APP-003027

CONSTRUCTION AND OPERATIONS OF A CONSUMER FUEL INSTALLATION FOR THE NAMIBIAN POLICE FORCE IN ONGHA, OHANGWENA REGION

ENVIRONMENTAL ASSESSMENT SCOPING REPORT

Assessed by:

Assessed for:

Ministry of Home Affairs, Immigration, Safety and Security

October 2021

Project:	**CONSTRUCTION AND OPERATIONS OF A CONSUMER FUEL INSTALLATION FOR THE NAMIBIAN POLICE FORCE IN ONGHA, OHANGWENA REGION**	
Report: Version/Date:	Draft October 2021	
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Report Approval	2021/10/25 Ongha Police Consumer Installation EIA **André Faul** Conservation Ecologist	

I _____ acting as a representative of Ministry of Home Affairs, Immigration, Safety and Security hereby confirm that the project description contained in this report is a true reflection of the information which the Proponent provided to Geo Pollution Technologies. All material information in the possession of the proponent that reasonably has or may have the potential of influencing any decision or the objectivity of this assessment is fairly represented in this report and the report is hereby approved.

Signed at _____ on the _____ day of _____ 2021.

EXECUTIVE DIRECTOR
2021 -10- 28
Ministry of Home Affairs, Immigration, Safety and Security

_____

Ministry of Home Affairs, Immigration, Safety and Security

EXECUTIVE SUMMARY

The Ministry of Home Affairs, Immigration, Safety and Security commissioned the construction of a new police station in Ongha. The facility is being developed on the corner of the B1 Trunk Road and D3638 District Road. A consumer fuel installation is proposed to from part of the police station in order to support operations of the Namibian Police Force (NAMPOL) by supplying fuel to the NAMPOL fleet operational in the area. Diesel and unleaded petrol will be supplied from two 30 m^3 belowground storage tanks. General operations will involve the receipt of fuel from road tankers, dispensing fuel to fleet vehicles, operations of related infrastructure and day to day administrative tasks.

The environmental assessment is conducted to determine all environmental, safety, health and socio-economic impacts associated with the construction and operations of the consumer fuel installation. Relevant environmental data has been compiled by making use of secondary data and from a reconnaissance site visit. Potential environmental impacts and associated social impacts were identified and are addressed in this report.

Due to the nature of the proposed facility, limited impacts can be expected on the surrounding environment, see summary impacts table below. The facility is surrounded by mostly informal residential and business properties, but a fuel retail facility and some government offices are also present. The operations of the consumer fuel installation will play an important role in contributing to a reliable supply of fuel to the NAMPOL fleet vehicles operational in the area.

The major concerns related to the construction and operations of the facility are that of potential groundwater, surface water and soil contamination and the possibility of fire. This will however be limited by adherence to South African National Standards for fuel storage and Material Safety Data Sheet instructions. Furthermore, noise pollution should meet the minimum requirements of the World Health Organisation standards. By appointing local contractors and employees and implementing educational programs the positive socio-economic impacts can be maximised while mitigating any negative impacts. It is recommended that environmental performance be monitored regularly to ensure regulatory compliance and that corrective measures be taken if necessary.

The environmental management plan included in Section 10 of this document should be used as an on-site reference document during all phases (planning, construction (care and maintenance), operations and decommissioning) of the facility. All monitoring and records kept should be included in a report to ensure compliance with the environmental management plan. Parties responsible for transgression of the environmental management plan should be held responsible for any rehabilitation that may need to be undertaken. A Health, Safety, Environment and Quality policy as well as Environmental Policy could be used in conjunction with the environmental management plan. Operators and responsible personnel must be taught the contents of these documents. Municipal or national regulations and guidelines must be adhered to and monitored regularly as outlined in the environmental management plan.

Impact Summary Class Values

Impact Category	Impact Type	Construction		Operations	
	Positive Rating Scale: Maximum Value	5		5	
	Negative Rating Scale: Maximum Value		-5		-5
EO	Skills Transfer, Employment and Income	2		2	
SC	Demographic Profile and Community Health		-1		-1
EO	Fuel Supply			2	
SC	Traffic		-2		-2
SC	Health, Safety and Security		-2		-2
PC	Fire		-2		-2
PC	Air Quality		-1		-1
PC	Noise		-1		-1
PC	Waste Production		-2		-2
BE	Ecosystem and Biodiversity Impact		-1		-1
PC/BE	Groundwater, Surface Water and Soil Contamination		-2		-2
SC	Visual Impact		-1		-1
PC/SC	Impacts on Utilities, Infrastructure and Seabed Scouring		-3		-2
PC	Cumulative Impact		-3		-3

BE = Biological/Ecological EO = Economical/Operational PC = Physical/Chemical SC = Sociological/Cultural

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF PHOTOS

LIST OF TABLES

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BE	Biological/Ecological
DEA	Directorate of Environmental Affairs
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EMS	Environmental Management System
EO	Economic/Operational
ES	Environmental Classification
GPT	Geo Pollution Technologies
HIV	Human Immunodeficiency Virus
IAPs	Interested and Affected Parties
IUCN	International Union for Conservation of Nature
LNAPL	Light Non-Aqueous Phase Liquids
m/s	Meter per second
mbs	Meters below surface
MEFT	Ministry of Environment, Forestry and Tourism
mm/a	Millimetres per annum
NAMPOL	Namibian Police Force
MHAISS	Ministry of Home Affairs, Immigration, Safety and Security
MSDS	Material Safety Data Sheet
PC	Physical/Chemical
PPE	Personal Protective Equipment
ppm	Parts per million
SANS	South African National Standards
SC	Sociological/Cultural
UNCCD	United Nations Convention to Combat Desertification
UTS	Underground storage tank
WHO	World Health Organization

GLOSSARY OF TERMS

Alternatives - A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Assessment - The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.

Competent Authority - means a body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.

Construction - means the building, erection or modification of a facility, structure or infrastructure that is necessary for the undertaking of an activity, including the modification, alteration, upgrading or decommissioning of such facility, structure or infrastructure.

Cumulative Impacts - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".

Environmental Impact Assessment (EIA) - process of assessment of the effects of a development on the environment.

Environmental Management Plan (EMP) - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Environmental Management System (EMS) - An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, PR productivity and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases efficiency and focuses on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies usually become more competitive.

Evaluation – means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.

Hazard - Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.

Interested and Affected Party (IAP) - any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an

activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment, Forestry & Tourism.

Public - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Scoping Process - process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

Significant Effect/Impact - means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Stakeholder Engagement - The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".

Stakeholders - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (IAPs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

Sustainable Development - "Development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs and aspirations" – the definition of the World Commission on Environment and Development (1987). "Improving the quality of human life while living within the carrying capacity of supporting ecosystems" – the definition given in a publication called "Caring for the Earth: A Strategy for Sustainable Living" by the International Union for Conservation of Nature (IUCN), the United Nations Environment Programme and the World Wide Fund for Nature (1991).

1 BACKGROUND AND INTRODUCTION

The Ministry of Home Affairs, Immigration, Safety and Security constructed a new police station in Ongha, Ohangwena Region. The police station is located at the junction of the B1 Trunk Road and the D3638 District Road (Figure 2-1). A consumer installation is proposed for the development and will supply fuel to the Namibian Police Force (NAMPOL) fleet vehicles operational in the area. Establishment of the consumer fuel installation will involve:

- Site clearing, preparation and earthworks;
- Civil works required for new infrastructure;
- Construction of infrastructure for the consumer installation, including driveway and refuelling area, underground tanks, pumps, reticulation and buildings;
- Installation of associated utilities;
- Installation of spill control infrastructure.

Operations of the consumer fuel installation will include:

- Filling of the storage tanks with fuel from road transport tankers;
- Dispensing of fuel to NAMPOL fleet;
- Tank dips and fuel volume reconciliation;
- General operational activities and maintenance procedures associated with the consumer installation.

A risk assessment was undertaken to determine the potential impact of the construction, operational and possible decommissioning phases of the project on the environment. The environment being defined in the Environmental Assessment Policy and Environmental Management Act as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".

The environmental assessment was conducted to apply for an environmental clearance certificate in compliance with Namibia's Environmental Management Act (EMA) (Act No 7 of 2007).

Project Justification – The Ministry of Home Affairs, Immigration, Safety and Security performs an important task by ensuring residents and operations in and around Ongha are kept safe and the law is adhered to. This is achieved largely through NAMPOL, who in turn relies on a secure and reliable supply of fuel for fleet vehicles used to conduct day to day operations. The construction and operations of the consumer fuel installation will provide a safe and reliable supply of fuel to the NAMPOL fleet operating from the new police station in Ongha.

Benefits of the consumer fuel installation include:

- Reliable supply of fuel to the NAMPOL fleet,
- Employment and skills development, especially during the construction phase,
- A well-functioning police force plays an important role in providing a secure and safe environment. This indirectly supports growth in the town by creating a favourable environment for potential additional investments and development.

2 SCOPE

The scope of the environmental assessment is to:

1. Determine the potential environmental impacts emanating from the construction, operational and possible decommissioning activities of the consumer fuel installation,
2. Identify a range of management actions which could mitigate the potential adverse impacts to acceptable levels,
3. Comply with the requirements of the EMA,
4. Provide sufficient information to the relevant competent authority and Ministry of Environment, Forestry and Tourism (MEFT) to make an informed decision regarding the construction, operations and possible decommissioning of the facility.

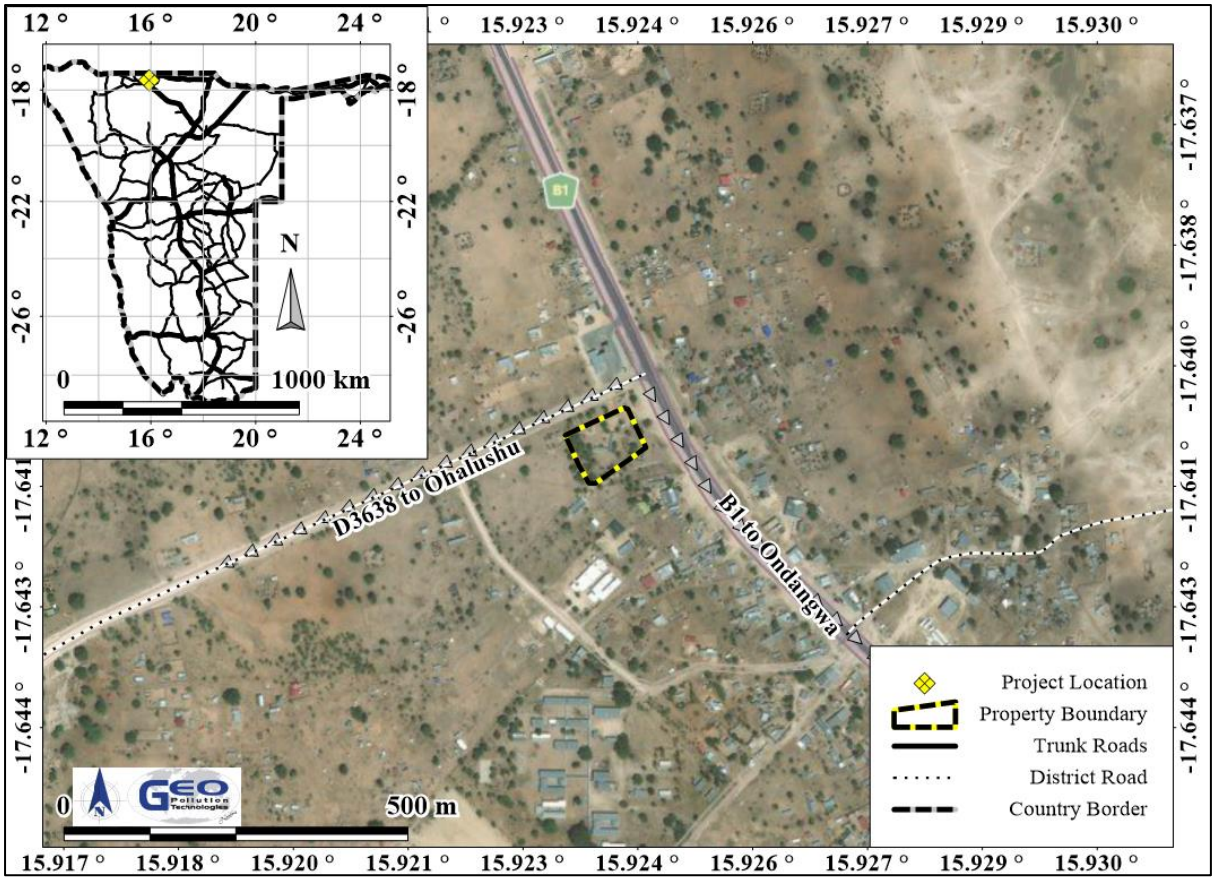


Figure 2-1. Project location

3 METHODOLOGY

The following methods were used to investigate the potential impacts on the social and natural environment due to the construction and operations of the facility:

1. Baseline information about the site and its surroundings was obtained from primary information, existing secondary information as well as from a reconnaissance site visit.
2. As part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted about their views, comments and opinions all of which are presented in this report.
3. Potential environmental impacts emanating from the construction, operations and decommissioning of the facility were determined and possible enhancement measures were listed for positive impacts while mitigation / preventative measures were provided for negative impacts.
4. As per the findings of this scoping report, an environmental management plan (EMP) was incorporated into this report to be submitted to the MEFT.

4 FACILITY OPERATIONS AND RELATED ACTIVITIES

It is anticipated that the construction of the consumer fuel installation will commence once an environmental clearance certificate has been issued by the MEFT and the various additional permits and licences, such as per the Ministry of Mines and Energy, have been issued by the various regulatory bodies.

4.1 PLANNED INFRASTRUCTURE

The proposed consumer fuel installation will from part the operations of the new police station and supply fuel to the NAMPOL fleet operational in the area.

The facility will have a driveway leading to a pump island with two dispensing pumps. Each pump will dispense both diesel and unleaded petrol. Two vented, underground storage tanks (UST) of 30 m^3 each will be installed for the storage of 50 ppm diesel and unleaded petrol respectively. The filler points for the tanks will be located on the pump island. Underground pipes will reticulate diesel and petrol from the filler points to the tanks and from the tanks to the pumps.

The facility will adhere to all Namibian legislation and to relevant South African National Standards (SANS) related to fuel handling and storage, ensuring safety and environmental protection. The refuelling surface will be surfaced with concrete spill control slabs with drains connected to an oil water separator. The oil water separator overflow will be connected to the municipal sewer. Safety systems will include emergency shutoff systems, channelling of storm water in order to prevent its contamination with hydrocarbons, and firefighting equipment. Fire extinguishers and emergency stops will be placed throughout the facility and within easy reach of attendants. Additional infrastructure on site will include ablution facilities and a staff locker room already present on site.

The proposed layout of the installation can be seen inFigure 4-1 and Figure 4-2. Minor changes may however be made to the layout during finalisation of the design.

