

**ENVIRONMENTAL ASSESSMENT  
FOR  
UPGRADING AND RENOVATIONS FOR THE  
FLEET MANAGEMENT FUEL STATION FOR CITY  
OF WINDHOEK, KHOMAS REGION, NAMIBIA**

**OPERATIONAL  
ENVIRONMENTAL & SOCIAL MANAGEMENT  
PLAN (ESMP)**

**JANUARY 2024**



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## PROJECT DETAILS

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**TITLE:** Environmental Assessment for the Upgrading and Renovations for the Fleet Management Fuel Station for City of Windhoek, Khomas Region, Namibia

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## ABBREVIATIONS

<b>COA</b>	Conditions of Authorisation
<b>CoW</b>	City of Windhoek
<b>DWAF</b>	Department of Water Affairs and Forestry
<b>EAP</b>	Environmental Assessment Practitioner
<b>EC</b>	Environmental Clearance
<b>ECC</b>	Environmental Clearance Certificate
<b>ECO</b>	Environmental Control Officer
<b>EIA</b>	Environmental Impact Assessment
<b>EMA</b>	Environmental Management Act (No. 7 of 2007)
<b>EMP</b>	Environmental Management Programme
<b>EO</b>	Environmental Officer
<b>HSSE</b>	Health & Safety Site Environmental
<b>GIS</b>	Geographic Information System
<b>I&amp;APs</b>	Interested and Affected Parties
<b>IFC</b>	International Finance Corporation
<b>MEFT: DEA</b>	Ministry of Environment, Forestry & Tourism: Department of Environmental Affairs
<b>MME</b>	Ministry of Mines and Energy
<b>NEC</b>	Namibia Environmental Consultants
<b>OESMP</b>	Operational Environmental & Social Management Plan
<b>SANS</b>	South African National Standards

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# 1 INTRODUCTION

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## ***1.1 PURPOSE OF THIS ESMP***

This Environmental and Social Management Plan (ESMP) addresses the management of environmental impacts related to the operations of the existing Fuel Station for the Fleet Management for the City of Windhoek (CoW) in Windhoek. The document should be used as a basis for managing, mitigating and monitoring the environmental impacts associated with the operational phases of the environmental study, conducted by Namibia Environmental Consultants (NEC).

This ESMP is intended for the management of the impacts for the fuel station and operation thereof. This ESMP is therefore a standalone document which must be kept and used on site during the operational phase of the fuel station.

The Operational Environmental and Social Management Plan (OESMP) contains the necessary mitigation and recommended actions as well as the timeframe and person responsible for the actions. The ultimate responsibility of the implementation of the OESMP rests on the management of Om'kumoh Consulting Engineers and the City of Windhoek. The OESMP is a legal binding document that is an important part of the Environmental Assessment process and needs to be strictly adhered to. Workers must be made aware of the OESMP, their responsibilities and sensitive / no-go areas. Any transgressions must be treated as serious with remedial action to be taken. Any parties responsible for transgression of the underlying management measures outlined in this document will be held responsible of non-compliances and will be dealt with accordingly. This document should be flexible to allow Om'kumoh Consulting Engineers and the City of Windhoek (CoW) to conform to the management commitments without being prescriptive. The management commitments prove that the anticipated risks on the environment will be minimised if they are adhered to consistently.

This Operational Environmental and Social Management Plan has been compiled for the management of operational phase of the existing fuel station in Windhoek. The OESMP will provide specific recommendations and mitigation measures on how to minimise negative impacts and therefore protecting the environment on a social as well as biophysical level.

## ***1.2 OBJECTIVES AND PURPOSE OF THE ESMP***

The primary objectives of the ESMP are as follows:

- To describe action plans for achieving the mitigation measures described in the EIA.
- To indicate responsibilities, schedules and staff resources regarding the implementation of these action plans.
- To highlight a monitoring programme, that will enable review of the success of the ESMP and the provision of such information to the relevant decision-makers.
- To provide specific recommendations and mitigation measures on how to minimise negative impacts and therefore protecting the environment mostly on the biophysical as well as social level.
- In general, the purpose of this ESMP is to formulate mitigatory measures that should be implemented and made binding to all contractors during the operational phase.

- To outline mitigation measures and environmental specifications which must be implemented to ensure environmental and social protection of the surrounding environment and to prevent long-term or permanent environmental degradation.

### 1.3 COMPONENTS OF THE OEMP

Environmental issues identified in this OESMP are specific to the operational phase fuel station. The OESMP has been prepared in an issues-based format that nominates for each environmental issue or impacting activity, the tasks that are required to be addressed during the operational phases of the fuel station, covering:

- Environmental issues
- Environmental objectives
- Environmental intent
- Control measures
- Responsibility
- Monitoring
- Reporting
- Corrective action

In terms of the Environmental Assessment Policy of 1994 and the Environmental Management Act No 7 of 2007 (EMA), certain activities have been identified, which could have a substantially detrimental effect on the environment. These listed activities require an Environmental Clearance Certificate (ECC) from the competent environmental authority, i.e. Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (MEFT: DEA), prior to commencing. The following activities identified in the EIA Regulations (Table 1) apply to the proposed project:

**Table 1:** List of triggered activities identified in the EIA Regulations which apply to the proposed project

ACTIVITY DESCRIPTION	DESCRIPTION OF RELEVANT ACTIVITY	DEVELOPMENT ACTIVITIES THAT RELATE TO THE APPLICABLE LISTED ACTIVITY
<b>Activity 9.1 (Hazardous Substance Treatment, Handling and Storage)</b>	The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.	The project entails the rehabilitation of the existing fuel station.
<b>Activity 9.4 (Hazardous Substance Treatment, Handling and Storage)</b>	The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.	The project entails the storage of dangerous goods in underground containers for the existing fuel station.
<b>Activity 9.5 (Hazardous Substance Treatment, Handling and Storage)</b>	Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.	The project entails the rehabilitation of the existing fuel station.

