsetting in the case of the environment and remedying in the case of social impacts, by applying the mitigation hierarchy. This process includes consultation with direct and indirect stakeholders and the elaboration of an environmental and social management plan detailing the implementation of the mitigation measures.

2.4.3 World Bank Environmental and Social Framework

The World Bank’s Environmental and Social Framework (ESF) enables the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. The ESF offers broad and systematic coverage of environmental and social risks. It makes important advances in areas such as transparency, non-discrimination, public participation, and accountability - including expanded roles for grievance mechanisms. It brings the World Bank’s environmental and social protections into closer harmony with those of other development institutions.

The ESF consists of:

- ◆ The World Bank’s Vision for Sustainable Development.
- ◆ The World Bank’s Environmental and Social Policy for Investment Project Financing (IPF) which sets out the requirements that apply to the Bank.
- ◆ The 10 Environmental and Social Standards (ESS), which set out the requirements that apply to Borrowers.
- ◆ Bank Directive: Environmental and Social Directive for Investment Project Financing

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- ◆ Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups.

2.4.4 World Bank’s Pollution Prevention and Abatement Handbook (PPAH)

The Pollution Prevention and Abatement Handbook (PPAH) promotes the concepts of sustainable development by focusing attention on the benefits, both environmental and economic, of pollution prevention, including cleaner production and good management techniques. In many cases, the guidelines provide numerical targets for reducing pollution, as well as maximum emissions levels that are normally achievable through a combination of cleaner production and end-of-pipe treatment. The guidelines are designed to protect human health, reduce mass loading to the environment, draw on commercially proven technologies, be cost effective, follow current regulatory trends and promote good industrial practices, which offer greater productivity and increased energy efficiency.

2.4.5 Applicable International Finance Corporation (IFC) Performance Standards

IFC’s Environmental and Social Performance Standards define IFC clients' responsibilities for managing their environmental and social risks. The Performance Standards provide guidance on how to identify sustainability risks and impacts and are designed to help avoid, mitigate, and manage them as a way of doing business in a more sustainable way.

The following are the performance standards that are applicable to the construction and operation of the project and are used as the basis of investigation for the ESMP:

Table 1: Applicable Performance Standards

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IFC Performance Standard	Description	Applicable	Not Applicable
1. Environmental and Social Management System	An environmental and social management system (ESMS) helps companies integrate plans and standards into their core operations—so they can anticipate environmental and social risks posed by their business activities and avoid, minimize, and compensate for such impacts as necessary. A good management system provides for consultation with stakeholders and a means for complaints from workers and local communities to be addressed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Labour and Working Conditions	It asks that companies treat their workers fairly, provide safe and healthy working conditions, avoid the use of child or forced labor, and identify risks in their primary supply chain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Pollution Prevention and Control	It guides companies to integrate practices and technologies that promote energy efficiency, use resources—including energy and water—sustainably, and reduce greenhouse gas emissions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Occupational Health and Safety, Public Health and Security	It helps companies adopt responsible practices to reduce such risks including through emergency preparedness and response, security force management, and design safety measures.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Land Acquisition and Involuntary Resettlement	It advises companies to avoid involuntary resettlement wherever possible and to minimize its impact on those displaced through mitigation measures such as fair compensation and improvements to and living conditions. Active community engagement throughout the process is essential.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Biodiversity and Ecosystems	It recognizes that protecting and conserving biodiversity, maintaining ecosystem services, and managing living natural resources adequately are fundamental to sustainable development.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Rights and Interests of Indigenous People	It seeks to ensure that business activities minimize negative impacts, foster respect for human rights, dignity and culture of indigenous populations, and promote development benefits in culturally appropriate ways. Informed consultation and participation with IPs throughout the project process is a core requirement and may include Free, Prior and Informed Consent under certain circumstances.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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8. Cultural Heritage	Cultural heritage encompasses properties and sites of archaeological, historical, cultural, artistic, and religious significance. It also refers to unique environmental features and cultural knowledge, as well as intangible forms of culture embodying traditional lifestyles that should be preserved for current and future generations. PS8 aims to guide companies in protecting cultural heritage from adverse impacts of project activities and supporting its preservation. It also promotes the equitable sharing of benefits from the use of cultural heritage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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2.4.6 Applicable Listed Activities

The EIA Regulations promulgated in terms of the Environmental Management Act, identify certain activities which could have a substantially detrimental effect on the environment. These listed activities require environmental clearance from MEFT prior to commencing. The following listed activities (Table 2) identified in the regulations apply to the proposed project:

Table 2: Listed activities triggered by the proposed Project.