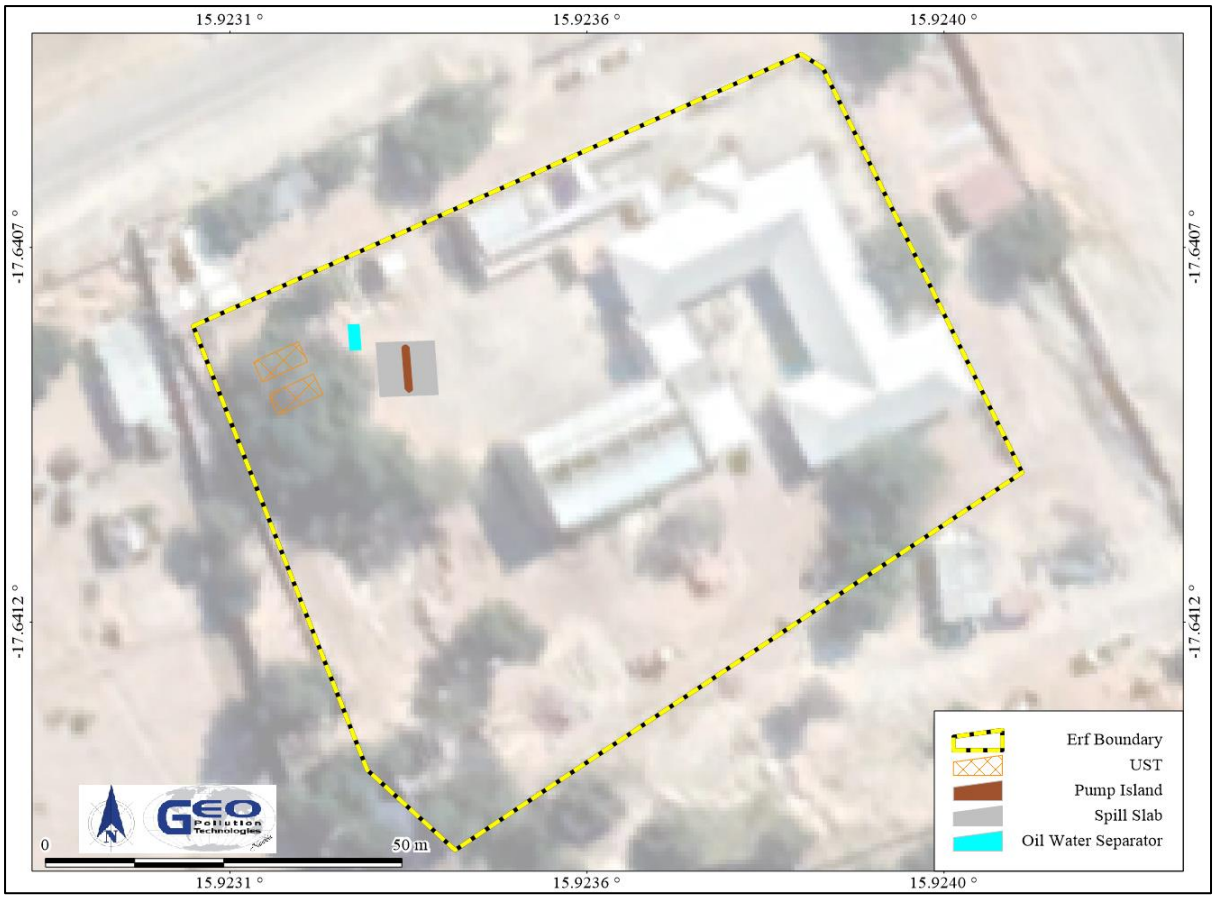


Figure 4-1. Consumer fuel installation location

4.2 OPERATIONAL ACTIVITIES

Unleaded petrol and 50 ppm diesel will be received from tanker trucks and stored in the underground storage tanks. Fuel will be dispensed to the NAMPOL fleet via the dispensers on the pump island by authorised employees, as required. Employees will be provided with in-house training for refuelling and operations. Regular tank dips and reconciliation of fuel volumes will be performed to detect any possible leaks.

Photo 4-1. View of entrance to site

Photo 4-2. Police station

Photo 4-3. Consumer installation site (photo 1)

Photo 4-4. Consumer installation site (photo 2)

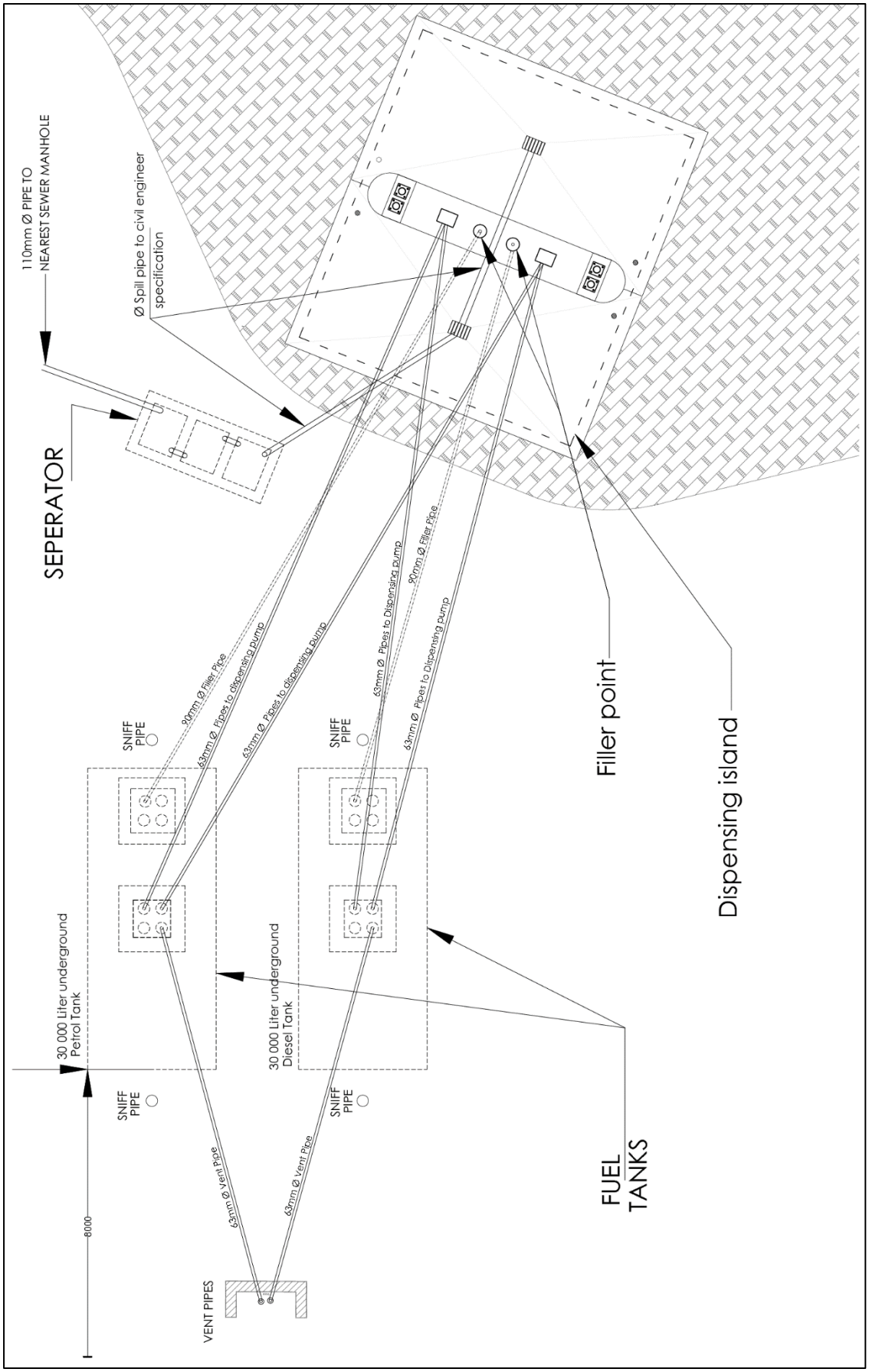


Figure 4-2. Fuel installation layout

5 ALTERNATIVES TO THE PROPOSED FACILITY

Since the facility must adhere to SANS standards or better, no alternatives in design parameters adhering to SANS is proposed. From an environmental perspective, the environmental assessment did not find any reason why the facility may not continue at the initially proposed site, on condition that it complies with SANS standards or better, as prescribed by Namibian legislation.

6 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an environmental assessment, as per the Namibian legislation. The legislation and standards provided in Table 6-1 to Table 6-3 govern the environmental assessment process in Namibia and/or are relevant to the consumer fuel installation.

Table 6-1. Namibian law applicable to the consumer fuel installation

Law	Key Aspects
The Namibian Constitution	♦ Promote the welfare of people ♦ Incorporates a high level of environmental protection ♦ Incorporates international agreements as part of Namibian law
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	♦ Defines the environment ♦ Promote sustainable management of the environment and the use of natural resources ♦ Provide a process of assessment and control of activities with possible significant effects on the environment
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	♦ Commencement of the Environmental Management Act ♦ List activities that requires an environmental clearance certificate ♦ Provide Environmental Impact Assessment Regulations
Petroleum Products and Energy Act Act No. 13 of 1990, Government Notice No. 45 of 1990	♦ Regulates petroleum industry ♦ Makes provision for impact assessment ♦ Petroleum Products Regulations (Government Notice No. 155 of 2000) o Prescribes South African National Standards (SANS) or equivalents for construction, operation and decommissioning of petroleum facilities (refer to Government Notice No. 21 of 2002)
The Water Act Act No. 54 of 1956	♦ Remains in force until the new Water Resources Management Act comes into force ♦ Defines the interests of the state in protecting water resources ♦ Controls the disposal of effluent ♦ Numerous amendments
Water Resources Management Act Act No. 11 of 2013	♦ Provide for management, protection, development, use and conservation of water resources ♦ Prevention of water pollution and assignment of liability ♦ Not in force yet
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	♦ Define the powers, duties and functions of local authority councils ♦ Regulates discharges into sewers

Law	Key Aspects
Public Health Act Act No. 36 of 1919	♦ Provides for the protection of health of all people
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	♦ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters ♦ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	♦ Provides for Labour Law and the protection and safety of employees ♦ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997)
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	♦ Governs the control of noxious or offensive gases ♦ Prohibits scheduled process without a registration certificate in a controlled area ♦ Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process
Hazardous Substances Ordinance Ordinance No. 14 of 1974	♦ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export ♦ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings
Pollution Control and Waste Management Bill (draft document)	♦ Not in force yet ♦ Provides for prevention and control of pollution and waste ♦ Provides for procedures to be followed for licence applications

Table 6-2. Relevant multilateral environmental agreements for Namibia and the development

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972.	♦ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.
1985 Vienna Convention for the Protection of the Ozone Layer	♦ Aims to protect human health and the environment against adverse effects from modification of the Ozone Layer are considered. ♦ Adopted to regulate levels of greenhouse gas concentration in the atmosphere.
United Nations Framework Convention on Climate Change (UNFCCC)	♦ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention.
Convention on Biological Diversity, Rio de Janeiro, 1992	♦ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.

Table 6-3. Standards or codes of practise

Standard or Code	Key Aspects
South African National Standards (SANS)	♦ The Petroleum Products and Energy Act prescribes SANS standards for the construction, operations and demolition of petroleum facilities ♦ SANS 10089-3:2010 is specifically aimed at storage and distribution of petroleum products at fuel retail facilities and consumer installations o Provide requirements for spill control infrastructure

The project is listed as an activity requiring an environmental clearance certificate as per the following points from Section 9 of Government Notice No. 29 of 2012:

- 9.1 "The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974."
- 9.2 "Any process or activity which requires a permit, licence or other form of authorisation, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, licence or authorisation or which requires a new permit, licence or authorisation in terms of a law governing the generation or release of emissions, pollution, effluent or waste."
- 9.4 "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."
- 9.5 "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."

7 ENVIRONMENTAL CHARACTERISTICS

This section lists pertinent environmental characteristics of the study area and provides a statement on the potential environmental impacts on each.

7.1 LOCALITY AND SURROUNDING LAND USE

The consumer fuel installation will form part of the new police station in the settlement of Ongha, Ohangwena Region (17.64087°S, 15.92330°E) (Figure 2-1). The police station is situated within a mixture of business, institutional and informal developments. North of the site and opposite the D3638 road, is a fuel retail facility, east and south are informal traders southwest and west are an office of the Ministry of Environment, Forestry and Tourism and informal residences. There are no heritage or cultural sites located on or in close proximity to the site.

Photo 7-1. Northern neighbour

Photo 7-2. D3638 road

Implications and Impacts

The police station will aid in increasing safety in the area. No significant land use impact is expected on nearby establishments from the operations of the related consumer fuel installation. The Consumer fuel installation will not supply products to the general public such as the fuel retail facility.

7.2 CLIMATE

The general lack of functioning weather stations in Namibia, in especially rural areas, limits the availability of long term, true weather data. As a best possible workaround, long term climate data was obtained from the Atlas of Namibia Project (2002) and the CHIRPS-2 database (Climate Hazards Group Infra-Red Precipitation with Station data version 2) (Funk et al., 2015), see Table 7-1, Table 7-2 and Figure 7-1.

Atlas of Namibia Project data was compiled from almost 300 rainfall stations across Namibia. The data was contoured in 50 mm intervals prior to 1999 for variable length data sets. The CHIRPS-2 dataset consist of long term rainfall data (1981 to near-present) obtained from satellite imagery and in-situ station data. The resultant dataset provides a reasonably well represented overview of the climatic conditions and historic weather conditions of a general area. True values for single, site specific metereological events may however differ to some degree.

The project area is situated in a hot semi-arid (steppe) climate area. Days are mostly warm with very hot days during the summer months. The rainy season normally starts in October and last until April, peaking in January, February and March. Heavier rainfall (single day events) occur between November and April, with a single event of 59.4 mm in February (last 39 years data) being the highest. The average annual evaporation rate remains high at 2,800 to 3,000 mm/a. Table 7-1 contain a summary of the climate conditions for the area.

Using Chirps-2 data, the average annual rainfall for the last 39 years was calculated as 423 mm/a, with a coefficient of variance of 27 % (Table 7-2). Both the average rainfall and coefficient of variance are slightly lower than the Atlas of Namibia Project data of Table 7-1. Daily and seasonal rainfall data (Funk et al., 2015) is presented in Figure 7-1. Seasonal (July to June) total rainfall, centred on the average line for the last 39 years, is presented, with the daily total rainfall and the seasonal cumulative rainfall. From the figure it is clear that since 2012 the area received below average annual rainfall.