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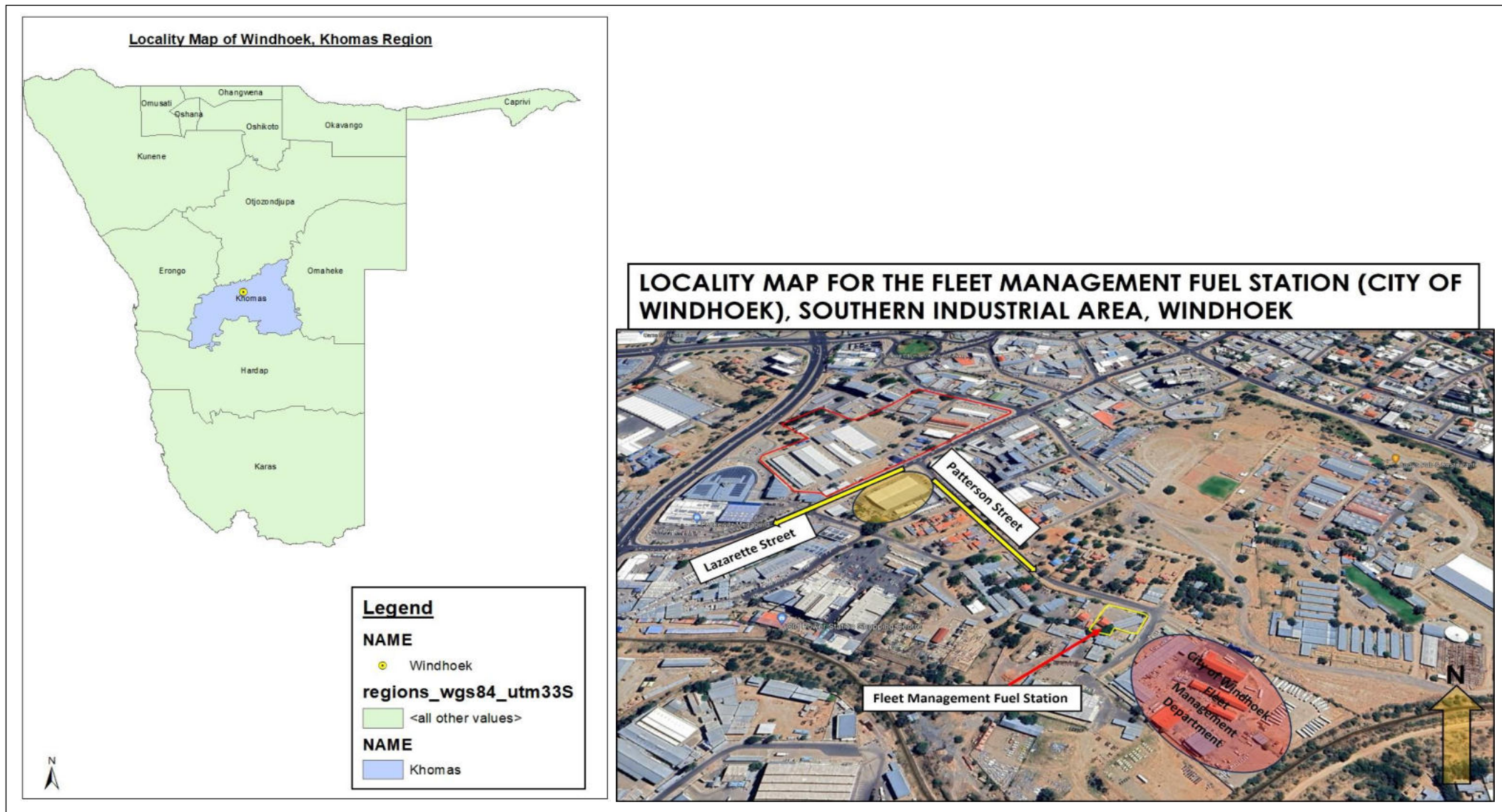
## 2 PROJECT LOCATION AND DESCRIPTION

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### *2.1 PROJECT LOCATION*

Windhoek is the capital city of Namibia located in the central area of the country in the Khomas highlands with an estimated population of 490 000 inhabitants. The capital city is situated in Khomas Region. ErF R/5890 for fuel station is located at the Municipal Fleet Division within the southern industrial area, Patterson Street – ***refer to figure 1 for the locality map below.***





**Figure 1:** Locality Map for the CoW Fleet Management Fuel Station, Windhoek

## 2.2 PROJECT INFORMATION AND DESCRIPTION

Om'kumoh Consulting Engineers on behalf of the City of Windhoek (*herein referred to as the proponent*) is of the intention to undertake renovations and upgrade the fuel station for the Fleet Management Division of the City of Windhoek. The site area is located on Erf R/5890 within the southern industrial area and measures approximately 1720 m<sup>2</sup> in extent. The area is currently zoned as industrial and is fit for utilization of industrial purposes as per the town planning scheme for the Municipality of Windhoek. The project area/site belongs to the City of Windhoek, and it is currently being utilized by the proponent as a fuel station for its transportation fleet.

The need and desirability for the City of Windhoek to seek for the Environmental Clearance Certificate arose given that the construction and operations of fuel stations is a listed activity as per the Environmental Impact Assessment Regulations that may not be undertaken without an Environmental Clearance Certificate (ECC). The fuel station was constructed during the time the Environmental Impact Assessment Regulations were not promulgated.

The City of Windhoek, Municipal Fleet Division has been tasked by the Ministry of Mines and Energy (MME) to upgrade and renovate the own-consumer fuelling station pumps and underground tanks to obtain a consumer installation certificate, comply with the South African National Standards (SANS) 10089-3:2010 and meet the general Health & Safety Site Environmental (HSSE) conditions. **SANS 29001** Petroleum, petrochemical and natural gas industries – Sector-specific quality management systems – Requirements for product and service supply organizations.

The upgrading and renovation of the fuelling station involves three main activities:

- Replace currently installed four (4) Underground Storage Tanks (9000L ULP, 23000L ULP & 2X23000L Diesel 50ppm) with two (2) Underground Storage Tanks (capacity of ULP 95 – 30 000L and diesel 50ppm- 30 000 L).
- Replace Paving under the forecourt with concrete spill slabs complete with spillage measures such as separator pits and spill slab grids.
- Upgrade the Fire Fighting and Protection System to comply with SANS 10400-T:2020
- Upgrade of the Electrical Installations to comply with the requirements of the safety requirements of SANS 10089 Part 2, together with SANS 1020, SANS 10142-1 & and SANS 10108.

According to the health and inspection report from the Ministry of Mines and Energy (MME), The City of Windhoek, Municipal Fleet Division fuelling station does not comply with SANS 10089-3:2010 standards and does not meet the general HSSE conditions. Consequently, the fuelling station was recommended to be discontinued.

Om'kumoh Consulting Engineers (proponent) is of the intention to acquire an Environmental Clearance Certificate (ECC) for the renovations and upgrade of the fuel station for the Fleet Management Division of the City of Windhoek and has appointed Namibia Environmental Consultants to undertake the environmental assessment exercise in order to obtain the ECC for the fuel station. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (MEFT: DEA).

The process will be undertaken in terms of the gazette Namibian Government Notice No. 30 Environmental Impact Assessment Regulations (herein referred to as EIA regulations) in terms of the Environmental Management Act (No 7 of 2007) (herein referred to as the EMA).

### 2.2.1 Existing Structure of the Fuel Station

The fuel station is well demarcated and fenced off – with boundary wall and only authorised personnel are allowed to enter. The fuel station belongs to the City of Windhoek and its ultimate purpose is to cater for the municipality's fleet (public transport and the municipality's vehicles) only.