Listed activity
5. Land Use and Development Activities
5.1 The rezoning of land from - (d) zoned open space to any other land-use;

2.4.7 Details of the Persons who compiled this report

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Kaoko Green Contractors to undertake the environmental impact assessment and related processes.

Immanuel N. Katali, the EIA project manager and lead practitioner holds a B.Arts (Honours) Degree in Geography, Environmental Studies and Sociology and has over seven years of relevant experience in conducting/managing EIAs, compiling EMPs and Socio-Economic Studies. Immanuel is certified as an Environmental Practitioner under the Environmental Assessment Professionals Association of Namibia (EAPAN).

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3 ENVIRONMENTAL ACTION PLANS

The management measures proposed to mitigate the potential impacts are detailed in the action plans below.

3.1 Action plans to achieve objectives and goals

Action plans to achieve relevant objectives/goals are listed in tabular format together with timeframes for each action. The action plans include the timeframes and frequency for implementing the mitigation measures as well as identifying the responsible party.

TABLE 3-1: ACTION PLAN – HYDROCARBON AND ASSOCIATED SPILLS MANAGEMENT

Objective:

The objective of the mitigation measures is to handle and store hydrocarbons in such a way as to prevent spills. Where spills do occur, to ensure the spill is contained and the contamination cleaned-up and contaminated material disposed of responsibly.

Activities / facilities	Management and mitigation measures	Action plan	
		Frequency / target date	Responsible parties
Storage of hydrocarbons (i.e. diesel)	<ul style="list-style-type: none"> Regular environmental awareness should include potential risks associated with hydrocarbons. 	Throughout the construction activity	Construction contractor/supervisor
Vehicles, machinery, and equipment	<ul style="list-style-type: none"> Vehicles, machinery and equipment shall be kept in good working condition to ensure they do not leak oil/diesel. Vehicles and machinery will be serviced off site as far as possible. However, in the event where machinery needs to be repaired/serviced on site all care shall be taken to prevent spillage of oil/diesel by performing the work on impermeable surfaces or proper placement of drip trays. All used parts from vehicles and machinery (which may include, but not limited to, oil filter, pipes, rags, cans) will be collected and removed from site and disposed of in an appropriate manner. Pollution will be prevented through basic infrastructure design and through maintenance of equipment in the nearest towns and not in the proposed sites. 	Throughout the construction activity	Construction contractor/supervisor
General (spills)	<ul style="list-style-type: none"> Any spills will be contained and cleaned up immediately Spill kits will be readily available on site. Employees and/or contractors will be shown how to use the spill kits to enable containment and remediation of pollution incidents. The contractor will establish environmental awareness to employees Soil contaminated with hydrocarbons shall be excavated and stored in plastic bags inside a designated wheelie bin and transported for disposal at the nearest disposal facilities in the towns. 	Throughout the construction activity	Construction contractor/supervisor

TABLE 3-2: ACTION PLAN – WASTE MANAGEMENT

Objective:

The objective of the management measures is to ensure proper storage, removal, transportation and disposal/recycling of hazardous and non-hazardous (i.e. domestic) waste.

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Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
General	<ul style="list-style-type: none"> Waste shall be separated and recycled / re-used where possible. 	Throughout the construction activity	Construction contractor/supervisor
	<ul style="list-style-type: none"> No burning or burying of waste material will be allowed on the construction site. 	Throughout the construction activity	Construction contractor/supervisor
	<ul style="list-style-type: none"> Contractors will be shown the importance of correct waste disposal as well as waste minimisation and recycling. 	Throughout the construction activity	Construction contractor/supervisor
Collection and storage of waste	<ul style="list-style-type: none"> Suitable receptacles with lids for waste disposal will be required at all sites. Ensure animals do not have access to waste bins. All food scraps need to be removed from site on a daily basis. If rubbish containers are used, ensure these can be sealed from wild animals or strong wind and for during transport. 	Throughout the construction activity	Construction contractor/supervisor
Disposal of non-hazardous (domestic) waste	<ul style="list-style-type: none"> Waste shall be transported a weekly basis from the site to the nearest disposal facility. No disposal of waste on site and no burning of waste. 	Throughout the construction activity	Construction contractor/supervisor
Recyclables	<ul style="list-style-type: none"> Recyclable material shall be taken to an identified recycling company. 	Throughout the construction activity	Construction contractor/supervisor
Medical waste from First Aid Kit	<ul style="list-style-type: none"> Medical waste where appropriate shall be disposed of at the medical waste facility. 	Throughout the construction activity	Construction contractor/supervisor