Table 7-1. Summary of climate climatic conditions (Atlas of Namibia Project, 2002)

Average annual rainfall (mm/a)	450-500
Variation in annual rainfall (%)	30-40
Average annual evaporation (mm/a)	2,800-3,000
Water deficit (mm/a)	1,501-,700
Temperature (°C)	>22

Table 7-2. Rainfall statistics (Funk et al., 2015)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minimum (mm)	15.8	26.5	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum (mm)	193.8	267.1	154.3	90.1	3.4	0.2	0.0	0.0	3.4	33.6	85.7	158.6
Average (mm)	93.9	100.3	81.2	22.3	0.4	0.0	0.0	0.0	0.4	8.5	39.8	65.3
Variability (%)	49.0	55.0	53.0	99.0	231.0	624.0	624.0	0.0	227.0	91.0	56.0	60.0
Daily maximum (mm)	37.6	59.4	45.6	36.5	3.4	0.1	0.0	0.0	2.1	10.2	38.9	36.9
Average rain days	13	13	10	3	0	0	0	0	0	2	6	10
Season July - June average: 423 mm				**Season coefficient of variation: 27 %**								
Data range	1981-Jul-01	to	2020-Jun-30							Lat: -17.6409°S Long: 15.9233°E		

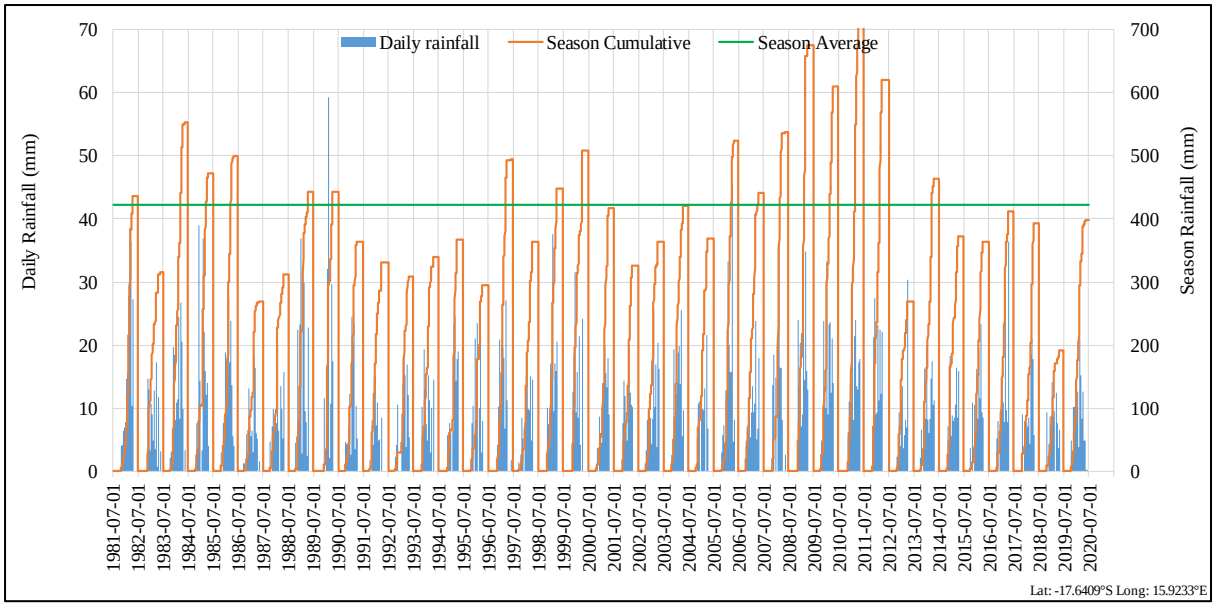


Figure 7-1. Daily and seasonal rainfall (Funk et al., 2015)

Implications and Impacts

Water is a scarce and valuable resource in Namibia. Rainfall events are often thunderstorms with heavy rainfall that can occur in short periods of time. Rainfall in the area is above the Namibian average, but water remains a vulnerable resource. Due to the flat landscape heavy rainfall can lead to pooling, but sandy soils will lead to rapid infiltration. Spilled hydrocarbons may thus easily enter the environment if not cleaned immediately.

7.3 TOPOGRAPHY AND DRAINAGE

The landscape is classified as an Oshana system. A low gradient anatomising to braided fluvial system, which periodically floods, is present in the area. The site is located within the Cuvelai Basin which drains into the Etosha Pan. Local topography is flat with poor surface flow channel development (see Figure 7-2 and Figure 7-3). The area falls within the Kal9-3 agro ecological zone which is a Kalahari Sands Plateau with an Oshana flood system. Rainwater would mostly pool and infiltrate into the sandy soils. No permanent surface water is present nearby, but water does collect in depressions (Oshanas) in the general area and shallow perched aquifers are typically formed by infiltrating water. Local communities are often reliant on these water bodies and perched aquifers for livestock and own use. Flooding during good rainy seasons is common in the general area. Such flood prone areas are however situated 2 km west of the project site.

Implications and Impacts

The project site is not prone to flooding. Due to the flat landscape heavy rainfall can lead to pooling, but sandy soils will lead to rapid infiltration. Spilled hydrocarbons may thus easily enter the environment if not cleaned immediately.

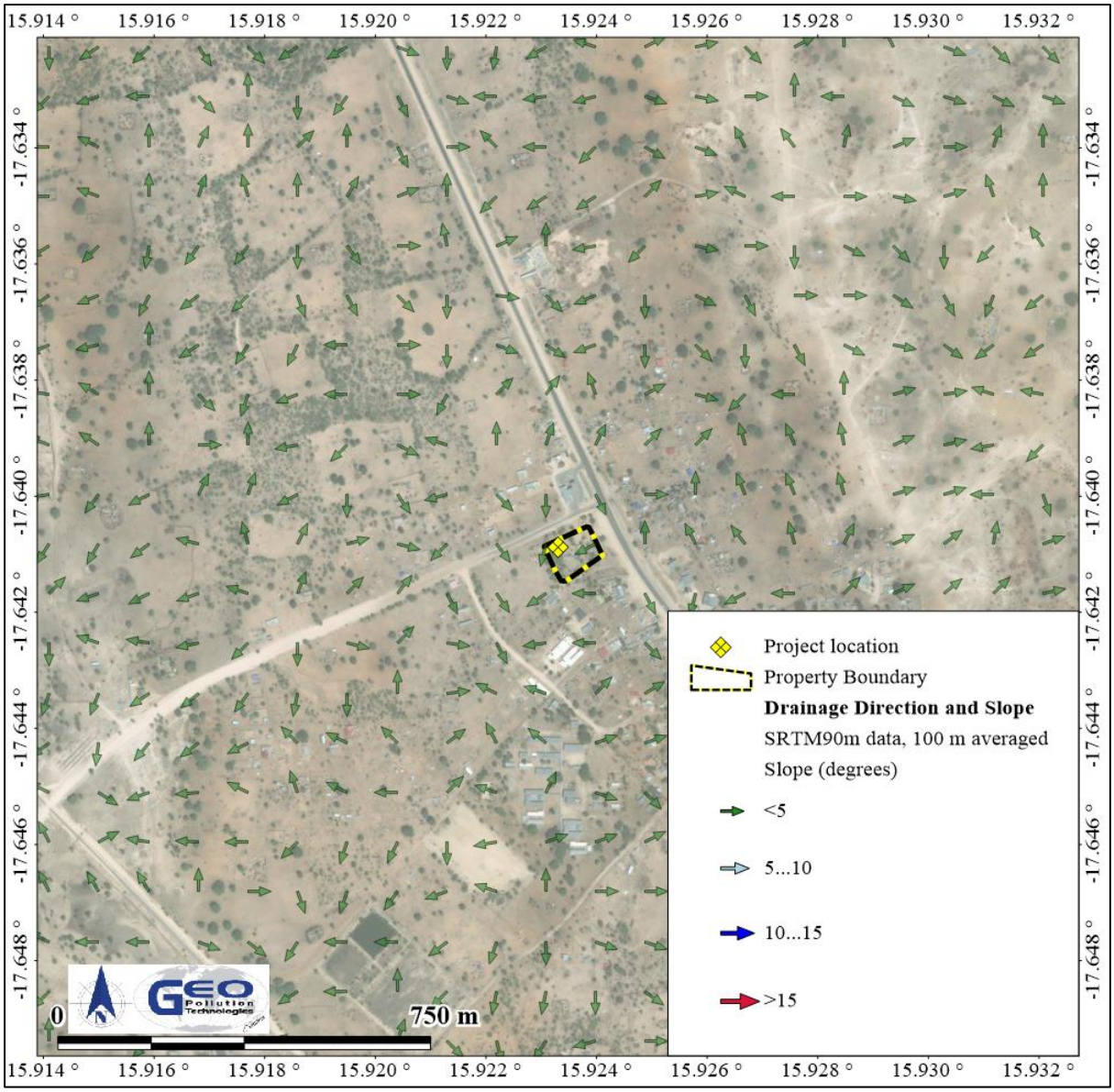


Figure 7-2. Drainage direction and slope

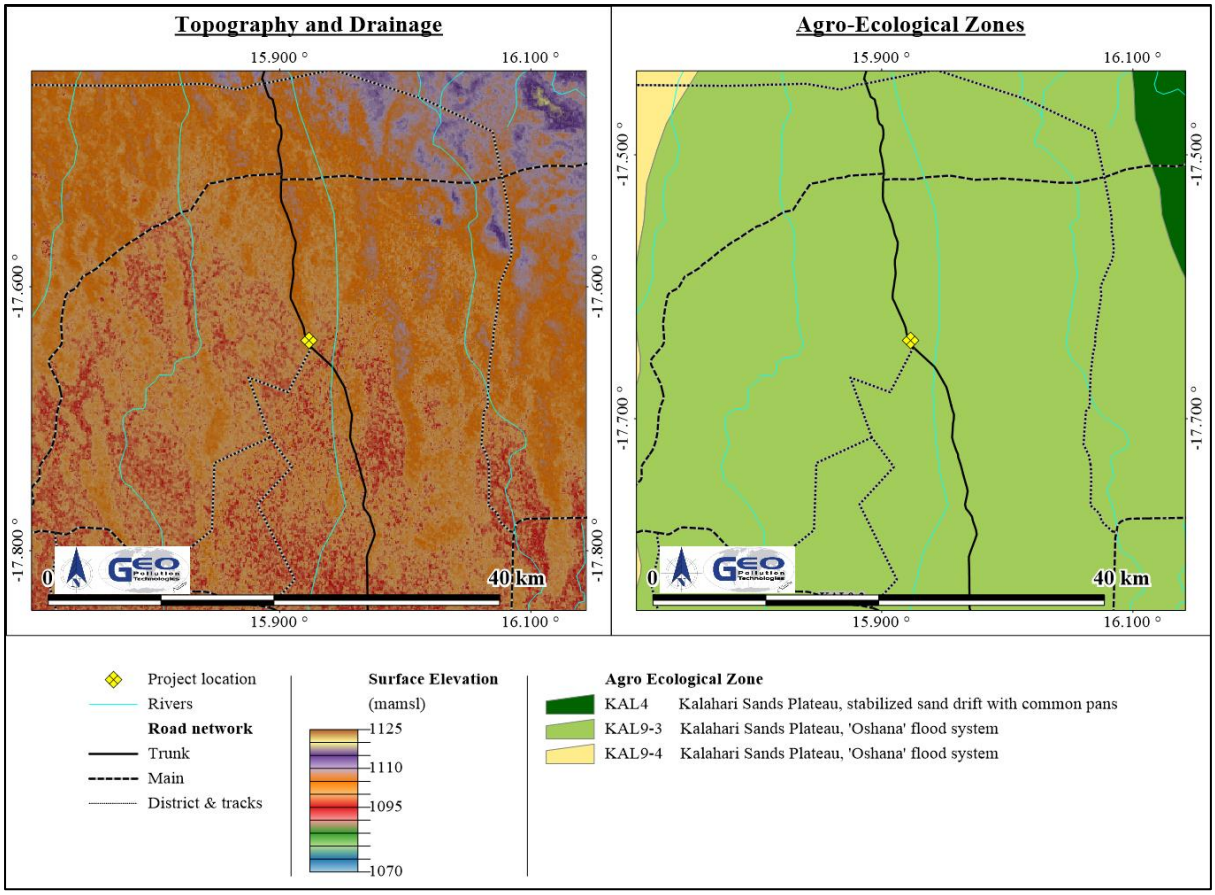


Figure 7-3. Surface elevation and agro-ecological zones

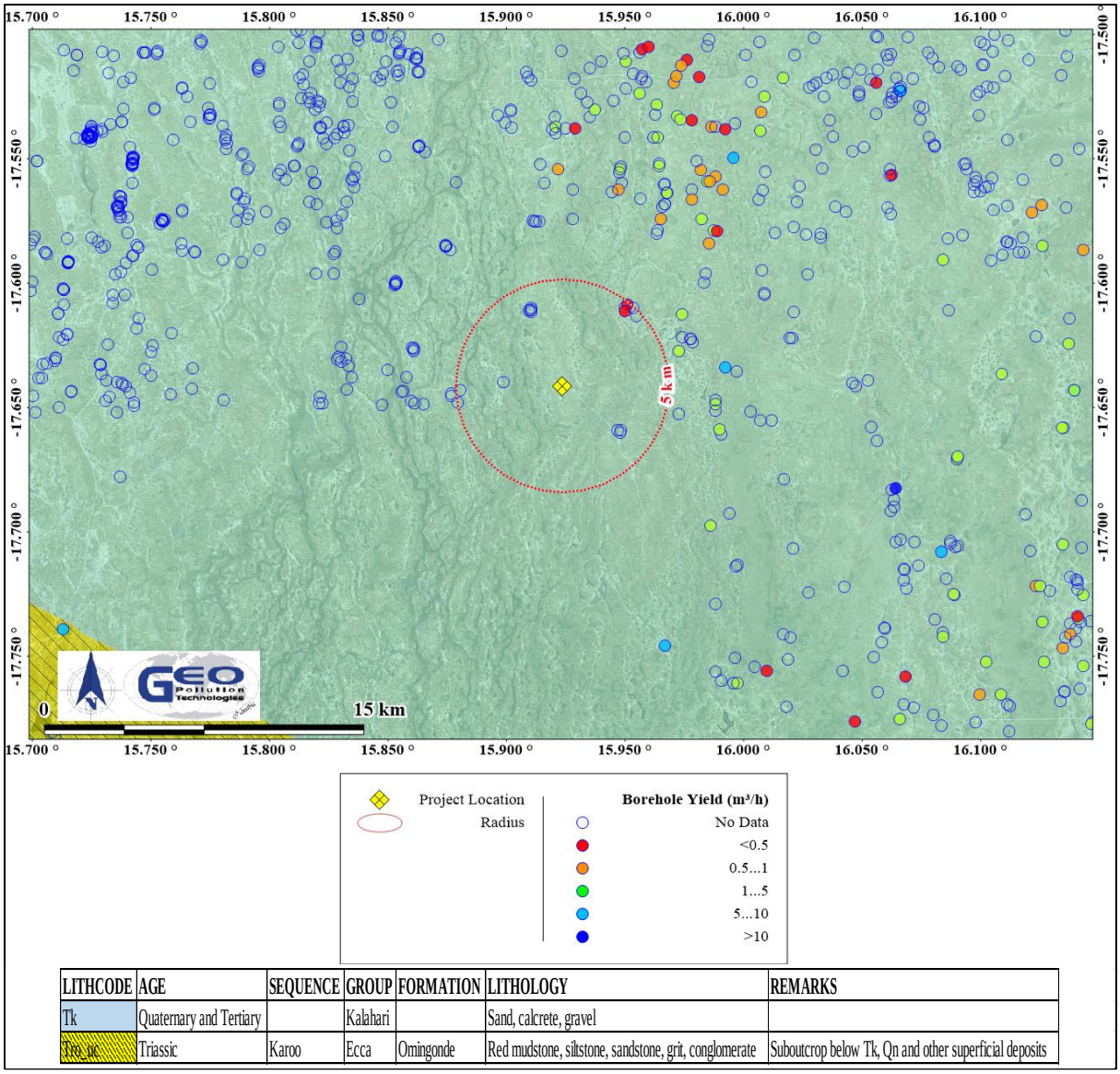
7.4 GEOLOGY AND HYDROGEOLOGY

The dominant surface soil cover in the area is haplic Calcisols (Figure 7-4 and Figure 7-5). Soil cover at the site is from the Kalahari Group (Tk), consisting of sand, calcrete and/or gravel of Quaternary and Tertiary age. The Kalahari Group consists mainly of unconsolidated formations, but some degree of consolidation may be present. Red mudstone, siltstone, sandstone, grit and conglomerate of the Triassic Age – Omingonde Formation of the Ecca Group underlay the Kalahari Group. Groundwater flow would be mostly through primary porosity but flow along fractures, faults (secondary porosity) and other geological structures present within the formations might take place where consolidated layers are present.