On the site, there is existing underground tanks that were previously utilised by City of Windhoek. Given the unknown status quo of these tanks, a hydrogeological specialist was undertaken as part of this environmental exercise prior to the removal of the tanks. The hydrogeological specialist report is attached to this document under **Annexure B**.

Current structure of the fuel station consists of three (3) pumps (*refer to **figure 3** below*) which will be removed and replaced as part of the renovations for the site.

The City of Windhoek has been and will continue to be responsible for the management of the facility.

### 2.2.2 Engineering Services for the Fuel Station

The fuel station is located within an industrial area and has been in existence and utilized for business operations in which all engineering services (water, access roads, sewer, and electricity) are installed and are connected to fully integrate with the existing municipal network of Windhoek at large.

Therefore, no additional engineering services will be required for this activity.

#### **Access to the Site:**

Access to the fuel station (Fleet Management Division for the City of Windhoek) is obtained from Lazarette Street through an internal road (Patterson Street).

#### **Electricity:**

Electricity at the site is connected to the electricity network of Windhoek.

A detailed engineering design for the proposed renovations for the fuel station is attached under **Annexure D** of this document.

Below are some pictures of the fuel station.



**Figure 2: City of Windhoek Fleet Management Division**



**Figure 3: Fuel Station Site**

Existing Pumps on site – to be replaced.



**Figure 4:** Site Administration Office



**Figure 5:** Underground Tanks – To be replaced.

Existing underground Tanks on site



**Figure 6:** Fuel Station Courtyard – Fenced off.

## **2.3 PUBLIC PARTICIPATION PROCESS**

The purpose of this chapter is to provide an outline of the Public Participation Process, a summary of the process undertaken to date and the way forward with respect to public participation as part of this project. This chapter also provides a summary of the key issues that have been raised to date.

### **2.3.1 Public Participation Requirements**

In terms of Section 21 of the EIA Regulations a call for open consultation with all I&APs at defined stages of the EIA process is required. This entails participatory consultation with members of the public by providing an opportunity to comment on the proposed project. Public Participation has thus incorporated the requirements of Namibia's legislation, but also takes account of international guidelines, including Southern African Development Community (SADC) guidelines and the Namibian EIA Regulations. Public participation in this project has been undertaken to meet the specific requirements in accordance with the international best practice.

### **2.3.2 Proposed Approach**

The public participation process (PPP) undertaken for this project can be divided into the following phase:

- Project initiation;
- Environmental Assessment Phase (neighbours consultation); and
- Compilation of the Operational Environmental & Social Management Plan.

### 2.3.3 Initiation of the Public Participation Process

The approach adopted for the initiation of the EIA and associated PPP was to identify and contact potential I&APs as possible through several activities which included:

- Consultation with immediate neighbours adjacent to the City of Windhoek Fleet Management Fuel Station site (refer to **Annexure C**);

The consultation process was initiated with consulting members of the community (neighbours in close proximity to the site). The participants were asked to raise concerns regarding the operations of the of the fuel station in which no negative concerns were raised regarding the operations of the fuel station. The process and objective of the consultation was explained thoroughly to the participants.

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## 3 LEGAL ENVIRONMENTAL FRAMEWORK

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*This chapter provides an overview of the legislation and policy framework for the EIA being undertaken. The EIA will be undertaken in compliance with the relevant Namibian environmental legislation as well as taking into account international best practice for impact assessments.*

### **3.1 THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA**

There are two clauses contained in the Namibian Constitution that are of particular relevance to sound environmental management practice, viz. articles 91(c) and 95(l). In summary, these refer to:

- Guarding against over-utilisation of biological natural resources;
- Limiting over-exploitation of non-renewable resources;
- Ensuring ecosystem functionality;
- Protecting Namibia's sense of place and character;
- Maintaining biological diversity; and
- Pursuing sustainable natural resource use.

The above therefore commits the State to actively promote and sustain environmental welfare of the nation by formulating and institutionalising policies to accomplish the abovementioned sustainable development objectives.

### **3.2 NAMIBIA'S ENVIRONMENTAL MANAGEMENT ACT (EMA)**

In giving effect to articles 91(c) and 95(l) of the Constitution of Namibia, general principles for sound management of the environment and natural resources in an integrated manner have been formulated. This resulted in Namibia's Environmental Assessment Policy of 1994. To give statutory effect to this Policy, the Environmental Management Act was approved in 2007, and gazetted on 27 December 2007 as the Environmental Management Act (Act No. 7 of 2007) (EMA), Government Gazette No. 3966. Part 1 of the Environmental Management Act describes the various rights and obligations that pertain to citizens and the Government alike, including an environment that does not pose threats to human health, proper protection of the environment, broadened locus standi on the part of individuals and communities, and reasonable access to information regarding the state of the environment. Part 2 of the Act sets out 13 principles of environmental management, as follows:

- Renewable resources shall be utilised on a sustainable basis for the benefit of current and future generations of Namibians.
- Community involvement in natural resource management and sharing in the resulting benefits shall be promoted and facilitated.
- Public participation in decisions affecting the environment shall be promoted.
- Fair and equitable access to natural resources shall be promoted.



- Equitable access to sufficient water of acceptable quality and adequate sanitation shall be promoted and the water needs of ecological systems shall be fulfilled to ensure the sustainability of such systems.
- The precautionary principle and the strategy of preventative action shall be applied.
- There shall be prior environmental assessment of projects and proposals which may significantly affect the environment or use of natural resources.
- Sustainable development shall be promoted in land-use planning.
- Namibia's movable and immovable cultural and natural heritage, including its biodiversity, shall be protected and respected for the benefit of current and future generations.
- Generators of waste and polluting substances shall adopt the best practicable environmental option to reduce such generation at source.
- The polluter pays principle shall be applied.
- Reduction, reuse and recycling of waste shall be promoted.
- There shall be no importation of waste into Namibia.
- Promotion of the coordinated and integrated management of the environment;
- The Minister of Environment and Tourism was enabled to give effect to Namibia's obligations under international environmental conventions;
- Certain institutions were established to provide for a Sustainable Development Commission and Environmental Commissioner".

As the organ of state responsible for management and protection of its natural resources, the MEFT: DEA is committed to pursuing these principles of environmental management.

### **3.3 ENVIRONMENTAL GUIDELINES**

The EMA, under section 5, states that if a proposal is likely to affect people, the following guidelines should be considered in Scoping / EA:

- The location of the development in relation to interested and affected parties (I&APS), communities or individuals;
- The number of people likely to be involved;
- The reliance of such people on the resources likely to be affected, the resources, time and expertise available for scoping / EA;
- The level of education and literacy of parties to be consulted;
- The socio-economic status of affected communities;
- The level of organisation of affected communities;
- The degree of homogeneity of the public involved;
- History of any previous conflict or lack of consultation;
- Social, cultural or traditional norms within the community; and
- The preferred language used within the community.