TABLE 3-3: ACTION PLAN – BIODIVERSITY & LAND USE

Objective:

The objective of the mitigation measures is to limit the destruction and general disturbance of biodiversity.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Vehicles and machinery	<ul style="list-style-type: none"> Vehicles will follow designated access routes. 	Throughout the construction activity	Construction contractor/supervisor
Site preparation for construction of infrastructure	<ul style="list-style-type: none"> Any additional excavations made in the area should be backfilled. 	Throughout the construction activity	Construction contractor/supervisor

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Table 3-4: ACTION PLAN – WATER QUALITY

Objective:

The objective of the mitigation measures is to prevent negative impacts associated with water quality

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Mobile Ablution facilities	<ul style="list-style-type: none"> Contractor must provide toilet facilities for the employees at the construction site. Contractor should ensure that toilets are working properly and are clean, so they do not pollute the surrounding environment or create hygiene problems. Personnel may not relieve themselves in the surrounding bush Mobile ablution facilities should be placed in such a way they do not get blown by windy conditions in the area. 	Throughout the construction activity	Construction contractor/supervisor
Contamination of groundwater / surface water	<ul style="list-style-type: none"> Refer to “Hydrocarbon and associated spills Management Action plan”. Areas where hydrocarbons will be utilized, the surface should be covered with a plastic impermeable plastic liner to prevent the spillage on the soils and eventual infiltration into the ground. Project machines and equipment should be equipped with drip trays to contain possible oil spills when operated during construction works. All hydrocarbon substances and other potential pollutants associated with the project activities should be contained in designated containers on site and later disposed of at nearby approved waste sites in accordance with the discharge standards. This is to ensure that these hazardous substances do not infiltrate into the ground and affect the groundwater quality. In cases of accidental fuel or oil spills on the soils from site vehicles, machinery and equipment, the polluted soil should be removed immediately and put in a designate waste type container for later disposal as per the preceding bullet point. The removed polluted soil should either be completely disposed of or cleaned and returned to where it was taken from on site or can be replaced with a cleaner soil. This is to ensure that the pollutants contained in the soil does not infiltrate into the site soils and eventually reach to groundwater. Spill control preventive measures should be in place on site to management soil contamination, thus preventing and or minimizing the contamination from reaching groundwater bodies. The impact would be more on groundwater (aquifers) since the construction works will be done in the dry months, thus there would be no rain to trigger (polluted) runoff to surface water bodies. 	Throughout the construction activity	Construction contractor/supervisor

Table 3-5: ACTION PLAN –ARCHAEOLOGY SITES / HUMAN REMAINS

Objective:

The objective of the mitigation measures is to prevent negative impacts associated with archaeology.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Chance archaeological find of any (i.e. human burials, fossils, chipped stone age tools, pre-modern artefacts (bone, wood, metal, glass and/or ceramic), etc.)	Preserve the site by demarcating the site with flagging / danger tape and cease any work in the vicinity of the site.	In the event of a chance find	Construction contractor/supervisor
	Notify the Project Manager.		
	Inform the National Heritage Council (NHC) of the find and take further instructions. Actions recommended by the appropriate Authorities may include an archaeological assessment, site preservation, removal of fossils or artefacts.		

Table 3-6: ACTION PLAN – SOCIAL ISSUES & TRAINING

Objective:

The objective of the mitigation measures is to prevent negative social impacts associated the contractor’s workforce on site.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Employees (contractors) – social issues	<ul style="list-style-type: none"> Have zero tolerance to alcohol in the workplace. A First Aid Kit should be available at all times during the construction process. 	Throughout the construction activity	Construction contractor/supervisor
Training & Awareness	Rules should be communicated to employees/ contractors before any construction.	<p>Prior to any activities taking place</p> <p>Throughout the construction activity</p>	Construction contractor/supervisor

Table 3-7: ACTION PLAN – NOISE AND AIR QUALITY

Objective:

The objective of the mitigation measures is to prevent negative noise and air quality impacts associated the contractor’s workforce on site.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Noise and Air Quality Impacts	<ul style="list-style-type: none"> ◆ Do not allow commercial activities that generate excessive noise levels. ◆ Continuous monitoring of noise levels should be conducted to make sure the noise levels does not exceed acceptable limits. ◆ No activity having a potential noise impact should be allowed after 18:00 hours if possible. 	Throughout the construction activity	Construction contractor/supervisor

Table 3-8: ACTION PLAN – REHABILITATION

Objective:

The objective of the measures is to rehabilitate the construction sites to as close an approximation of the pristine state as is technically, financially and reasonably possible.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Rehabilitation	<ul style="list-style-type: none"> • All construction sites should be photographed (1) before commencement, (2) after completion and (3) after rehabilitation of the activities. <p>At completion of the construction activity, the following rehabilitation works is recommended:</p> <ul style="list-style-type: none"> • All unused equipment and material will be removed from all sites; • All litter from the construction sites will be taken to an appropriate disposal site. • All debris, scrap metal, etc. will be removed. • All small ditches/ trenches will be covered and contoured. • Impacted footprints outside are to be raked and/or ploughed to encourage re-vegetation. • Inspect to ensure rehabilitation measures are implemented 	<p>Before, during and after activities</p> <p>After construction activities at each of the sites.</p>	Construction contractor/supervisor

1. PARTIES RESPONSIBLE FOR THE IMPLEMENTATION OF THE EMP

This section describes the roles and responsibilities for implementing the different parts of the environmental management plan (EMP).

3.2 Site Manager/ Supervisor

The Site Manager has overall responsibility for environmental management and safety during the construction process and shall oversee the implementation of the EMP.

The Site Manager’s responsibilities relating to compliance with this EMP:

- Regular inspections and auditing of compliance to this EMP and any other relevant legal requirements.
- Regular correspondence on environmental issues and incidents.
- Conduct environmental awareness training during induction training and on an ad hoc basis thereafter to all workers.
- Ensure compliance to this EMP
- Ensure that staff is controlled through the implementation of appropriate security measures.
- Carefully manage the handling of hydrocarbons and other hazardous materials.
- Monitor for excessive dust, noise and biodiversity losses and implement control measures if necessary.
- Report incidences
- Implement a waste management strategy.
- Monitoring and maintenance of equipment and machinery.
- Ensure the provision of adequate sanitation facilities.
- Implement an environmental awareness plan.
- Implementation of first-aid procedures.
- Control of traffic safety and access route conditions.

3.3 ENVIRONMENTAL REPRESENTATIVE

The Site Manager might nominate an Environmental Representative to assist with overseeing each of the sites and implementing of the relevant EMP commitments.

2. TRAINING AND AWARENESS

The purpose of the job specific environmental awareness training is to ensure that employees/all staff are equipped to implement the actions committed to in the EMP. The staff involved in operations will receive training regarding the requirements of this EMP.

Two main forms of training will be provided on site:

- Site induction
- Environmental management training – general and targeted

The training will generally be prepared by the Site Manager / Supervisor (or the Environmental Representative).

The following will be done to ensure all employees, contractors, suppliers and visitors receive the appropriate training/awareness:

3.4 Environmental Site Induction

All new members of staff receive a corporate Environmental Induction along with the obligatory Health & Safety induction. The induction gives a general overview of the environmental challenges faced by the project, how we are managing them, and general tips for reducing our impact in the workplace.

The main reason for environmental induction is to encourage new staff to be environmentally aware right from the beginning of their employment. This will ensure that environmental initiatives are successful by eliminating bad habits from the start.

Before working on all sites, all personnel and sub-contractors will undertake a site induction incorporating environmental requirements. The induction will address a range of environmental awareness issues specific to the construction process of the project.

As a minimum, training shall include:

- Explanation on the importance of complying with the EMP and environmental implications should the EMP not be effectively implemented.
- Explanation of the rules.
- Discussion of the potential environmental impacts of activities, recognition of environmental risks and how to control these risks.
- The benefits of improved personal performance, understanding of what to do in case of an environmental event or exposure.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when carrying out operational activities.
- Explanation of the requirements of the EMP and its specification.
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.

3.5 Environmental Awareness training

Targeted environmental management training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. This environmental training will aim to achieve a level of awareness and competence appropriate to their assigned activities. This training will take place at the beginning of construction activity and a refresher towards the end of the construction project.