Subsurface water in the area is utilized, but no boreholes are present in close proximity to the project site. Groundwater is from the Owambo Basin which is not a water controlled area, however groundwater remains the property of the Government Republic of Namibia.

Implications and Impacts

Groundwater is utilised in the area. Pollution of the groundwater is prohibited. Spill control structures installed and maintained to SANS specifications or better would successfully prevent pollution of groundwater, surface water or soil.



LITHCODE	AGE	SEQUENCE	GROUP	FORMATION	LITHOLOGY	REMARKS
Tk	Quaternary and Tertiary		Kalahari		Sand, calcrete, gravel	
TRo_uc	Triassic	Karoo	Ecca	Omingonde	Red mudstone, siltstone, sandstone, grit, conglomerate	Suboutcrop below Tk, Qn and other superficial deposits

Figure 7-4. Geology and hydrogeology

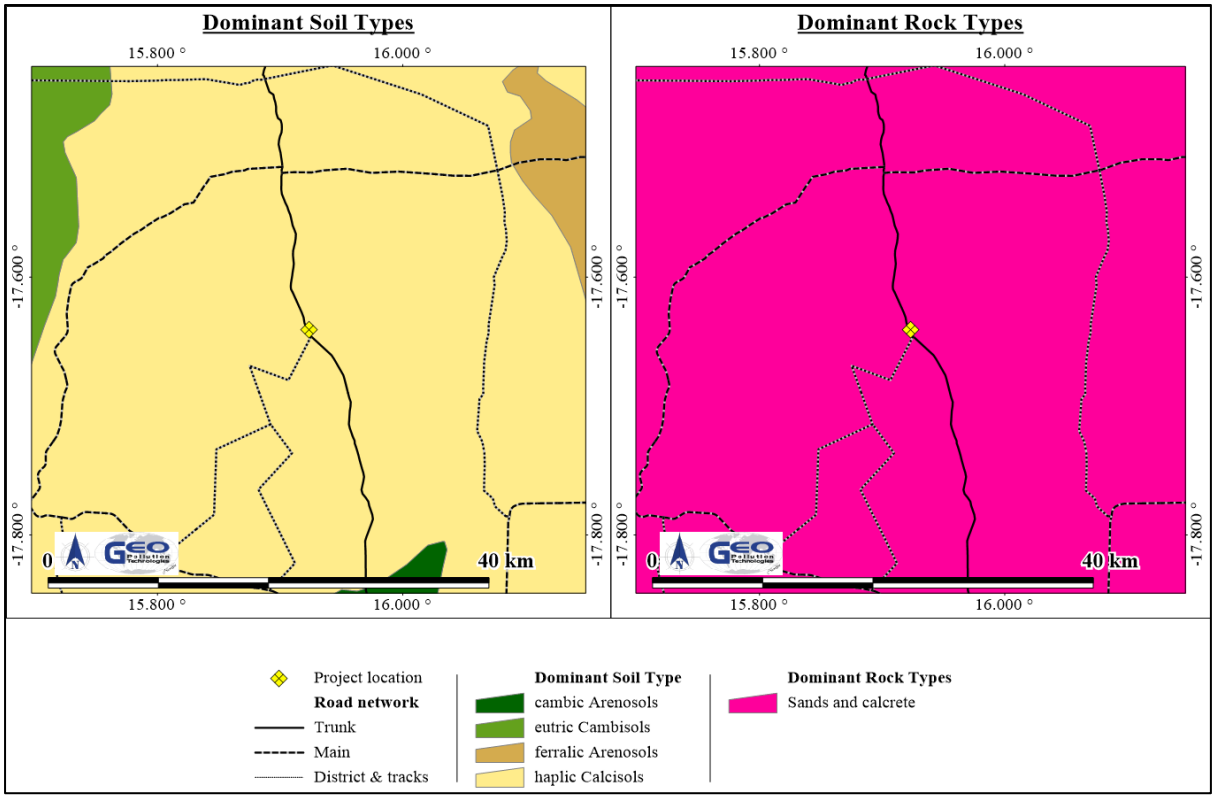


Figure 7-5. Dominant soil and rock types of the area

7.5 PUBLIC WATER SUPPLY

Public water supply in the Ohangwena Region is reliant on groundwater resources. Development of reliable potable water supply infrastructure is a challenge in the Region, but is one of the key focus areas for the next five years (https://ohangwenarc.gov.na/).

Implications and Impacts

The installation is not expected to have an impact on public water supply. Furthermore it must adhere to SANS standards which should successfully prevent any spills or leaks.

7.6 FAUNA AND FLORA

The general area forms part of the Savanna Biome with a Cuvelai drainage vegetation type and woodland structure (Atlas of Namibia Project, 2002). The diversity of higher plants is considered to be low with between 50 and a 100 species. General vegetation characteristics are presented in Table 7-3. The site is located within a settlement area and is thus mostly disturbed. Other than some trees (*Combretum* sp.) on site, it is mostly devoid of vegetation. No larger animals were visible on site during the site visit. For the larger area some data on animal diversity are provided in Table 7-4.

Table 7-3 General vegetation characteristics of the area

Biome	Savanna
Vegetation type	Cuvelai drainage
Vegetation structure type	Woodland
Diversity of higher plants	Low (Diversity rank = 6 [1 to 7 representing highest to lowest diversity])
Number of plant species	50-100
Percentage tree cover	2-10
Tree height (m)	10-20

Percentage shrub cover	26-50
Shrub height (m)	1-5
Percentage dwarf shrub cover	2-10
Dwarf shrub height (m)	< 0.5
Percentage grass cover	26-50
Grass height (m)	0.5-1
Dominant plant species 1	*Hyphaena petersiana*
Dominant plant species 2	*Sclerocarya birrea*
Dominant plant species 3	*Ficus sycamores*
Dominant plant species 4	*Diospiros mespiliformis*
Dominant plant species 5	*Adansonia digitata*

Table 7-4. Animal diversity of the area

Mammal Diversity	61 - 75 Species
Rodent Diversity	24 - 27 Species
Bird Diversity	111-140 Species
Reptile Diversity	51 - 60 Species
Snake Diversity	25 - 29 Species
Lizard Diversity	20 - 23 Species
Frog Diversity	12 - 15 Species
Termite Diversity	10 - 12 Genera
Scorpion Diversity	6 - 9 Species

Implications and Impacts

The proposed installation is located within an already disturbed area. Thus, no immediate threat to biodiversity in the area is expected, however, uncontrolled pollution may and can cause damage to any biodiversity surrounding the site.

7.7 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

Ongha is situated in the Endola Constituency of the Ohangwena Region. The Endola Constituency has a population size of 25,591 which is just more than 10% of the Ohangwena Region's population (Namibia Statistics Agency, 2011). Ongha is located on the B1 Highway that links Namibia with Angola via Oshikango. Economic activities relate mostly to businesses within the area and around the site, many of which are informal in nature.

Table 7-5. Demographic Characteristics of the Endola Constituency, the Ohangwena Region and Nationally (Namibia Statistics Agency, 2011)

	Endola Constituency	**Ohangwena Region**	**Namibia**
Population (Males)	11,481	112,130	1,021,912
Population (Females)	14,110	133,316	1,091,165
Population (Total)	25,591	245,446	2,113,077
Population Density (persons/km^2)	78.1	22.9	
Unemployment (15+ years)	43%	43%	33.8%

Implications and Impacts

The facility will provide some employment to people from the area during the construction phase. Some skills development and training will also benefit employees during the construction and operational phase.

7.8 HERITAGE, CULTURAL AND ARCHAEOLOGICAL ASPECTS

There are no churches, mosques or related buildings in close proximity to the site. No known archaeological and heritage resources have been noted in the vicinity. No other structures, sites or spheres of heritage of cultural significance was determined to be in close proximity to the site.

8 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables interested and affected parties (IAPs) e.g. neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with the facility and to identify additional issues which they feel should be addressed in the environmental assessment.

Public participation notices were advertised twice in two weeks in the national papers The Namibian Sun and Die Republikein on 21 and 28 September 2021 respectively. A site notice was placed on site and notification letters delivered to neighbours. Some neighbours were not present on site at the time of the site visit and were e-mailed the notifications. The Ohangwena Regional Council were notified via e-mail and by fax. See Appendix A for proof of the public participation processes. No one registered as IAP for the project and no comments were received.

9 MAJOR IDENTIFIED IMPACTS

During the scoping exercise a number of potential environmental impacts have been identified. The following section provides a brief description of the most important of these impacts.

9.1 HYDROCARBON POLLUTION

This section describes the most pertinent pollution impacts that are expected from the facility and its operations. Groundwater and soil pollution from hydrocarbon products are major issues associated with the storage and handling of such products. Both forms of pollution are prohibited in Namibia.

When a release of hydrocarbon products takes place to the soil, the Light Non-Aqueous Phase Liquids (LNAPL) will infiltrate into the soil and start to migrate vertically. LNAPL transport in the subsurface environment occurs in several phases, including bulk liquid, dissolved, and vapour phases. Mechanisms that influence transport include the physicochemical properties of the specific compounds present such as density, vapour pressure, viscosity, and hydrophobicity, as well as the physical and chemical properties of the subsurface environment, including geology and hydrogeology. Hydrocarbon liquids are typically complex mixtures composed of numerous compounds, each with its own individual physicochemical and, therefore, transport properties.

If small volumes of spilled LNAPL enter the unsaturated zone (i.e. vadose zone), the LNAPL will flow through the central portion of the unsaturated pores until residual saturation is reached. A three-phase system consisting of water, LNAPL, and air is formed within the vadose zone. Infiltrating water dissolves the components within the LNAPL (e.g., benzene, xylene, and toluene) and transports them to the water table. These dissolved contaminants form a contaminated plume radiating from the area of the residual product. Many components found in LNAPL are volatile and can partition into soil air and be transported by molecular diffusion to other parts of the aquifer. As these vapours diffuse into adjoining soil areas, they may partition back into the water phase and transfer contamination over wider areas. If the soil surface is relatively impermeable, vapours will not diffuse across the surface boundary and concentrations of contaminants in the soil atmosphere may build up to equilibrium conditions. However, if the surface is not covered with an impermeable material, vapours may diffuse into the atmosphere.

If large volumes of LNAPL are spilled, the LNAPL flows through the pore space to the top of the capillary fringe of the water table. Dissolved components of the LNAPL precede the less soluble components and may change the wetting properties of the water, causing a reduction in the residual water content and a decrease in the height of the capillary fringe.

Since LNAPL are lighter than water, it will float on top of the capillary fringe. As the head formed by the infiltrating LNAPL increases, the water table is depressed and the LNAPL accumulate in the depression. If the source of the spilled LNAPL is removed or contained, LNAPL within the vadose zone continue to flow under the force of gravity until reaching residual saturation. As the LNAPL continue to enter the water table depression, it spread laterally on top of the capillary fringe. The draining of the upper portions of the vadose zone reduces the total head at the interface between the LNAPL and the groundwater, causing the water table to rebound slightly. The rebounding water displaces only a portion of the LNAPL because the LNAPL remain at residual saturation. Groundwater passing through the area of residual saturation dissolves constituents of the residual LNAPL, forming a contaminant plume. Water infiltrating from the surface also can dissolve the residual LNAPL and add to the contaminant load of the aquifer.

Decrease in the water table level from seasonal variations may lead to dropping of the pool of LNAPL. If the water table rises again, part of the LNAPL may be pushed up, but a portion remains at residual saturation below the new water table. Variations in the water table height, therefore, can spread LNAPL over a greater thickness of the aquifer, causing larger volumes of aquifer materials to be contaminated.

Hydrocarbon products do biodegrade in the subsurface, although the effectiveness of this process depends on subsurface conditions. The type of hydrocarbon product plays a further role in the duration of biodegradation, with the longer chain components taking much longer to biodegrade.

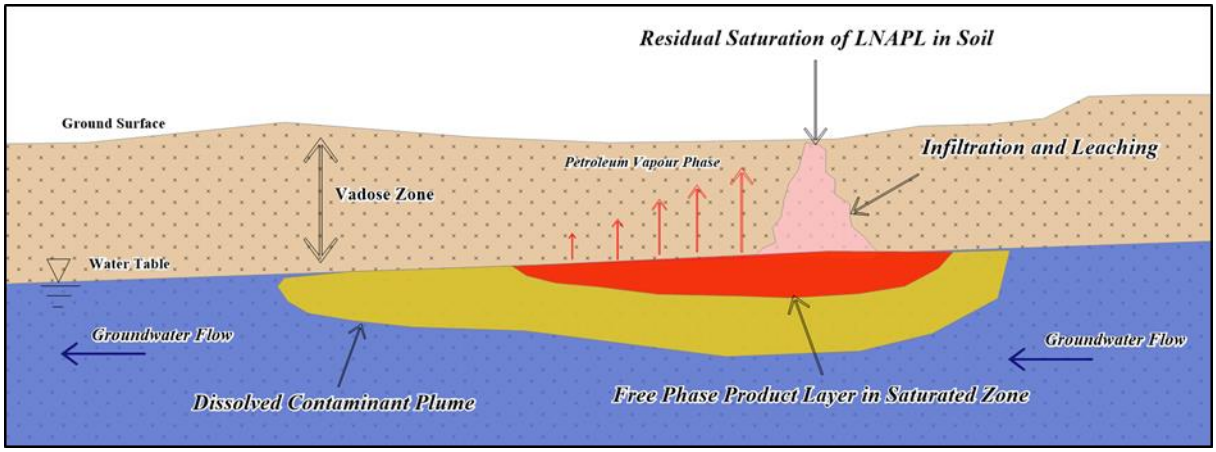


Figure 9-1. Conceptual LNAPL Release to the Vadose Zone

9.2 NOISE IMPACTS

Construction noise will be related to concrete mixing, excavations and vehicles accessing the site. Some noise will exist due to vehicles accessing the site for delivering and collecting fuel during operations.