The MEFT also released a Draft Procedures and Guidelines for conducting EIAs and compiling EMPs in April 2008. These guidelines outline the procedures and principles that are to be followed. It will be consulted throughout the EIA process to ensure an effective process and an ESMP that addresses all identified impacts.

### **3.4 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; and
- 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 basic services. The importance of developing Wealth, Livelihood and the Economy is also emphasised by Vision 2030. This development therefore supports the goals to be achieved in Vision 2030, because the bulk services will provide the community currently living in non-favourable conditions with potable water, electricity and waste removal services. Not only will this improve their health, it will also result in further development of Windhoek.

### **3.5 BIODIVERSITY LEGISLATION AND POLICIES**

The following policies, aimed at biodiversity, may also be relevant for the proposed project:

- Convention on Biological Diversity (2000)
- Namibian Water Corporation Act (1997)
- Pollution and Waste Management Bill (Draft)
- Soil Conservation Act (1969)
- United Nations Framework Convention on Climate Change (1992)
- Water Resources Management Act (2004)
- Climate Change Policy (Draft with Attorney General's office)

The applicability of the aforementioned policies and legislation has been explored in further detail during this EIA phase, based on the findings of the impact assessment and specialist investigations.

### **3.6 WATER ACT NO.54 OF 1956**

This Act provides for Constitutional demands including pollution prevention, ecological and resource conservation and sustainable utilisation. In terms of this Act, all water resources are the property of the State and the EIA process is used as a fundamental management tool.

A water resource includes a watercourse, surface water, estuary or aquifer, and, where relevant, its bed and banks. A watercourse means a river or spring; a natural channel in

which water flows regularly or intermittently; a wetland lake or dam, into which or from which water flows; and any collection of water that the Minister may declare to be a watercourse. Permits are required in terms of the Act for undertaking the following activity relevant to the proposed project:

- Disposal of wastewater in a manner that may detrimentally impact on a water resource in terms of Section 21 (g).

### ***3.7 WATER RESOURCES MANAGEMENT ACT OF NAMIBIA (2004)***

This act repealed the existing South African Water Act No.54 of 1956 which was used by Namibia. This Act ensures that Namibia's water resources are managed, developed, protected, conserved and used in ways which are consistent with fundamental principles depicted in section 3 of this Act. Part IX regulates the control and protection of groundwater resources. Part XI, titled Water Pollution Control, regulates discharge of effluent by permit.

### ***3.8 THE DRAFT WETLAND POLICY (1993)***

This policy requires that any wetlands and its associated hydrological functions form a part to be managed in such a way that their biodiversity, vital ecological functions and life support systems are protected for the benefit of present and future generations.

### ***3.9 POLLUTION CONTROL AND WASTE MANAGEMENT BILL (IN PREPARATION)***

This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. The Bill will repeal the Atmospheric Pollution Prevention Ordinance (11 of 1976) (below) when it comes into force.

Only Parts 2 and 7 of the Bill applies to the renovations of the existing fuel station for the City of Windhoek in Windhoek.

Part 2 stipulates that no person shall discharge or cause to be discharged any pollutant to the air from a process except under and in accordance with the provisions of an air pollution licence issued under section 23. It further provides for procedures to be followed in licence application, fees to be paid and required terms of conditions for air pollution licences.

Part 7 states that any person who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent authority, in accordance with sub-section (2), of the presence and quantity of those substances.

In terms of water pollution, it will be illegal to discharge of, or dispose of, pollutants into any watercourse without a Water Pollution Licence (apart from certain accepted discharges). Similarly, an Air Quality Licence will be required for any pollution discharged to air above a certain threshold.

The Bill also provides for noise, dust or odour control that may be considered a nuisance. The Bill advocates for duty of care with respect to waste management affecting humans and the environment and calls for a waste management licence for any activity relating to waste or hazardous waste management.

This bill aims to promote sustainable development and to prevent and regulate the discharge of pollutants into the environment. Once this bill is enacted it will make provision for the establishment of an appropriate framework for integrated pollution prevention and control.

The proposed development would not entail the discharge to air and or water, but might result in the generation of noise and dust during waste compaction.

### ***3.10 PUBLIC HEALTH ACT 36 OF 1919 AND SUBSEQUENT AMENDMENTS***

The Act, with emphasis to Section 119 prohibits the presence of nuisance on any land occupied. The term nuisance for the purpose of this EIA is specifically relevant specified, where relevant in Section 122 as follows:

- Any area of land kept or permitted to remain in such a state as to be offensive, or liable to cause any infectious, communicable or preventable disease or injury or danger to health; or
- Any other condition whatever which is offensive, injurious or dangerous to health.

### ***3.11 NATIONAL HERITAGE ACT (NO.76 OF 1969)***

The Act calls for the protection and conservation of heritage resources and artefacts. Should any archaeological material, e.g. old weapons, coins, bones found during the construction and operational phase work should stop immediately and the National Heritage Council of Namibia must be informed as soon as possible. The Heritage Council will then decide to clear the area or decide to conserve the site or material.

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## 4 RESPONSIBLE PARTIES

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The City of Windhoek (as the sole proponent and owner of the site) will be responsible for the implementation of this Operational Environmental Management Plan (OESMP) during the operational phase of the fuel station. This responsibility, in some instances may be delegated to contractors in the employment for the City of Windhoek for practical purposes, but City of Windhoek will retain legal responsibility. In that capacity, City of Windhoek should delegate suitably qualified person(s) with the responsibility to ensure implementation of the ESMP and will:

- Revise the ESMP as required and inform the relevant parties of the changes.
- Protect the environment and rehabilitate the environment as prescribed in the ESMP.

The following people are also required during the operation in order to implement various Environmental management related issues.

### 4.1 ENVIRONMENTAL CONTROL OFFICER

Due to the operation of the fuel station, a suitably qualified and experienced Environmental Control Officer (ECO) shall be appointed by the proponent to ensure that the mitigation rehabilitation measures are implemented and to ensure compliance with the provisions of the ESMP. The ECO will represent the Ministry of Environment, Forestry & Tourism: Department of Environmental Affairs (MEFT: DEA) and is responsible for environmental monitoring and audits.

#### 4.1.1 Roles and Responsibilities

The role of the ECO is to oversee and monitor compliance with and implementation of the operational phase ESMP. The ECO is therefore responsible for the following responsibilities:

- i. Liaison with the community, City of Windhoek and Environmental Authorities;
- ii. Ensuring that the requisite remedial action is implemented in the event of non-compliance;
- iii. Ensuring the proactive and effective implementation and management of environmental protection measures;
- iv. Ensuring that a register of public complaints is maintained by the proponent and that any and all public comments or issues are appropriately reported and addressed;
- v. Routine recording and reporting of environmental activities on a monthly basis;
- vi. Recording and reporting of environmental incidents;
- vii. Notifying the Environmental Authorities immediately of any events or incidents that may cause significant environmental damage or breach the requirements of the ESMP and
- viii. Environmental Awareness Training courses to be conducted to the Contractor's entire team of workers.