9.3 TRAFFIC IMPACTS

During construction activities some traffic impacts can be expected in the street and vicinity of the facility as a result of heavy vehicles accessing the site. During operations, traffic flow may be impacted by trucks delivering fuel to the site, impacts are however expected to be minimal during operations as the installation will be situated within the premises of the police station. The facility will in return have a positive impact on traffic flow in other areas of the town.

9.4 FIRE

Diesel and unleaded petrol will be stored at the site in large volumes. Unleaded petrol is extremely flammable and if fuel is not handled according to Material Safety Data Sheet instructions and SANS requirements, a fire risk exist during the operational phase.

9.5 HEALTH

Hydrocarbons are carcinogenic and dermal contact and inhalation of fumes should be prevented.

9.6 SOCIO-ECONOMIC IMPACTS

Construction activities at the consumer fuel installation will provide employment opportunities and some training and skills development may ensue. The consumer fuel installation will indirectly contribute to sustaining the daily operations of the police station and thus contributing to public safety and security.

10 ASSESSMENT AND MANAGEMENT OF IMPACTS

The purpose of this section is to assess and identify the most pertinent environmental impacts that are expected from the construction, operational and potential decommissioning activities of the proposed consumer fuel installation. An EMP based on these identified impacts are also incorporated into this section.

For each impact an environmental classification was determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the following categories: Importance of condition (A1); Magnitude of Change (A2); Permanence (B1); Reversibility (B2); and Cumulative Nature (B3) (see Table 10-1)

Ranking formulas are then calculated as follow:

Environmental Classification = A1 x A2 x (B1 + B2 + B3)

The environmental classification of impacts is provided in Table 10-2.

The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

Table 10-1. Assessment criteria

Criteria	Score
Importance of condition (A1) – assessed against the spatial boundaries of human interest it will affect	
Importance to national/international interest	4
Important to regional/national interest	3
Important to areas immediately outside the local condition	2
Important only to the local condition	1
No importance	0
Magnitude of change/effect (A2) – measure of scale in terms of benefit / disbenefit of an impact or condition	
Major positive benefit	3
Significant improvement in status quo	2
Improvement in status quo	1
No change in status quo	0
Negative change in status quo	-1
Significant negative disbenefit or change	-2
Major disbenefit or change	-3
Permanence (B1) – defines whether the condition is permanent or temporary	

No change/Not applicable	1
Temporary	2
Permanent	3
Reversibility (B2) – defines whether the condition can be changed and is a measure of the control over the condition	
No change/Not applicable	1
Reversible	2
Irreversible	3
Cumulative (B3) – reflects whether the effect will be a single direct impact or will include cumulative impacts over time, or synergistic effect with other conditions. It is a means of judging the sustainability of the condition – not to be confused with the permanence criterion.	
Light or No Cumulative Character/Not applicable	1
Moderate Cumulative Character	2
Strong Cumulative Character	3

Table 10-2. Environmental classification (Pastakia 1998)

Environmental Classification	Class Value	Description of Class
72 to 108	5	Extremely positive impact
36 to 71	4	Significantly positive impact
19 to 35	3	Moderately positive impact
10 to 18	2	Less positive impact
1 to 9	1	Reduced positive impact
0	-0	No alteration
-1 to -9	-1	Reduced negative impact
-10 to -18	-2	Less negative impact
-19 to -35	-3	Moderately negative impact
-36 to -71	-4	Significantly negative impact
-72 to -108	-5	Extremely Negative Impact

10.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

The EMP provides management options to ensure impacts of the consumer fuel installation are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the operation of the facility. This section of the report can act as a stand-alone document. All personnel taking part in the operations of the facility should be made aware of the contents in this section, so as to plan the operations accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- to include all components of construction activities (including upgrades, maintenance, etc.) and operations of the facility;
- to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- to monitor and audit the performance of operational personnel in applying such controls; and
- to ensure that appropriate environmental training is provided to responsible operational personnel.

Various potential and definite impacts will emanate from the construction, operational and decommissioning phases. The majority of these impacts can be mitigated or prevented. The impacts, risk rating of impacts, as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the construction and operational phases are expected to mostly be of medium to low significance and can mostly be mitigated to have a low significance. The extent of impacts are mostly site specific to local and are not of a permanent nature. Due to the nature of the surrounding areas, cumulative impacts are possible and include groundwater contamination and traffic impacts.

10.1.1 Planning

During the phases of planning for construction, operations and decommissioning of the proposed consumer fuel installation, it is the responsibility of the proponent to ensure they are and remain compliant with all legal requirements. The proponent must also ensure that all required management measures are in place prior to and during all phases, to ensure potential impacts and risks are minimised. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the construction activities and operations of the project, are in place and remains valid. This includes the consumer installation certificate and local authority approvals.
- Ensure that design parameters, where required, is approved by relevant authorities prior to construction of the facility. This includes correct zoning of the property.
- Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- Make provisions to have a health, safety and environmental coordinator / environmental control officer to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.
- Have the following emergency plans, equipment and personnel on site where reasonable to deal with all potential emergencies:
    - Risk management / mitigation / EMP/ Emergency Response Plan and HSE Manuals
    - Adequate protection and indemnity insurance cover for incidents;
    - Comply with the provisions of all relevant safety standards;
    - Procedures, equipment and materials required for emergencies.
- Establish and maintain a fund for future ecological restoration of the project site should project activities cease and the site is decommissioned and environmental restoration or pollution remediation is required.
- Establish and / or maintain a reporting system to report on aspects of construction activities, operations and decommissioning as outlined in the EMP.
- Submit bi-annual reports to the MEFT to allow for environmental clearance certificate renewal after three years. This is a requirement by MEFT.
- Appoint a specialist environmental consultant to update the environmental assessment and EMP and apply for renewal of the environmental clearance certificate prior to expiry.

10.1.2 Skills Transfer, Employment and Income

Various levels of unskilled to skilled labour will be used during the construction phase. Contractors and staff skilled in the construction of filling stations, according to SANS specifications will be required to ensure that the facility is established according to acceptable standards. During the construction of the facility, unskilled labour from the area may be used for general construction tasks. Inherent to the construction of such a facility and the working relation between the skilled and unskilled workforce, skills transfer will be achieved. The unskilled labour force will acquire first-hand knowledge in fuel installation construction. Some skills transfer to unskilled workers may result. During the operational phase, existing employees of NAMPOL should be trained in the correct and safe procedure of fuel receipt, handling and dispensing. Such training should be documented in assuring the safe operation of the site. Skills and training obtained by all parties will improve their employability and resilience in the employment sector.

Income through salaries and wages will increase local spending power during the construction and operational phase. Employment will be sourced locally while skilled labour/contractors may be sourced from other regions.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Employment of additional workforce for the establishment of the facility	2	1	2	2	2	12	2	Probable
Daily Operations	Skills development of the existing workforce in terms of fuel handling and storage	2	1	3	3	1	14	2	Probable

Desired Outcome: Employment and development of local Namibians and increase in their spending power through receipt of wages and salaries.

Actions

Mitigation:

- The proponent must employ local Namibians where possible.
- Training of employees in the receipts, handling and storage of fuel.
- If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.
- Deviations from this practice must be justified.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Summary report based on employee records.
- Training records of employees kept on file.

10.1.3 Demographic Profile and Community Health

The project is reliant on labour during the construction and operational phase. The scale of the project is limited and it is not foreseen to create a change in the demographic profile of the local community. Community health may be exposed to factors such as communicable disease like HIV/AIDS and alcoholism/drug abuse, especially during the construction phase when an increase in foreign people in the area may potentially increase the risk of criminal and socially/culturally deviant behaviour.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	In-migration and social ills related to unemployment	2	-1	1	1	2	-8	-1	Probable
Daily Operations	In-migration and social ills related to unemployment	2	-1	1	2	1	-8	-1	Improbable

Desired Outcome: To prevent the in-migration and growth in informal settlements, prevent the spread of communicable disease and prevent / discourage socially deviant behaviour.

Actions:

Prevention:

- Employ only local people from the area, deviations from this practice should be justified appropriately.
- Adhere to all municipal by-laws relating to environmental health which includes but is not limited to sand and grease traps for the various facilities and sanitation requirements.

Mitigation:

- Educational programmes for employees on HIV/AIDs and general upliftment of employees' social status.
- Appointment of reputable contractors.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Facility inspection sheet for all areas which may present environmental health risks, kept on file.
- Summary report based on educational programmes and training conducted.
- Report and review of employee demographics.

10.1.4 Fuel Supply

The operation of the installation will aid in securing fuel supply to the fleet of NAMPOL at the new police station. This will aid in the efficiency of NAMPOL to perform their duties. Various indirect impacts may stem from the increased efficiency and availability of the fleet, not only in serving the local community, but also for Namibia as a whole as the resource will be located close to the Namibian / Angola Border.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Contribution to the efficiency of the police force	3	1	3	2	1	18	2	Definite

Desired Outcome: Ensure a secure fuel supply remains available to NAMPOL.

Actions

Mitigation:

- Proper management to ensure constant supply.
- Record supply problems and take corrective actions.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Record supply problems and corrective actions taken and compile a bi-annual summary report.

10.1.5 Traffic

The police station itself may increase traffic flow in the adjacent streets, however operations of the consumer fuel installation itself is not expected to result in traffic impacts since it is located on the police station premises and used only by NAMPOL and fuel deliveries will be infrequent. Construction activities may however result in minor traffic impacts.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Delivery of equipment and building supplies	2	-1	2	2	2	-12	-2	Probable
Daily Operations	Increase traffic, road wear and tear and accidents	2	-1	2	2	1	-10	-2	Improbable

Desired Outcome: Minimum impact on traffic and no transport or traffic related incidents.

Actions

Prevention:

- Erect clear signage regarding access and exit points at the facility.

Mitigation:

- Tanker trucks delivering fuel should not be allowed to obstruct any traffic or entrances / exists of surrounding properties.
- If any traffic impacts are expected, traffic management should be performed to prevent these.
- The placement of signs to warn and direct traffic will mitigate traffic impacts.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself.
- A report should be compiled of all incidents reported, complaints received, and action taken.

10.1.6 Health, Safety and Security

Activities associated with the construction and operational phases are reliant on human labour and therefore exposes them to health and safety risks. Activities such as the operation of equipment and handling of hazardous chemicals (inhalation and carcinogenic effect of some petroleum products), poses the main risks to employees. Security risks are related to unauthorized entry, theft and sabotage. However, there may also be risks related to the receipt, handling, storage and dispensing of fuel if not conducted in a safe manner. The efficient operations and availability of the fleet will increase the safety and security of the community.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Physical injuries, exposure to chemicals and criminal activities	1	-2	3	3	1	-14	-2	Probable
Daily Operations	Physical injuries, exposure to chemicals and criminal activities	1	-2	3	3	2	-16	-2	Probable

Desired Outcome: To prevent injury, health impacts and theft.

Actions

Prevention:

- Clearly label dangerous and restricted areas as well as dangerous equipment and products.
- Training should be provided to staff in the receipt, handling, storage and dispensing of fuel.
- Equipment that will be locked away on site must be placed in a way that does not encourage criminal activities (e.g. theft).
- Provide all employees with required and adequate personal protective equipment (PPE).
- Ensure that all personnel receive adequate training on operation of equipment / handling of hazardous substances.
- All Health and Safety standards specified in the Labour Act should be complied with.
- Implementation of maintenance register for all equipment and fuel/hazardous substance storage areas.

Mitigation:

- Selected personnel should be trained in first aid and a first aid kit must be available on site. The contact details of all emergency services must be readily available.
- Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes: colour coding of pipes, operational, safe work and medical procedures, permits to work, emergency response plans, housekeeping rules, MSDS's and signage requirements (PPE, flammable etc.).
- Strict security that prevents unauthorised entry during construction phases.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Training record of all staff to be kept on file.
- Any incidents must be recorded with action taken to prevent future occurrences.
- A report should be compiled of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

10.1.7 Fire

Operational and maintenance activities may increase the risk of the occurrence of fires. The installation will be located in an urban setup. Fuel, especially unleaded petrol, is highly flammable and therefore presents a fire risk.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Fire and explosion risk	1	-2	2	2	1	-10	-2	Improbable
Daily Operations	Fire and explosion risk	2	-2	2	2	1	-10	-2	Probable

Desired Outcome: To prevent property damage, possible injury and impacts caused by uncontrolled fires.

Actions:

Prevention:

- Ensure all chemicals are stored according to MSDS and SANS instructions.
- Maintain regular site, mechanical and electrical inspections and maintenance.
- Clean all spills / leaks.
- Special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990).
- Follow SANS standards for design, operation and maintenance of the installation, this includes refuelling locations and distances from boundaries.
- All dispensers must be equipped with devices that cut fuel supply during fires.
- The proponent should liaise with the local Fire Brigade to ensure that all fire requirements are met. This includes, but is not limited to SANS 10400 T: 2011.

Mitigation:

- A holistic fire protection and prevention plan is needed. This plan must include an emergency response plan, firefighting plan and spill recovery plan.
- Maintain firefighting equipment, good housekeeping and personnel training (firefighting, fire prevention and responsible housekeeping practices).

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of all incidents must be maintained on a daily basis. This should include measures taken to ensure that such incidents do not repeat themselves.
- A report should be compiled of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.

10.1.8 Air Quality

Fuel vapours will be released into the air during refuelling of storage tanks as well as at dispensing points. Prolonged exposure may have carcinogenic effects. Dust may be generated during construction activities.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive dust generated from maintenance and upgrade activities	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Fuel vapours	1	-1	2	2	1	-5	-1	Probable

Desired Outcome: To prevent health impacts and minimise the dust generated.

Actions

Mitigation:

- Personnel issued with appropriate masks where excessive dust or vapours are present.
- A complaints register should be kept for any dust related issues and mitigation steps taken to address complaints where necessary e.g. dust suppression.
- Employees should be coached on the dangers of fuel vapours.
- Vent pipes must be properly placed as per SANS requirements.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Any complaints received regarding dust or fuel vapours should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

10.1.9 Noise

Construction activities may generate excessive noise. This will be a temporary impact. During operations, noise pollution will be limited and may be related to vehicles accessing the site to offload fuel and during maintenance activities.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive noise generated from construction activities – nuisance and hearing loss	1	-1	2	2	1	-5	-1	Probable
Daily Operations	Noise generated from the operational activities – nuisance	1	-1	2	2	2	-6	-1	Probable

Desired Outcome: To prevent any nuisance and hearing loss due to noise generated.

Actions

Prevention:

- Follow World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment.
- All machinery must be regularly serviced to ensure minimal noise production.

Mitigation:

- Hearing protectors as standard PPE for workers in situations with elevated noise levels.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- WHO Guidelines.
- Maintain a complaints register.
- Report on complaints and actions taken to address complaints and prevent future occurrences.

10.1.10 Waste production

Waste will be produced during the construction and operational phase. Waste may include hazardous waste associated with the handling of hydrocarbon products etc. Waste presents a contamination risk and when not removed regularly may become a fire hazard. Construction waste may include building rubble and discarded equipment contaminated by hydrocarbon products. Contaminated soil and water is considered as a hazardous waste.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive waste production, littering, illegal dumping, contaminated materials	1	-2	2	2	2	-12	-2	Definite
Daily Operations	Excessive waste production, littering, contaminated materials	1	-2	2	2	2	-12	-2	Definite

Desired Outcome: To reduce the amount of waste produced, and prevent pollution and littering.

Actions

Prevention:

- Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate.
- Ensure adequate disposal storage facilities are available.
- Ensure waste cannot be blown away by wind.
- Prevent scavenging (human and non-human) of waste.
- All regulation and by-laws relating to environmental health should be adhered to.

Mitigation:

- Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers, contaminated rugs, paper water and soil).
- The spill catchment traps and oil water separator should be cleaned regularly and waste disposed of appropriately. Surfactants (soap) may not be allowed to enter the oil water separator.
- See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.
- Liaise with the local authority regarding waste and handling of hazardous waste.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.
- Any complaints received regarding waste should be recorded with notes on action taken.
- The oil water separator must be regularly inspected and all hydrocarbons removed once detected. Outflow water must comply with effluent quality standards.
- All information and reporting to be included in a bi-annual report.

10.1.11 Ecosystem and Biodiversity Impact

In terms of ecology, the site is already disturbed and degraded. Some trees (*Combretum* sp.) are present in the area where the consumer fuel installation will be placed and a few may require removal. These trees are not protected by forestry legislation. The nature of the operational activities is such that the probability of creating a habitat for flora and fauna to establish is low. No significant impact on the biodiversity of the area is predicted and impacts are therefore mostly related to pollution of the environment.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Impact on fauna and flora. Loss of biodiversity	1	-1	3	2	2	-7	-1	Improbable
Daily Operations	Impact on fauna and flora. Loss of biodiversity	1	-1	3	2	2	-7	-1	Improbable

Desired Outcome: To avoid pollution of and impacts on the ecological environment.

Actions.

Prevention:

- Where possible, the exiting trees must be retained by incorporating them into the layout of the facility.

Mitigation:

- Report any extraordinary animal sightings to the MEFT.
- Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.
- Avoid scavenging of waste by fauna.
- The establishment of habitats and nesting sites at the facility should be avoided where possible.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- All information and reporting to be included in a bi-annual report.

10.1.12 Groundwater, Surface Water and Soil Contamination

Operations entail the storage and handling of hydrocarbons which present a contamination risk. Contamination may either result from failing storage tanks, pumps or pipelines, or spills and leaks associated with overfilling or human error. Such spills may contaminate surface water, soil and groundwater.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Contamination from hazardous material spillages and hydrocarbon leakages	2	-1	2	2	1	-10	-2	Probable
Daily Operations	Contamination from hazardous material spillages and hydrocarbon leakages	2	-1	2	2	1	-10	-2	Probable

Desired Outcome: To prevent the contamination of water and soil.

Actions

Prevention:

- Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator.
- All fuelling should be conducted on surfaces provided for this purpose. E.g. Concrete slabs with regularly maintained seals between slabs.
- The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.
- Proper training of operators must be conducted on a regular basis (Fuel handling, spill detection, spill control).

Mitigation:

- Any spillage of more than 200 litre must be reported to the Ministry of Mines and Energy.
- Spill clean-up means must be readily available on site as per the relevant MSDS.
- Any spill must be cleaned up immediately.
- The spill catchment traps and oil water separator should be cleaned regularly and waste disposed of at a suitably classified hazardous waste disposal facility.
- Surfactants (soap) may not be allowed to enter the oil water separator e.g. soap usage on spill control surfaces.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results) with post remediation data (e.g. soil/groundwater hydrocarbon concentrations) and a copy of documentation in which spill was reported to Ministry of Mines and Energy.

10.1.13 Visual Impact

This impact is not only associated with the aesthetics of the site, but also the structural integrity. The facility will form part of the police station and will have a minimal impact regarding aesthetics.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Aesthetic appearance and integrity of the site	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Aesthetic appearance and integrity of the site	1	-1	2	2	2	-6	-1	Improbable

Desired Outcome: To minimise aesthetic impacts associated with the facility.

Actions

Mitigation:

- Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures are maximised and a low visual impact is maintained.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A maintenance record should be kept.
- A report should be compiled of all complaints received and actions taken.

10.1.14 Impacts on Utilities and Infrastructure

Construction activities such as excavation and heavy vehicles accessing the site may lead to accidental damage to utilities and infrastructure, which in turn may lead to interruption of services such as water and electricity supply to the area.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction Phase	Disruption of services and damage to infrastructure	2	-2	2	2	1	-20	-3	Probable
Daily Operations	Disruption of services and damage to infrastructure	2	-1	2	2	1	-10	-2	Improbable

Desired Outcome: No impact on utilities and infrastructure.

Actions

Prevention:

- Appointing qualified and reputable contractors is essential.
- The contractor must determine exactly where amenities and pipelines are situated before construction commences (utility clearance e.g. ground penetrating radar surveys).
- Liaison with the suppliers of services is essential.

Mitigation:

- Emergency procedures for corrective action available on file.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A report should be compiled every 6 months of all incidents that occurred and corrective action taken.

10.1.15 Cumulative Impact

Possible cumulative impacts associated with the construction and operational phase include increased noise and traffic in the area. This will have a cumulative impact on traffic flow on surrounding streets.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction Phase	The build-up of minor impacts to become more significant	2	-2	1	2	2	-20	-3	Probable
Daily Operations	The build-up of minor impacts to become more significant	2	-2	2	2	2	-24	-3	Probable

Desired Outcome: To minimise cumulative all impacts associated with the facility.

Actions

Mitigation:

- Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.
- Reviewing biannual and annual reports for any new or re-occurring impacts or problems would aid in identifying cumulative impacts and help in planning if the existing mitigations are insufficient.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Annual summary report based on all other impacts must be created to give an overall assessment of the impact of the operational phase.

10.2 DECOMMISSIONING AND REHABILITATION

Decommissioning is not foreseen during the validity of the environmental clearance certificate. Decommissioning was however assessed as construction activities include modification and decommissioning. Should decommissioning occur at any stage, rehabilitation of the area may be required. Decommissioning will entail the complete removal of all infrastructure including buildings and underground infrastructure. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within WHO standards and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas. Future land use after decommissioning should be assessed prior to decommissioning and rehabilitation initiated if the land would not be used for future purposes. The EMP for the facility will have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures.

10.3 ENVIRONMENTAL MANAGEMENT SYSTEM

The Proponent could implement an Environmental Management System (EMS) for their operations. An EMS is an internationally recognized and certified management system that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS would need to include the following elements:

- A stated environmental policy which sets the desired level of environmental performance;
- An environmental legal register;
- An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- Identification of environmental, safety and health training needs;
- An environmental program(s) stipulating environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy; and
- Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS.
- The EMP

11 CONCLUSION

The consumer fuel installation will have a positive impact on the operations of the police station, by ensuring a reliable supply of fuel is available to all fleet vehicles. This in turn will aid in increasing safety and security in and around Ongha, see Table 11-1. In addition to a reliable fuel supply, the facility indirectly contributes locally to skills transfer and training which in turn develops the local workforce, especially during the construction phase.

Negative impacts can successfully be mitigated. SANS standards relating to the petroleum industry and prescribed by Namibian law must be followed during all operations of the consumer fuel installation. Noise pollution should at all times meet the prescribed WHO requirements to prevent hearing loss and not to cause a nuisance. Fire prevention should be adequate, and health and safety regulations should be adhered to in accordance with the regulations pertaining to relevant laws and internationally accepted standards of operation. Any waste produced must be removed from site and disposed of at an appropriate facility or re-used or recycled where possible. Hazardous waste must be disposed of at an approved hazardous waste disposal site.

The EMP (Section 10) should be used as an on-site reference document for the operations of the facility. Parties responsible for transgressing of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The proponent could use an in-house Health, Safety, Security and EMS in conjunction with the EMP. All operational personnel must be taught the contents of these documents.

Should the Directorate of Environmental Affairs (DEA) of the MEFT find that the impacts and related mitigation measures, which have been proposed in this report, are acceptable, an environmental clearance certificate may be granted to the Proponent. The environmental clearance certificate issued, based on this document, will render it a legally binding document which should be adhered to. Focus could be placed on Section 10, which includes an EMP for this project. It should be noted that the assessment process's aim is not to stop the proposed activity, or any of its components, but to rather determine its impact and guide sustainable and responsible development as per the spirit of the EMA.

Table 11-1. Impact Summary Class Values

Impact Category	Impact Type	Construction		Operations	
	Positive Rating Scale: Maximum Value	5		5	
	Negative Rating Scale: Maximum Value		-5		-5
EO	Skills Transfer, Employment and Income	2		2	
SC	Demographic Profile and Community Health		-1		-1
EO	Fuel Supply			2	
SC	Traffic		-2		-2
SC	Health, Safety and Security		-2		-2
PC	Fire		-2		-2
PC	Air Quality		-1		-1
PC	Noise		-1		-1
PC	Waste Production		-2		-2
BE	Ecosystem and Biodiversity Impact		-1		-1
PC/BE	Groundwater, Surface Water and Soil Contamination		-2		-2
SC	Visual Impact		-1		-1
PC/SC	Impacts on Utilities, Infrastructure and Seabed Scouring		-3		-2
PC	Cumulative Impact		-3		-3

BE = Biological/Ecological EO = Economical/Operational PC = Physical/Chemical SC = Sociological/Cultural

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Appendix A: Proof of Public Consultation

Notified Interested and or Affected Parties

Name / Position	Organization / Private
Chief Executive Officer (By Fax)	Ohangwena Regional Council
MN Petrus (By E-mail)	Ministry of Environment, Forestry & Tourism (Ongha)
Ms. Elisabeth Mutwamezi (By E-mail)	Neighbour (Private)
Ndilimeke Shikemeni (By hand delivered letter)	Neighbour (Private)
Filippus Nangolo (By hand delivered letter)	J.S.H.N Trading
Samuel Nambala (By hand delivered letter)	German City
Riska van Coller (By hand delivered letter)	Ongha Service Station

Proof of Notification: Neighbouring Properties

Public Participation Notification: Environmental Assessment Consumer Fuel Installation, Ongha Police Station, Ohangwena Region

Name & Surname	Organisation/Address	Tel / Mobile	Email	Signature
Ndinelao Shivemeni	Neighbour.	Privacy Block		Ndshivemeni
Nangolo Filippus	FG. H.N. Trading			
Samuel Mauludala	Germancity			
Ongha Service Station	Petra von Keller			

Geo Pollution Technologies
Consumer Fuel Installation, Ongha Police Station

September 2021

Press Notice: The Namibian Sun 21 and 28 September 2021

NAMIBIA REMAINS ON UK RED LIST

ELLANIE SMIT
WINDHOEK

Despite the United Kingdom scrapping its traffic light system in an overhaul of its Covid-19 travel restrictions, Namibia remains on the 'red list' of countries from which arrivals must undergo a hotel quarantine.

It was announced last Friday that the three-tier travel system is being replaced by one category of low-risk travel destinations alongside a red list. Only UK citizens and residents are allowed to enter the country after returning from a red list country, while anyone else will be refused entry. Arrivals from red list countries must undertake a 10-day stay in a managed quarantine hotel at a cost of £2 285 (about N$46 187 at yesterday's currency) for solo travellers.

This includes transport to the hotel, provision of welfare services and the two PCR tests which must be undertaken on day two and day eight of the stay.

Top market

Tourism stakeholders have raised concern with the fact that Namibia has not been removed from the list, as this severely impacts the industry.

The red list has existed since January 2021, and is a list of destinations the UK government has defined as particularly high-risk for new and emerging strains of Covid-19.

The UK is one of Namibia's top tourist markets, with 5 156 visitors that came from that country last year. The arrival figures dropped significantly due to the Covid-19 pandemic, considering UK tourist arrivals stood at 27 351 in 2019. From Namibia's 126 811 cumulative Covid-19 cases, only 1 249 are active cases and the country has had a 96% recovery rate, the health ministry reported on Sunday.

Gobabis municipality suspends alleged whistle-blower

OGONE TLHAGE
WINDHOEK

The Gobabis town council has suspended executives-turned-whistle-blower Wynona Steyn for allegedly leaking information relating to the suspension of five employees recently.

Steyn, who was suspended on full pay for the next six months, was the municipality's acting strategic executive of human resources and corporate services at the time of her suspension.

Council management chairperson Sylvester Binga confirmed the suspension.

"She tampered with an ongoing investigation and released council information without permission," he said.

Her suspension letter, which *Namibian Sun* has seen, indicates that she was suspended over "suspected incidents of serious misconduct on your part".

Disciplinary action

"If these serious allegations are found to be true, council has reason to believe that this may lead to disciplinary action. This will lead to formal charges against you that may be different than stated above. In light hereof, an unhindered investigation needs to be conducted into all these incidents of suspected or alleged misconduct. You are thus placed on immediate suspension given the urgency and seriousness of the suspected acts of misconduct," the letter read.

Efforts to get comment from Steyn on her suspension proved futile as calls made to her went unanswered.

Those initially suspended included electrical services manager Johannes Nantuua, human resource manager Ashipala Shilemba, finance and IT and procurement manager Fillemon Makili, IT technician Paul Kayambu and IT officer Kondjeni Nghiwanapo.

They were all placed on suspension after letters requiring them to advance reasons why they should not be suspended were served to them. The suspensions were confirmed by the municipality's acting CEO, Steve Adonis, at the weekend. The group, represented by defence lawyer Sisa Namandje, gave notice in the High Court recently about their intention to fight for their reinstatement.

Victimisation

"A number of employees who are considered to be members of Swapo or members of tribes not considered to have originated from the Omaheke Region, and Gobabis in particular, largely Oshiwambo-speaking, allegedly faced a campaign of victimisation by the late CEO, Mr [Ignatius] Thudinyane," Makili said in an affidavit.

He added: "The situation became worse after the local authority elections during November 2020 when the majority of councillors from [the] Gobabis Ratepayers Association, National Unity Democratic Movement, Landless People's Movement and Popular Democratic Movement by majority took over the Gobabis town council and management committee."