- ix. Ensure that periodic environmental performance audits are undertaken on the project implementation.
- x. Take appropriate action if the specifications contained in the ESMP are not followed.
- xi. Monitor and verify that environmental impacts are kept to a minimum, as far as possible.
- xii. Ensure that activities on site comply with all relevant environmental legislation.

#### ***4.2 THE CITY OF WINDHOEK (CoW)***

The City of Windhoek must undertake to monitor activities on a daily basis and the ultimate responsibility for satisfying the monitoring requirements. The manager is also responsible for ensuring compliance with all aspects of monitoring.

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## 5 MANAGEMENT OBJECTIVES AND PRINCIPLES

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The following objectives provide the framework for the environmental principles for environmental management of the project:

- Avoid “disturbing” noise levels (an increase in the ambient noise level of 7dB (A) or more at the border of the property from which the noise emanates).
- Minimise the use of clean water and avoid water wastage.
- Prevent the contamination of surface and ground water as a result of the renovation activities.
- Ensure that an appropriate Emergency Procedure is in place to safeguard the environment, local community and employees.
- Reduce the disturbance of the surrounding community from site activities to a minimum.
- Maintain transparent relations with the Interested & Affected Parties (IAPs) (including neighbours to the site, authorities and employees).
- Ensure that the community and employees are not subjected to increased safety hazards.

These guideline principles will form the basis for environmental management on site. Should these principles require modification or additions during the implementation of the project this should be done at the discretion of the responsible person, who will ensure that any modifications are communicated, explained to and discussed with all affected parties.

The environmental operational procedures and environmental issues are identified and managed, under different phases of the project. The different phases are:

- Operational Phase; and
- Decommissioning Phase

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## 6 OPERATIONAL PHASE

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### 6.1 SCOPE

The general principles contained within the ESMP shall apply to all operational activities. All operational activities shall observe any relevant environmental legislation and in so doing shall be undertaken in such a manner as to minimise impacts on the natural and social environment.

### 6.2 GENERAL

Om'kumoh Consulting Engineers, as the proponent is responsible for:

- Ensuring that the objectives of the ESMP are given effect;
- Ensuring that all environmental impacts are managed in accordance with the ESMP;
- Ensuring that all monitoring and compliance auditing occurs in line with the ESMP;
- Ensuring that the environment is rehabilitated as far as practicable to its natural state or existing land use practices;
- Any environmental damage, pollution as a result of activities both in and outside the site boundaries.

With regards to the above, The City of Windhoek shall conduct his activities to cause the least possible disturbance to the existing amenities, whether natural or man-made in accordance with all the current statutory requirements. Special care shall be taken by the Company manager or responsible person (s) to prevent irreversible damage to the environment.

Om'kumoh Consulting Engineers shall take adequate steps to educate all members of his workforce as well as his supervisory staff on the relevant environmental laws and protection requirements. Om'kumoh Consulting Engineers shall supplement these steps with prominently displayed notices and signs in strategic locations to remind personnel of environmental obligations.

A suitably qualified independent ECO shall be appointed by the company representative or responsible person (s) to undertake the following tasks:

- Monitoring of all activities for compliance with the various environmental requirements at regular intervals;
- Routine environmental auditing and reporting of the Fuel Station performance against the ESMP;
- Reporting of environmental incidents and routine reporting of environmental issues associated with any possible construction activities and
- Identifying environmental non-conformances and initiating measures to remedy such issues.

### 6.3 ENVIRONMENTAL AWARENESS AND COMPETENCE

It is important to ensure that all personnel have the appropriate level of environmental awareness and competence to ensure continued environmental due diligence and ongoing minimisation of environmental harm.



### 6.3.1 Environmental, Health and Safety Induction Course

Om’kumoh Consulting Engineers is responsible for informing employees of their environmental obligations in terms of the ESMP and for ensuring that employees are adequately experienced and properly trained in order to execute the works in a manner that will minimise environmental impacts.

Om’kumoh Consulting Engineers shall ensure that all its employees attend an Environmental, Health and Safety Induction Course. This course shall be structured to ensure that attendees:

- Acquire a basic understanding of the key environmental features on the site and its immediate environs;
- Become familiar with the environmental controls contained in the ESMP;
- Are made aware of the need to conserve water;
- Receive pertinent, written instructions regarding compliance with the relevant environmental management requirements (typical environmental “do’s” and “don’ts”);
- Receive detailed training on site health and safety requirements, emergency responses and site evacuation procedures in terms of the Contractor’s health and safety plan;
- Are aware that a copy of the ESMP is readily available on site and that all site staff are aware of the location and have access to the document;
- Are informed that employee information posters, outlining the environmental “do’s” and “don’ts” will be placed at prominent locations throughout the site.

### 6.3.2 Working Times

Given the operational phase of the fuel station, Om’kumoh Consulting Engineers is expected to adhere to working times of employees. Working shifts must be strictly implemented even on public holidays (if necessary).

## **6.4 ENVIRONMENTAL CONSIDERATIONS PERTAINING TO SITE LAYOUT - WHERE APPLICABLE**

### 6.4.1 Access, Traffic and Haul Roads

Om’kumoh Consulting Engineers shall be held responsible for the control of the fuel station in ensuring that Contractors remain on designated routes and within designated working times. The following mitigation measures are further proposed to limit the impact of traffic in the area:

- Where possible, repair or upgrade existing roads/tracks.
- Road surface should be regularly assessed and upgraded where appropriate (if gravel road).
- No off-road driving is allowed.
- Good driving and adherence to safety rules at all times.
- Drivers must have the correct licence for the vehicle they are operating.

No new parking bay, haul or access road or passage of any sort shall be opened or be caused to be opened without prior consent of the City of Windhoek.

## 6.4.2 Solid Waste Management

The company manager or responsible person (s) and shall provide sufficient number of rubbish bins with secured lids. Rubbish bins shall always be placed in pairs, to ensure that one is always present while the other is being emptied. Areas where rubbish is likely to be generated in higher quantities shall be equipped with an additional rubbish bin according to the activities occurring there and the volume of waste being generated.

No waste materials, including domestic, organic or construction wastes shall be burnt, dumped or buried on the premises. Bins shall be emptied daily or as required. The waste may be stored temporarily on the premises in a central waste area that is weather and scavenger proof.