He also took issue with the manner in which the suspensions were effected, saying that it was unlawful and politically motivated.

"It is important to state that the applicants, targeted through unlawful suspensions, are all from one tribe. Furthermore, Gobabis being a small town, the applicants are known to be members of the ruling party." Gobabis residents, however, claim that the tribal and political spin to the saga is aimed at shielding the suspended and to hide their involvement in alleged dubious activities.

● MINE MANAGEMENT OWES COUNCIL N$15M

Rehoboth gives Chinese firm marching orders

Maggie Ming said management is confident that the **dispute will be settled amicably.**

JEMIMA BEUKES
WINDHOEK

GET OUT: Africa Huaxia Mining has received marching orders from the Rehoboth town council. PHOTO: FILE

The Rehoboth town council says it will no longer go back and forth with the Africa Huaxia copper mine owned by a Chinese company, and has asked them to leave the town – or cough up more than N$10 million in outstanding electricity payments by the end of this month.

Rehoboth CEO Simeon Kanime told *Namibian Sun* that the mine management refused to pay the council about N$15 million for the leasing of land and electricity usage.

The company was supposed to pay N$35 000 a month for the land, but no formal contract was ever signed.

However, a valuer brought in by the council recently recommended a monthly rental fee of N$20 000 instead of the N$35 000 initially agreed upon.

"We will no longer entertain the Chinese mine. They will have to pay this N$20 000 backdated to 2011 before the end of September or they must leave. We are tired of this back and forth," Kanime said.

Negotiations ongoing

Speaking on behalf of the mine management, Maggie Ming said they are confident that the dispute will be settled amicably.

According to her, Africa Huaxia Mining (Pty) Ltd is committed to corporate governance principles to encourage and support a culture of safe, ethical behaviour, in addition to integrity and respect and, therefore, concerns raised by the town council are discussed with the involvement of the Electricity Control Board (ECB).

"The dispute on the rental payments of the land on which the Swartmodder mine operates are being addressed via Minerals Ancillary Rights Commission (MARC) in terms of section 110(4) of Minerals (Prospecting and Mining) Act, Act 33 of 1992. We have made reasonable progress with the support and involvement of ECB and MARC respectively, but due to the confidentiality of the ongoing deliberations, we cannot avail much information at this stage.

"We, however, acknowledge receipt of the eviction letter from the Rehoboth town council," she said.

jemima@namibiansun.com

PUBLIC PARTICIPATION NOTICE
ENVIRONMENTAL ASSESSMENT FOR A CONSUMER FUEL INSTALLATION IN ONGHA, OHANGWENA REGION

Geo Pollution Technologies (Pty) Ltd was appointed to undertake an environmental assessment for the construction and operations of a consumer fuel installation in Ongha, Ohangwena Region. The Ministry of Home Affairs, Immigration, Safety and Security commissioned the construction of a new consumer fuel installation at the Ongha Police Station, located at the corner of the B1 Trunk Road and the D3638 District Road. The consumer installation will supply both unleaded petrol and diesel to the Namibian Police Force (NAMPOL) fleet vehicles operational in the area.

The environmental assessment will be according to the Environmental Management Act of 2007 and its regulations as published in 2012. More information is available at:

http://www.thenamib.com/projects/projects.html

All interested and affected parties are invited to register with the environmental consultant. By registering you are provided with the opportunity to share any comments, issues or concerns related to the facility, for consideration in the environmental assessment. Additional information can be requested from Geo Pollution Technologies.

All comments and concerns should be submitted to Geo Pollution Technologies by **04 October 2021**.

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Sun
TUESDAY 28 SEPTEMBER 2021 | NEWS | 3

CITES MUST TAKE ACTION ON ILLEGAL PANGOLIN TRADE

CRITICALLY ENDANGERED: Consumer demand in China is driving the eight species of pangolin to extinction. PHOTO: NAMPA-AFP

ELLANIE SMIT
WINDHOEK

Parties of the Convention on International Trade in Endangered Species (Cites) can and must do more to address the dire impacts of the global illegal pangolin trade.

This according to a new briefing document, which outlines the Environmental Investigation Agency's (EIA) findings and recommendations on key issues relating to the trade.

The EIA said following decades of overexploitation due to international trade, in 2016, all eight pangolin species were uplisted from Appendix II to Appendix I on Cites.

This made the international commercial trade in pangolins and their by-products illegal, but despite this, the global pangolin trafficking crisis has continued. Between 2017 and present-day, the EIA has documented almost 300 tonnes of pangolin scales seized globally.

Chinese market

"Pangolin scales are trafficked by transnational criminal networks that operate with high levels of impunity."

EIA said it recognises that there are two key factors driving the global illegal pangolin trade.

"Firstly, the role of consumer demand in China, where pharmaceutical companies and hospitals can legally produce and sell traditional Chine medicine products containing pangolin scales, and secondly, a lack of fair and effective criminal justice responses to address the involvement of transnational criminal networks in pangolin trafficking." At the 18th Cites Conference of Parties, a decision was made for the Cites secretariat to prepare a report on pangolins to present information on their conservation status, legal and illegal trade, as well as stockpile management and enforcement issues.

It will be considered at the 74th meeting of the Cites standing committee, which is tentatively scheduled for March 2022.

"Although the timelines for the submission and review of this report are exceptionally slow, it represents an important opportunity to feed information into Cites decision-making processes."

Vital

It is vital that Cites parties call for more urgent action from range, transit and destination countries to implement effective international law enforcement efforts targeting the criminal networks involved in pangolin trafficking, EIA's pangolin campaign deputy leader, Chris Hamley, said.

• FARMERS WARNED AGAINST ILLEGAL CROSS-BORDER ANIMAL MOVEMENT

New FMD serotypes threaten livestock industry

In Zambezi, the disease has already infected 5 000 cattle in 28 crushpens and localities, while 150 cattle have died of FMD-related causes. **Infected animals are unable to feed, drink water or walk because of severe lesions.**

ELLANIE SMIT
WINDHOEK

New Foot-and-Mouth Disease (FMD) serotypes present in southern Africa pose a major threat to Namibia's livestock industry.

Agriculture minister Calle Schlettwein has warned farmers to refrain from any illegal cross-border movement of animals, saying that disease outbreaks have the potential to severely affect and paralyse a country's economic activities, the livelihoods of farmers, their dependents as well as food security at national and household level.

Schlettwein briefed Parliament last week on the status of FMD in the Zambezi Region, which has already infected 5 000 cattle in 28 crushpens and localities.

Meanwhile, 150 cattle have died due to FMD-related causes such as dehydration and starvation as infected animals are unable to feed, drink water or walk because of severe lesions in the mouth and on the hooves.

Schlettwein said on 28 May the ministry detected an outbreak of FMD at the Kasenu Village of the Kabbe South constituency in Zambezi.

At that time, the FMD serotypes were confirmed on 3 June to be SAT 1 and 2.

According to him, outbreak control measures were immediately instituted and entailed movement restrictions, intensive disease surveillance and vaccination of cattle against FMD using the FMD trivalent SAT 1, 2 and 3 vaccines.

New variant

"However, despite the higher vaccination coverage in the infected herds, it was observed that the infection rates remained high among the vaccinated cattle, which is an indication of the presence of a different FMD virus variant."

He said this was confirmed through further field and laboratory investigations, which identified the new FMD virus serotype O on 9 August - for the first time in Namibia's history.

There are seven immunologically distinct variants of FMD viruses, namely A, O, C, South African Territories 1, 2 and 3 (SAT1, SAT2 and SAT3), and Asia 1.

"However, in the history of Namibia, FMD outbreaks have always been caused by SAT 1, 2 and 3 serotypes," Schlettwein said.

The new FMD serotype O also causes clinical cases in goats and sheep and they can spread the disease further to other susceptible animals.

Schlettwein explained that investigations to establish the source of the new variant was conducted through genesequencing of the confirmed serotype O in Zambezi, and results showed that it is associated with the ongoing FMD serotype O outbreaks in Zambia that were detected from 2018 to 2021.

"It is concluded that the new FMD serotype O was introduced into Namibia from Zambia through illegal cross-border movement of livestock between Zambezi and Zambia."

High risk

The minister said a total of 340 000 doses of FMD serotype O was procured at a cost of more than N$6 million and delivered on 17 September.

"Vaccination has started and it is currently ongoing, targeting the cattle population of 170 000 in Zambezi."

Schlettwein, however, said in addition to FMD serotype O, Zambia has reported an ongoing outbreak of FMD serotype A in areas next to the border with Namibia and Angola.

ellanie@namibiansun.com

UNDER THREAT: New FMD serotypes pose a threat to the Namibian livestock industry. PHOTO: FILE

Kindergarten feeding scheme changes lives

JANA-MARI SMITH
WINDHOEK

More than 5 500 vulnerable preschoolers receive three free meals at 135 kindergartens across Windhoek's poverty-stricken informal settlements.

The initiative is one component of a large-scale Early Childhood Development (ECD) programme launched more than two years ago by the Development Workshop Namibia (DWN).

A multi-pronged programme, it is focused on supporting and engaging with informal settlement kindergartens through teacher training, learning material distribution, parent workshops and a sanitation project as well as the fast-growing feeding scheme.

The ECD programme has seen massive growth since last year, from 20 centres supported in Windhoek to 240 ECD centres now receiving help in several towns with the financial support of donors such as the European Union, the United Nations Children's Fund, MTC and the Twin Hills Trust in Omaruru.

The feeding scheme has been rolled out to 135 Windhoek kindergartens and four in Omaruru.

Early burden

"Children growing up in the informal settlements are burdened with a lot of social and economic challenges that trap them in poverty and inequality for many years to come," Hilma Weber, the DWN's ECD coordinator, explained.

"Food security is a very big challenge and children are at danger of developmental delays because of malnutrition," she warned.

"To change this, it is important that, as a society, we invest more in ECD programmes and activities. It must be our common goal that all children, irrespective of their background, have access to quality early learning and education."

Covid-19 has battered the already encumbered informal economies and social problems informal settlement residents grapple with daily.

As a result, hunger, a widespread problem for many families pre-pandemic, has reared its head in more households over the past year.

Many teachers have since dug into their own pockets to ensure that hungry children in their care are fed.

"You feel bad when you see a child who has food, and another who has nothing. So, we actually sometimes sacrificed our food to make sure a child did not suffer without food," pre-primary teacher Elizabeth Iyambo said. "These are our children; they are tomorrow's leaders. Because of this DWN programme, we almost have no absentee children any more. The feeding programme has changed their lives."

Big concern

Community activist Foibe Selvanus said hunger is "a big concern. And with Covid-19, a lot of people have lost their jobs, and they struggle to provide food."

The ECD programme ensures children are guaranteed three meals a day, and has boosted school attendance and quality of education.

"Previously, kids went to school on an empty stomach, affecting their concentration. They would drink water just to fill their tummies. But now we see an academic improvement and higher daily attendance. The kids look forward to the day because of the food," Selvanus said.

"A hungry kid cannot concentrate. If they have something in their stomach, we can teach them," Martha Beukes, a pre-primary school teacher, said. "I have to give DWN a round of applause. This programme has helped parents, the kids and the community.

Press Notice: Die Republikein 21 and 28 September 2021

Heckmair-verhoor verdaag tot 2022

Soektog sonder lasbrief uitgevoer

Gedurende die laaste dae van die moordverhoor vir dié jaar het die verdediging besware teen die getuienisse van Nampol se ondersoekbeamptes gehad.

Stefan Noechel

Die getuienisse van twee voormalige ondersoekbeamptes van die Namibiese polisie (Nampol), Joseph Ndokosho en Frans Kantema, wat verlede week in die Windhoekse hoërhof teen die twee Amerikaners, mnre. Marcus Thomas en Kevan Townsend, getuig het, was die laaste getuienis vir die jaar.

Die verdediging, me. Lilian Mbaeva en mnr. Mbanga Siyomuinji, het Ndokosho en Kantema verlede week deeglik gekruisondervra.

Dié twee ondersoekbeamptes se geskrewe verklarings is vergelyk met hul getuienisse in die hof en die verdediging het op die geringste teenstrydighede klem gelê.

Die verdediging het beweer die polisie het nie 'n lasbrief gehad om die beskuldigdes se kamer die dag van hul inhegtenisneming by die gastehuis te deursoek nie. Hul tweede beswaar was dat hulle sonder 'n lasbrief en volgens artikel 22 van die Namibiese strafwet, die beskuldigdes se toestemming moes vra om die kamer te deursoek.

VERHOOR BINNE 'N VERHOOR

Regter Christie Liebenberg het op versoek van die verdediging, 'n binneverhoor gelas om die wettige gronde van die ondersoek te bepaal.

'n Binneverhoor word deur die hof gelas en uitgevoer indien kwessies oor feite en die wet, ná of gedurende getuienis, onder die vergrootglas kom. Dit stel die regter in staat om oor verskillende regsvrae op grond van getuienis te besluit.

Die hoofverhoor is daarom tydelik gestaak totdat die binneverhoor afgehandel is.

Kantema was destyds die hoof van die operasie en het getuig hulle het weens die dringendheid nie eers 'n soektog-lasbrief verkry nie. Volgens hom kon die verdagtes op die vlug slaan of bewyse vernietig en was waarskynlik gewapen en in besit van 'n huurmotor.

Die inhegtenisneming het omstreeks 17:00 op 7 Januarie 2011 plaasgevind en dit was volgens Kantema te laat om 'n lasbrief by 'n landdros te kry.

Ndokosho het getuig hulle het vir Thomas en Townsend gevra of hulle die kamer kan deursoek en een van hulle het volgens hom toestemming gegee.

AMERIKANERS GLO 'GEDREIG'

Siyomuinji, namens Townsend, het gesê die twee Amerikaners was onder die indruk hulle word beroof, aangesien die polisiebeamptes nie in uniform geklee was nie, gewapen was, nie hulself geïdentifiseer het nie en probeer het om die kamer met geweld binne te kom.

Die beamptes het die beskuldigdes glo met wapens gedreig en fisiek aangerand.

Ndokosho en Kantema het albei dit ontken en getuig hoewel die polisiebeamptes nie uniforms aangehad het nie, het hulle hulself herhaaldelik as polisiemag geïdentifiseer en hul ID-kaarte gewys.

Die duo het ook getuig een van die Amerikaners het by die kamervenster uitgekyk om te sien wie by die deur is.

Die kamerdeur is uiteindelik van die binnekant af oopgesluit en polisiebeamptes het ingestorm. 'n Stoeiery het tussen Thomas en die beamptes ontstaan, maar hy is vasgedruk en geboei. Die kamer is hierna sonder 'n lasbrief deursoek.