The company manager or responsible person (s) shall, at their own cost, make available the time and resources required in recovering any litter or other wastes that have accumulated or have been dispersed as a result of his activities at the premises. The central waste storage shall be emptied weekly or as necessary.

## 6.4.3 Equipment Maintenance and Storage

All vehicles and equipment shall be kept in good working order and shall be operated by designated and competent operators. Leaking or damaged equipment shall be repaired immediately or removed from the site. Where emergency, *in situ* maintenance operations are required, the company manager or responsible person (s) shall ensure that the soil does not become contaminated.

In the event of oil / lubricant or other hazardous spill, the source of the spillage shall be isolated, and the spillage contained. The company manager or responsible person (s) shall clean up the spill by removing the contaminated soil to the hazardous waste vessel and the application of absorbent material to the affected area. Treatment and remediation of the spill area shall be undertaken to the reasonable satisfaction of the Environmental Authorities.

Om'kumoh Consulting Engineers shall ensure that oil and lubricant containers are stored in an area where the ground has been protected. The containers shall be inspected regularly to ensure that no leakage occurs. The dispensing mechanism of the oil / lubricant storage container shall be stored in a waterproof container when not in use. Om'kumoh Consulting Engineers or the Contractors shall take all reasonable precautions to prevent accidental and incidental spillage during the use of oils.

## 6.4.4 Materials

### 6.4.4.1 Materials Handling, Use and Storage

The Contractor operating on site shall be aware of all procedures and restrictions, including “no-go” areas and designated haul routes.

The Contractor shall be responsible for any clean-up resulting from the failure by his employees.

## 6.4.5 Fuel and Oil

The company manager shall prevent unauthorised access to the fuel storage area. No smoking shall be permitted in the vicinity of the storage area. The company manager or responsible person (s) ensures that there are adequate fire-fighting provisions located at the fuel storage area.

#### 6.4.6 Fire Control

Fires are NOT by all means permitted at the site. Any fires that occur outside of designated areas shall be reported to Om'kumoh Consulting Engineers or the City of Windhoek immediately.

Om'kumoh Consulting Engineers shall be responsible for ensuring that immediate and appropriate actions are taken in the event of a fire and shall ensure that employees are aware of the procedures to be followed.

#### 6.4.7 Water Quality, and Storm Water Control

The company manager and the tenants shall take all reasonable steps to prevent or remediate damage to the environment resulting from the works in the form of improper storm water control management. The company manager shall immediately remedy any situation that is or has the potential to result in water pollution from the works as a result of storm water flows. If required, the company manager shall establish necessary storm water control mechanisms to effectively control the movement of water onto, through and off the premises.

#### 6.4.8 Emergency Procedures

The company manager or responsible person (s) shall ensure that the necessary materials and equipment for dealing with leaks and spills are available at on site at all times.

### **6.5 PROTECTION OF NATURAL FEATURES AND HERITAGE RESOURCES**

#### 6.5.1 Archaeological and Heritage Context

The Khomas Region like the rest of Namibia is home to many different cultural groups. The rich variety and distinct cultural values and traditions render a unique character to Namibian society that is a human resource to be proud of and a heritage that needs to be protected and enhanced. Culture shapes the destiny of people and stabilizes the lives of the respective groups on a local level.

No known heritage sites are however located within the surroundings of the premises. **If any heritage or cultural significant artefacts are found in future, the National Heritage Council of Namibia shall be immediately notified.**

### **6.6 COMPLIANCE AND PENALTIES**

#### 6.6.1 Compliance

Environmental management is concerned with the results of the proponent's operations to carry out the control of how the operations of the fuel station are carried out. Tolerance with respect to environmental matters applies not only to the finished product but also to the standards of the day-to-day operations required to complete the works.

It is thus required that Om'kumoh Consulting Engineers shall comply with the environmental requirements on an on-going basis and any failure to do so will entitle the ECO to certify the imposition of a penalty as detailed below if such non-compliance is not corrected within a period of one week of notification thereof.

#### 6.6.2 Penalties

Penalties will be issued for certain transgressions. Penalties may be issued per incident at the discretion of the ECO. The ECO will inform the company manager or responsible person

(s) of the contravention and the amount of the penalty and shall be entitled to deduct the amount from the monies due under the Contract.

Penalties for the activities detailed below will be imposed by the ECO on the proponent.

- a) Persistent and un-repaired oil leaks from any operating machinery on site
- b) Persistent failure to monitor and empty drip trays timeously.
- c) The use of inappropriate methods for refuelling, resulting in spillages.
- d) Deliberate lighting of illegal fires on site.
- e) Employees not making use of site ablution facilities.
- f) Unauthorised removal of vegetation.

For each subsequent similar offence, the penalty shall be doubled in value. The ECO shall be the judge as to what constitutes a transgression in terms of this clause.

### **6.7 ENVIRONMENTAL INCIDENT REPORTING**

All environmental incidents occurring at the proposed site will be recorded. The incident report will have to include time, date, location and nature of the incident, extent of the incident, actions and personnel involved.

All complaints received from the neighbours should be directed to Om’kumoh Consulting Engineers management during the renovation phase and also to the City of Windhoek during operational phase. In addition, the proponent’s management should also be able to respond to the complainant within a week (even if pending further investigation).

It is important that the issues raised are considered and that the complainant feels that their concerns have been addressed to and whenever possible actions taken to address these. All complaints should be entered in the environmental register.

### **6.8 ENVIRONMENTAL MONITORING**

Periodic environmental monitoring should be done to ensure compliance with all aspects of the ESMP. Findings should be liaised with to all responsible officers as chain command.

### **6.9 NON-COMPLIANCE OF THE ESMP**

Problems may occur in carrying out mitigation measures or monitoring procedures that could result in non-compliance of the ESMP. The responsible personnel should encourage staff to comply with the ESMP and address acts of non-compliance and penalties.

Om’kumoh Consulting Engineers is responsible for reporting non-conformance with the ESMP to the ECO during the renovation phase. The proponent’s management in consultation with the ECO must thereafter undertake the following activities:

- Investigate and identify the cause of non-conformance.
- Report matters of non-conformance to Om’kumoh Consulting Engineers (depending on the severity of the incident)
- Implement suitable corrective action as well as prevent recurrence of the incident.
- Assign responsibility to corrective and preventative action.

- Any corrective action taken to eliminate the causes of non-conformance shall be appropriate to the magnitude of the problems and commensurate with the environmental impact encountered.

## 6.10 SUMMARY OF OPERATIONAL PHASE MANAGEMENT ACTIONS

The table below is only a summary the management actions to be taken in order to minimise negative impacts. Please turn back to the relevant section above for more details on the various management actions to be taken for each impact.