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Mnre. Marcus Thomas en Kevan Townsend, wat daarvan beskuldig word dat hulle André Heckmair in 2011 doodgeskiet het, se verhoor is tot Januarie 2022 uitgestel. FOTO STEFAN NOECHEL, AZ

'n Woedende skare het voor die munisipaliteit se kantoor saamgedrom. FOTO'S ELIZABETH JOSEPH

Keetmanshoop steeds onder die loep

Elizabeth Joseph op Keetmanshoop

Ná weke van beskuldigings dat die munisipaliteit die inwoners van Keetmanshoop se water onregverdig afgesny het, het die uitvoerende hoof van die dorpsraad, mnr. Desmond Basson, 'n klagskrif van die gemeenskap namens die burgemeester ontvang.

Die uitvoerende hoof van die Keetmanshoop-munisipaliteit, mnr. Desmond Basson, ontvang die klagskrif namens die burgemeester, mnr. Maree Smit.

Sedert Julie vanjaar het die munisipaliteit sy skuld aan NamWater onder inwoners se aandag gebring as 'n manier om hulle aan te spoor om hul rekeninge te vereffen. Volgens die munisipaliteit se skakelbeampte, me. Dawn Kruger, beloop die dorp se skuld aan NamWater N$22 miljoen.

Sy het voorts gesê daar word van die dorp verwag om maandeliks N$2 miljoen terug te betaal.

Gemeenskapslede het verlede week by die munisipaliteit se kantoor saamgedrom om hul griewe te lug.

Onder die woedende skare was die sakeman en voormalige burgemeester van Keetmanshoop, mnr. Basil Brown, wat beweer hy het 'n rekening van bykans N$400 000 ontvang alhoewel sy betalings nog nooit agterstallig was nie.

"Ek is verpletter oor dit wat by die munisipaliteit gebeur. Ek praat nou as die voormalige burgemeester. My water is nou afgesny nadat ek maande lank gesmeek het dat hulle vir my 'n rekening moet stuur," het Brown gesê.

VOORAFBETAALDE WATER

Volgens die woordvoerder sal dit ernstige gevolge vir nie-betalende en betalende kliënte inhou as die munisipaliteit 'n voorafbetaalde watertoevoerstelsel implementeer.

"Die munisipaliteit self kan die risiko loop om tot dorpsvlak afgegradeer te word, of ons sal dalk boorgatwater aan kliënte moet verskaf," sê sy.

In die klagskrif pleit die gemeenskap die munisipaliteit moet voorafbetaalde watermeters installeer om die res van die gemeenskap toe te laat om van so min as N$100 se watervoorraad te leef.

Die klagskrif eis verder die munisipaliteit moet 'n vergadering met alle belanghebbers belê – insluitend die raad, munisipale administrasie, NamWater en die ministerie van stedelike en landelike ontwikkeling.

"Met 'n maandelikse gemiddeld van N$700 vir 'n huishouding, beteken dit ongeveer 10 000 liter water word deur 'n gemiddelde huishouding verbruik.

"Die gemiddelde waterverbruik per maand is gewoonlik tussen 2 000 en 3 000 liter, wat neerkom op 'n gemiddelde maandelikse rekening van ongeveer N$250, en 'n maksimum van N$350 as die waterverbruik 5 000 liter per maand is," lui die klagskrif verder.

Wat die dorp se rekening betref en dít wat aan NamWater verskuldig is, het die burgemeester, me. Maree Smit, gesê die dorp het tot dusver N$200 000 van die verskuldigde bedrag terugbetaal.

Die ministerie het sedertdien 'n nasionale omsendbrief aan plaaslike owerhede landswyd uitgestuur waarin hulle aangeraai word om hul kredietbeleid en skuldbeleid af te dwing en dienste vir wanbetalers verder op te skort, aangesien die land nie meer in 'n noodtoestand verkeer nie.

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Bek-en-klou: Nog 'n variant dreig

Virus eis reeds 150 beeste

Zambië het 'n uitbreking van 'n tweede nuwe variant van bek-en-klouseer opgemerk in gebiede wat teenaan Namibië en Angola grens.

Elvira Hattingh

Kommer heers dat 'n tweede nuwe variant van bek-en-klouseer vanaf Zambië na Namibië kan versprei, indien stappe nie gedoen word om die onwettige oorsteek van vee oor die grens hok te slaan nie.

Dit volg nadat die uitbreking van serotipe-O vir die eerste keer in Namibië se geskiedenis in Augustus deur laboratoriums bevestig is. Sowat 5 000 beeste is reeds deur die nuwe variant besmet, terwyl 150 al gevrek het.

Die minister van landbou, water en grondhervorming, mnr. Calle Schlettwein, het die inligting Donderdag in die parlement bekend gemaak.

Schlettwein sê die serotipe-O-variant het waarskynlik na Namibië gekom deur die onwettige oorsteek van vee tussen die Zambezistreek en Zambië.

"Bo en behalwe die variant, het Zambië 'n voortslepende uitbreking van serotipe-A opgemerk in gebiede wat teenaan Namibië en Angola grens.

"Dit beteken daar bestaan 'n groot risiko dat serotipe-A in Namibië ingebring kan word en in die noordsentrale dele van die land kan versprei, indien die huidige oorgrensbeweging van vee voortgaan," het hy gesê.

"Dis belangrik om daarvan kennis te neem dat beide serotipes-A en -O nuwe variante in Suider-Afrika is.

"Daar bestaan 'n behoefte vir samewerking onder SADC-lande, veral met direkte buurlande, om die variante te beheer en te voorkom omdat dit 'n bedreiging vir die lewendehawebedryf in Namibië inhou," het hy gesê.

Calle Schlettwein
LANDBOUMINISTER

"Die uitbreking van die siekte het die potensiaal om die land se ekonomiese aktiwiteite asook boere en hul afhanklikes se lewensbestaan lam te lê . . ."

ENTSTOF

Schlettwein het gesê 340 000 dosisse entstof teen serotipe-O is intussen vir sowat N$6 miljoen aangekoop, wat reeds teen 17 September afgelewer is.

"Inentings het reeds begin en is nog aan die gang, met die Zambezistreek se bevolking van 170 000 beeste as die teiken. Boere word versoek om al hul beeste na die naaste beeskraal vir inenting te bring," het hy gesê.

Ander maatreëls vir die bekamping van die virus, sluit in dat vyf padblokkades in die streek opgestel is om die beweging van vee en rou produkte te bekamp, terwyl siekte-monitering streng uitgevoer word.

Schlettwein het gesê die 150 beeste wat reeds gevrek het, is aan die siekte se komplikasies dood soos dors en hongerte omdat die erge sere in hul bekke en aan hul hoewe veroorsaak dat hulle nie kan eet of water drink nie.

"Dis belangrik om daarvan kennis te neem dat serotipe-O ook kliniese gevalle onder bokke en skape veroorsaak, wat die siekte verder na vatbare diere kan versprei."

ONTDEKKING

Schlettwein sê die ministerie het reeds op 28 Mei 'n uitbreking van bek-en-klouseer by die Kasenu-nedersetting in die Kabbe Suid-kiesafdeling in die Zambezistreek ontdek.

Die Sentrale Veterinêre Laboratorium (CVL) het op 3 Junie bevestig die uitbreking is deur serotipe-SAT 1 en -SAT 2 veroorsaak.

Dié uitbreking het intussen na die Kabbe Noord-kiesafdeling asook Katima se landelike kiesafdelings versprei en altesaam sowat 5 000 beeste besmet.

Mnr. Calle Schlettwein. FOTO NAMPA

"Maatreëls om die uitbreking te beheer, is onmiddellik geïmplementeer, insluitend beperkings op die beweging van vee, intensiewe siektetoesig asook die inenting van beeste teen die bek-en-klouseer serotipe-SAT- 1, -2 en -3.

"Ten spyte van dekking van inentings onder besmette kuddes, het ons waargeneem die infeksiekoers het hoog gebly onder die ingeënte diere, wat 'n aanduiding gee 'n ander variant is teenwoordig.

"Dis intussen deur verdere veld- en laboratorium ondersoeke bevestig, wat die nuwe serotipe-O op 9 Augustus geïdentifiseer het. Dis die eerste keer in Namibië se geskiedenis dat dit gebeur. Dit verduidelik ook die swak reaksie op die entstof," het Schlettwein gesê.

"Genetiese ontledings om die oorsprong van die nuwe variant vas te stel, dui aan dit kan verbind word met die voortdurende serotipe-O-uitbreking in Zambië, wat reeds sedert 2018 daar voorkom."

Schlettwein sê daar is sewe variante van bek-en-klouseer virusse, naamlik A, O, C, die Suid-Afrikaanse SAT-1, -2 en -3, asook Asië-1.

In Namibië se geskiedenis is uitbrekings egter altyd deur die SAT-1, -2 en -3-serotipes veroorsaak.

RAMPSPOEDIG

"Die uitbreking van die siekte het die potensiaal om die land se ekonomiese aktiwiteite asook boere en hul afhanklikes se lewensbestaan lam te lê en voedselsekuriteit op nasionale en huishoudelike vlak te belemmer," het die minister gewaarsku.

Hy sê die uitbreking van die siekte het 'n negatiewe uitwerking op die handel van vee en veeprodukte omdat verskeie wêreldlande vry van die siekte is en nie vleis van 'n besmette land sal aanvaar nie.

"Daar moet kennis van geneem word dat sodra 'n uitbreking in die noordelike kommunale gebied ontdek word, dit enige vordering sal platvee wat deur die ministerie binne die beskermingsone gemaak is om vry van die siekte te wees.

"Dit sal ook handelsooreenkomste belemmer wat onlangs met lande soos Ghana onderteken is om vleis en vleisprodukte vanaf ons kommunale gebiede uit te voer."

Hy het 'n beroep op die polisie se steun gedoen om die grens te patrolleer en te keer dat dit onwettig deur vee oorgesteek word.

"Ek versoek veeboere en -handelaars om nie vee of potensieel besmette vee onwettig oor die grense van buurlande te bring nie."

Hy het 'n beroep op goewerneurs en boereverenigings gedoen om te help om boere hieroor in te lig.

Schlettwein het aan die begin van die uitbreking verskeie maatreëls afgekondig om die situasie te beredder, wat insluit dat vyf padblokkades opgestel is om die beweging van vee en rou produkte te voorkom. Die ministerie monitor die gebied vir enige tekens van siekte onder vee.

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'Pastore' se vroue ook vas vir sterftes

Kenya Kambowe op Rundu

Die vroue van die twee selfverklaarde pastore uit Kavango-Wes wat van drie moorde en poging tot moord beskuldig word, het Donderdag in die landdroshof op Rundu verskyn nadat hulle in hegtenis geneem is en op dieselfde aanklagte as hul eggenote teregstaan.

Die twee verdagtes, mee. Corneria Sizura Sikukutu (28) en Maria Vihoma Fernando (20) het voor landdros Barry Mufana verskyn, wat hulle borgtog van N$800 elk toegestaan het.

Borgtog is toegestaan aangesien daar geen geriewe is waar die vroue se babas versorg kan word nie.

Die saak is tot 12 Januarie 2022 uitgestel terwyl die polisieondersoek voortduur.

Die duo is op 21 September in hegtenis geneem ná polisieondersoeke hulle verbind het met die drie moorde waarvan hul mans, die selfverklaarde pastore Elia Ihemba (36) en Engelberth Hamutenya (25), beskuldig word. Hulle het na bewering vier lede van hul kerk 'n konkoksie van brandspiritus, asyn, sout en olyfolie ingegee wat via 'n pyp in die slagoffers se rektums toegedien is, waarna drie dood is.

Die verdagtes, mee. Corneria Sizura Sikukutu (28) en Maria Vihoma Fernando (20). FOTO KENYA KAMBOWE

Die ouderdenes is Ntamba Evaristus Ndumba (37), Nangombe Robertha Ndumba (45) en Kapango Hilka Simbaranda (21).

Ons susterkoerant *Namibian Sun* het verneem Sikukutu en Fernando is in hegtenis geneem nadat die oorlewende van dié voorval, me. Rosa Ndumba (39), besonderhede verskaf het.

Pogings om duidelikheid oor die saak by die polisie te kry het teen druktyd nog niks opgelewer nie, maar *Namibian Sun* het van 'n betroubare bron verneem Ndumba het 'n verklaring by die polisie afgelê wat die twee vroue se betrokkenheid as verdagtes in die saak aangevoer het.

Wat die twee selfverklaarde pastore betref, bly hulle in polisieaanhouding nadat hulle op 10 September borgtog geweier is tydens hul eerste verskyning in die Kahenge rondgaandehof.

Borgtog is geweier weens die erns van die saak en omdat dit nie in die belang van regspleging of die openbare belang sal wees nie.

Mnr. Godfrey Shivolo is die staatsaanklaer. Hulle saak is ook tot 12 Januarie volgende jaar uitgestel.

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Appendix B: Consultants' Curriculum Vitae

ENVIRONMENTAL SCIENTIST **André Faul**

André entered the environmental assessment profession at the beginning of 2013 and since then has worked on more than 150 Environmental Impact Assessments including assessments of the petroleum industry, harbour expansions, irrigation schemes, township establishment and power generation and transmission. André's post graduate studies focussed on zoological and ecological sciences and he holds a M.Sc. in Conservation Ecology and a Ph.D. in Medical Bioscience. His expertise is in ecotoxicological related studies focussing specifically on endocrine disrupting chemicals. His Ph.D. thesis title was The Assessment of Namibian Water Resources for Endocrine Disruptors. Before joining the environmental assessment profession he worked for 12 years in the Environmental Section of the Department of Biological Sciences at the University of Namibia, first as laboratory technician and then as lecturer in biological and ecological sciences.

CURRICULUM VITAE ANDRÉ FAUL

Name of Firm	:	Geo Pollution Technologies (Pty) Ltd.
Name of Staff	:	ANDRÉ FAUL
Profession	:	Environmental Scientist
Years' Experience	:	19
Nationality	:	Namibian
Position	:	Environmental Scientist
Specialisation	:	Environmental Toxicology
Languages	:	Afrikaans – speaking, reading, writing – excellent
		English – speaking, reading, writing – excellent

EDUCATION AND PROFESSIONAL STATUS:

B.Sc. Zoology	:	University of Stellenbosch, 1999
B.Sc. (Hons.) Zoology	:	University of Stellenbosch, 2000
M.Sc. (Conservation Ecology)	:	University of Stellenbosch, 2005
Ph.D. (Medical Bioscience)	:	University of the Western Cape, 2018

First Aid Class A	EMTSS, 2017
Basic Fire Fighting	EMTSS, 2017

PROFESSIONAL SOCIETY AFFILIATION:

Environmental Assessment Professionals of Namibia (Practitioner)

AREAS OF EXPERTISE:

Knowledge and expertise in:

- Water Sampling, Extractions and Analysis
- Biomonitoring and Bioassays
- Biodiversity Assessment
- Toxicology
- Restoration Ecology

EMPLOYMENT:

2013 - Date	:	Geo Pollution Technologies – Environmental Scientist
2005 - 2012	:	Lecturer, University of Namibia
2001 - 2004	:	Laboratory Technician, University of Namibia

PUBLICATIONS:

Publications:	5
Contract Reports	+150
Research Reports & Manuals:	5