**Table 2:** Summarized Management Actions Table

Aspect	Management Objective	Management actions	Responsibility
General	To ensure overall compliance of the ESMP.	<ul style="list-style-type: none"> <li>A maintenance plan for Erf R/5890 must be developed to ensure that good working order is achieved.</li> </ul>	City of Windhoek
Monitoring	To avoid environmental pollution from potential leakages.	<ul style="list-style-type: none"> <li>A monitoring and eradication programme should be put in place whereby the distribution and abundance of alien and invader fauna are monitored through fixed trapping points.</li> </ul>	City of Windhoek
Safety to the public	To reduce the risks posed by the operations on the premises to the public.	<ul style="list-style-type: none"> <li>Where the public could be exposed to danger by any of the activities on the premises, the responsible tenant shall provide flagmen, barriers, and/or warning signs in English.</li> </ul>	City of Windhoek & Om'kumoh Consulting Engineers
Penalties	To ensure that environmental requirements are strictly adhered to.	Penalties will be issues for certain specified transgressions.	City of Windhoek

**Table 3:** Summarized Operational Phase Management Table

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
Hydrocarbon spills or leakages on the surface or subsurface could contaminate groundwater (soil and groundwater impacts).	To avoid environmental pollution from potential leakages.	Permanent	<ul style="list-style-type: none"> <li>The forecourt will be concrete paved to prevent infiltration of fuel into the subsurface soils with surface runoff designed to flow towards a centralized collection point which is connected to an on-site oil/ water separator (trap);</li> <li>Tanks shall be fitted with an overfill protection system or device. The critical level shall be such that a space remains in the tank to accommodate the delivery hose volume;</li> <li>An HDPE sheet must be installed in the excavation under the tank, to direct any flow from a leak, towards the environment</li> </ul>	Om'kumoh Consulting Engineers

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<p>and possible groundwater sources.</p> <ul style="list-style-type: none"> <li>• In the event of a fuel spillage or leaks that have the potential to impact on nearby water resources, the authorities should be informed, and the fuel must be extracted and collected in a suitable container and disposed of at a licensed hazardous waste site. The general area should be treated with an absorbing agent.</li> <li>• Monthly visual inspections must be conducted of all above-ground fuel dispensing equipment on the site to check for damage. Visual and factory checks for possible product leaks should also be carried out across the site.</li> <li>• Maintenance of dispensing pumps is essential to reduce the likelihood of spills.</li> </ul>	
Storage, handling, and transportation of dangerous goods on the site (safety and security impact).	To avoid environmental pollution from potential leakages.	Short-Term & Permanent	<ul style="list-style-type: none"> <li>• The design and management of the site area must conform to the relevant fire safety standards and legislation.</li> <li>• No smoking can be allowed in the vicinity of flammable substances and the relevant signage must be displayed.</li> <li>• Firefighting equipment/ systems must be available at all times and serviced regularly (at least annually).</li> <li>• All employees and sub-contractors on-site must be trained in the implementation of effective Health and Safety policies.</li> <li>• A system must be devised to record any incidents and/ or accidents.</li> </ul>	Om'kumoh Consulting Engineers
Solid Waste Management	To ensure that there is no illegal disposal of waste.	Short-Term & Permanent	<ul style="list-style-type: none"> <li>• Waste must be separated into items which can be reused, composted or recycled and send the remaining portion to the general waste stream for disposal at the landfill site.</li> </ul>	Om'kumoh Consulting Engineers & City of Windhoek

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<ul style="list-style-type: none"> <li>• All staff should be made aware of the aim to recycle waste by means of posters, training and staff meetings.</li> <li>• Between collection periods, all waste/recyclable materials generated upon the site shall be kept in enclosed bins with securely fitting lids so that the contents are not able to leak or overflow and blown away by the wind.</li> <li>• Waste must be removed and disposed off at an authorized landfill site in Windhoek by the City of Windhoek or the proponent's waste removal contractors.</li> <li>• Waste skips must be emptied on a daily basis and must be coded.</li> <li>• Arrangements must be in place for the regular maintenance and cleaning of waste/recycling storage areas.</li> </ul>	
Increased activity on the site and minor increase in traffic (noise impact).	To limit noise levels on site.	Short-Term	<ul style="list-style-type: none"> <li>• Noise levels shall be kept within acceptable limits, and all staff must abide by the relevant Noise Control Regulations.</li> <li>• Compressors, standby generators and air conditioner motors should be placed in a protected/ enclosed area and maintained regularly;</li> <li>• A noise control policy must be compiled and enforced to control the level of noise at the facility, paying particular attention to the nearest residential properties.</li> </ul>	Om'kumoh Consulting Engineers
Traffic flow and safety impacts	Operational traffic shall be controlled to ensure minimal disruption to normal road users.	Short-Term	<ul style="list-style-type: none"> <li>• Road surfaces in the immediate vicinity of the site should be monitored and the relevant authority should be notified of any unsafe situation;</li> <li>• Access to the fuel station site and the other site activities should be clearly indicated;</li> <li>• A speed limit of not more than 5 km/h should be applied in the</li> </ul>	Om'kumoh Consulting Engineers



Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<p>forecourt area of the site.</p> <ul style="list-style-type: none"> <li>The proposed development must provide adequate onsite parking, loading facilities and maneuvering space for the light and heavy vehicles as well as trucks delivering to the site area.</li> </ul>	
Dust	To limit dust levels	Short-Term	<ul style="list-style-type: none"> <li>Constant rehabilitation must be implemented.</li> </ul>	Om'kumoh Consulting Engineers
Air Quality	To limit air quality impacts.	Short-Term	<ul style="list-style-type: none"> <li>During windy or dry periods, dust suppression techniques should be implemented.</li> <li>Vehicles and equipment must be properly maintained to limit the release of harmful gases.</li> </ul>	Om'kumoh Consulting Engineers
Water quality, surface water and storm water management	To avoid contamination of surface water sources from possible leakages.	Short-Term	<ul style="list-style-type: none"> <li>The company manager shall immediately remedy any situation that is or has the potential to result in water pollution from the works operation as a result of storm water flows.</li> <li>Regular bulk services infrastructure and system inspection should be conducted.</li> <li>With regards to surface water, all spills (of any kind) should be cleaned up as soon as possible. The presence of an emergency response plan and suitable equipment is advised, to react to any spillage or leakages properly and efficiently.</li> </ul>	Om'kumoh Consulting Engineers
Ecological Impacts	To minimize the disturbance of flora and fauna found within the site area	Short-Term	<ul style="list-style-type: none"> <li>Minimize the area of disturbance by restricting movement to the designated working areas during maintenance.</li> <li>Prevent illegal removal of protected vegetation on site.</li> <li>Remove invasive alien species on site.</li> </ul>	Om'kumoh Consulting Engineers
Refueling and Maintenance	Protection of ground / surface / stormwater resources and environment	Permanent	<ul style="list-style-type: none"> <li>Tankers shall offload fuel into underground tanks by means of gravity filling unless an engineered system / adaptor is fitted that</li> </ul>	City of Windhoek

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<p>prevents excess pressure being placed on the tank.</p> <ul style="list-style-type: none"> <li>• Maintenance or any replacement activities must comply with all the relevant regulations and all procedures and equipment used must consider Occupational Health &amp; Safety and applicable (SANS) codes.</li> <li>• Safety signs at fuel dispensing points and tank vent pipes to be erected.</li> <li>• Chemical spill kits to be always kept on site at an easily accessible location.</li> </ul>	
Accidental leaks and spills	Prevention of the contamination of the environment because of accidental leaks and spills	Permanent	<ul style="list-style-type: none"> <li>• Undertake routine groundwater monitoring through the existing monitoring network once the site becomes operational to proactively ensure no detrimental impacts occur at the site. This should be monitored annually using the monitoring wells installed as part of the geohydrological site assessment.</li> <li>• All fuel, oil, and other hazardous substances such as degreasers and paint cleaners should be stored in suitable containers or storage facilities.</li> <li>• Suitable warning signs indicating the nature of the stored materials shall be displayed at the storage facilities.</li> <li>• The Operator shall ensure that its employees are aware of the procedure to be followed for dealing with accidental leaks and spills.</li> <li>• Any large accidental leak and spill of fuel, oil or other hazardous substances is to be reported to the ECO. The ECO will assess the situation and act as required so that the best remediation method can be quickly implemented.</li> <li>• In the event of a hazardous substance spill / leak, the source of</li> </ul>	City of Windhoek

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<p>the spill / leak shall be isolated, and the spillage contained. The area shall be cordoned off and secured.</p> <ul style="list-style-type: none"> <li>Contaminated material and / or soil shall be collected and stored in a bunded area until future disposal / bioremediation or removed from site.</li> <li>All contaminated materials shall either undergo bioremediation in a suitably contained area or disposed of at a suitably approved waste management facility.</li> <li>The proponent shall ensure that there is always a supply of absorbent material readily available to absorb / breakdown spills.</li> </ul>	
Fire control and emergency response			<ul style="list-style-type: none"> <li>The proponent shall take all reasonable steps to prevent the accidental occurrence or spread of fire.</li> <li>Fire officers appointed by the proponent shall notify the local Fire and Emergency Service in the event of a fire and shall not delay doing so until such time as the fire is control.</li> <li>All fire-fighting equipment shall comply with SANS Standards.</li> <li>All site personnel shall be aware of the procedure to be followed in the event of a fire and that all personnel are properly trained in emergency response.</li> <li>Adequate fire-fighting equipment shall always be on site (which shall include, but not limited to, fire extinguishers, protective clothing, and beaters).</li> <li>Smoking is not allowed, other than at designated smoking points which are clearly marked as such. Cigarette butts shall not be discarded on the ground.</li> <li>Appropriate signage like danger, flammable liquids and no</li> </ul>	City of Windhoek

Aspect	Management Objective	Duration of Impact	Management Actions	Responsibility
			<p>smoking shall be displayed at the convenience store and forecourt fuelling areas.</p> <ul style="list-style-type: none"> <li>An Emergency Response Plan shall be compiled and adhered to. The plan shall present emergency response procedures in the event of a fire, fuel leak or any other emergency.</li> <li>Ensure that all personnel are properly trained in emergency response.</li> </ul>	
Health and Safety	To ensure and maintain the safety workers on site.	Permanent	<ul style="list-style-type: none"> <li>An emergency plan (including fire management) must be developed and implemented; the relevant authority must approve this plan.</li> <li>Ensure that all fire extinguishers are replaced on or before their expiry dates.</li> </ul>	Contractor / City of Windhoek
Emergency Procedures	All employees are aware of emergency procedures.	Permanent	<ul style="list-style-type: none"> <li>The City of Windhoek shall ensure that employees are aware of the procedure to be followed for dealing with (any) leaks and spills.</li> <li>The City of Windhoek shall ensure that the necessary materials and equipment for dealing with (any) leaks and spills (operating machinery) are available on the site at all times.</li> </ul>	Contractor / City of Windhoek
Rehabilitation	When the site has reached capacity, all material, temporary structures, temporary fences, plant and equipment are completely removed from the site.	Permanent	<ul style="list-style-type: none"> <li>Rehabilitation operations and re-vegetation of all disturbed areas shall commence as soon as possible and even run concurrently where appropriate.</li> </ul>	City of Windhoek
Penalties	To ensure that environmental requirements are strictly adhered to.	Permanent	Penalties will be issues for certain specified transgressions.	City of Windhoek

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## 7 DECOMMISSIONING PHASE & ENVIRONMENTAL MONITORING

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### *7.1 DECOMMISSIONING PHASE*

Given the nature and purpose of the infrastructure, it is unlikely that this infrastructure will be decommissioned in the foreseeable future. In the unlikely event that use of the infrastructure is discontinued by City of Windhoek, the infrastructure should be “mothballed” or made available or sold to the surrounding land users. Removal of the infrastructure is likely to cause more environmental harm than its abandonment.

### *7.2 MONITORING, REPORTING AND AUDITING*

Monitoring measures during the operational phase is as follows:

- Monthly visual inspections must be conducted at the fuel station site to check for any environmental incidences.
- Bi-annual audit or environmental monitoring reports should be prepared by the ECO or the appointed Environmental Consultant and submitted to the proponent, and MEFT: DEA.
- Any change in the scope of works during the operation of the fuel station shall be documented and reported to the competent authority accordingly.

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## 8 CONCLUSION

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In conclusion it should be noted that this ESMP should be regarded as a living document and changes should be made to the ESMP as required by project evolution while retaining the underlying principles and objectives on which the document is based.

The compilation of the ESMP has incorporated impacts and mitigation measures as well as incorporating principles of best practice in terms of environmental management.

In addition, provided the operational impacts for this project are mitigated as per the ESMP, the project will result in impacts that should not negatively affect the environment.

It is the proponent's responsibility to ensure that this ESMP is made a binding document on the contractor by including it in the contract documentation. The contractor should thoroughly familiarise himself with the requirements of the ESMP and appoint an environmental Control Officer (ECO) to oversee the implementation of the ESMP on a day-to-day basis.

Parties responsible for transgression of this ESMP should be held responsible for any rehabilitation that may need to be undertaken. Parties responsible for environmental degradation through irresponsible behaviour/negligence should receive penalties.

# **APPENDIX A**

## **Curriculum Vitae of Environmental Assessment Practitioner**

# **APPENDIX B**

## **Hydrogeological Specialist Report**



## **APPENDIX C**

### **Background Information Document Distribution List**

## **APPENDIX D**

### **Engineering Designs for the Fuel Station – City of Windhoek Fleet Management Division**