

APP-006634

**CONSTRUCTION AND OPERATIONS OF A FUEL RETAIL FACILITY AT THE
ELISENHEIM LIFESTYLE ESTATE, WINDHOEK**

ENVIRONMENTAL MANAGEMENT PLAN



Prepared by:



Prepared for:



November 2025

Project:	CONSTRUCTION AND OPERATIONS OF A FUEL RETAIL FACILITY AT THE ELISENHEIM LIFESTYLE ESTATE, WINDHOEK: ENVIRONMENTAL MANAGEMENT PLAN	
Report:	Final	
Version/Date:	November 2025	
APP No:	APP-006634	
Prepared for: (Proponent)	Petrosol Petroleum Solutions CC P O Box 654 Otjiwarongo	
Lead Consultant	Geo Pollution Technologies (Pty) Ltd PO Box 11073 Windhoek Namibia	TEL.: (+264-61) 257411 FAX.: (+264) 88626368
Main Project Team:	André Faul (B.Sc. Zoology/Biochemistry); (B.Sc. (Hons) Zoology); (M.Sc. Conservation Ecology); (Ph.D. Medical Bioscience) Ernest Pelsner (B.Sc. Zoology/Microbiology); (B.Sc. (Hons) Environmental Science); (M.Sc. Environmental Science) Johann Strauss (BA. Geography/Psychology/Environmental Management)	
Cite this document as:	Faul A; Pelsner E; Strauss J; 2025 November; Construction and Operations of a Fuel Retail Facility at the Elisenheim Lifestyle Estate, Windhoek: Environmental Management Plan	
Copyright	Copyright on this document is reserved. No part of this document may be utilised without the written permission of Geo Pollution Technologies (Pty) Ltd.	

TABLE OF CONTENTS

1	INTRODUCTION	1
2	MANAGEMENT OF IMPACTS	2
2.1	ENVIRONMENTAL MANAGEMENT PLAN	2
2.1.1	<i>Planning.....</i>	2
2.1.2	<i>Employment.....</i>	4
2.1.3	<i>Skills, Technology and Development.....</i>	5
2.1.4	<i>Revenue Generation.....</i>	6
2.1.5	<i>Fuel Supply.....</i>	7
2.1.6	<i>Demographic Profile and Community Health</i>	8
2.1.7	<i>Health, Safety and Security</i>	9
2.1.8	<i>Traffic.....</i>	10
2.1.9	<i>Air Quality Related Impacts</i>	11
2.1.11	<i>Fire</i>	12
2.1.12	<i>Noise</i>	13
2.1.13	<i>Waste production.....</i>	14
2.1.14	<i>Ecosystem and Biodiversity Impact.....</i>	15
2.1.15	<i>Groundwater, Surface Water and Soil Contamination.....</i>	16
2.1.16	<i>Visual Impact.....</i>	17
2.1.17	<i>Cumulative Impact.....</i>	18
2.2	ENVIRONMENTAL MANAGEMENT SYSTEM	19
3	CONCLUSION.....	19

LIST OF FIGURES

FIGURE 1-1	PROJECT LOCATION	1
------------	------------------------	---

1 INTRODUCTION

Petrosol Petroleum Solutions CC (the Proponent) intends to construct and operate a fuel retail facility at the Elisenheim Lifestyle Estate, Windhoek (Figure 1-1). Once established, the facility will aim to ensure a reliable supply of fuel to residents in the surrounding area. The design, construction and operation of the facility will be in accordance with South African National Standards (SANS) as prescribed by Namibian legislation.

An environmental clearance certificate (ECC) for the proposed project is required as per the Environmental Management Act, Act No. 7, of 2007 (EMA). The Proponent appointed Geo Pollution Technologies (Pty) Ltd (GPT), as independent environmental consultant, to assist with the necessary studies to determine the potential environmental impacts, and ultimately whether an ECC may be granted for the fuel retail site. To achieve this, an environmental impact assessment (EIA) was undertaken to determine the potential positive and negative impacts of the Proponent's proposed exploration activities, on the environment. This report presents the environmental management plan (EMP), which outlines measures to prevent or mitigate potential negative environmental impacts while enhancing the project's positive outcomes.

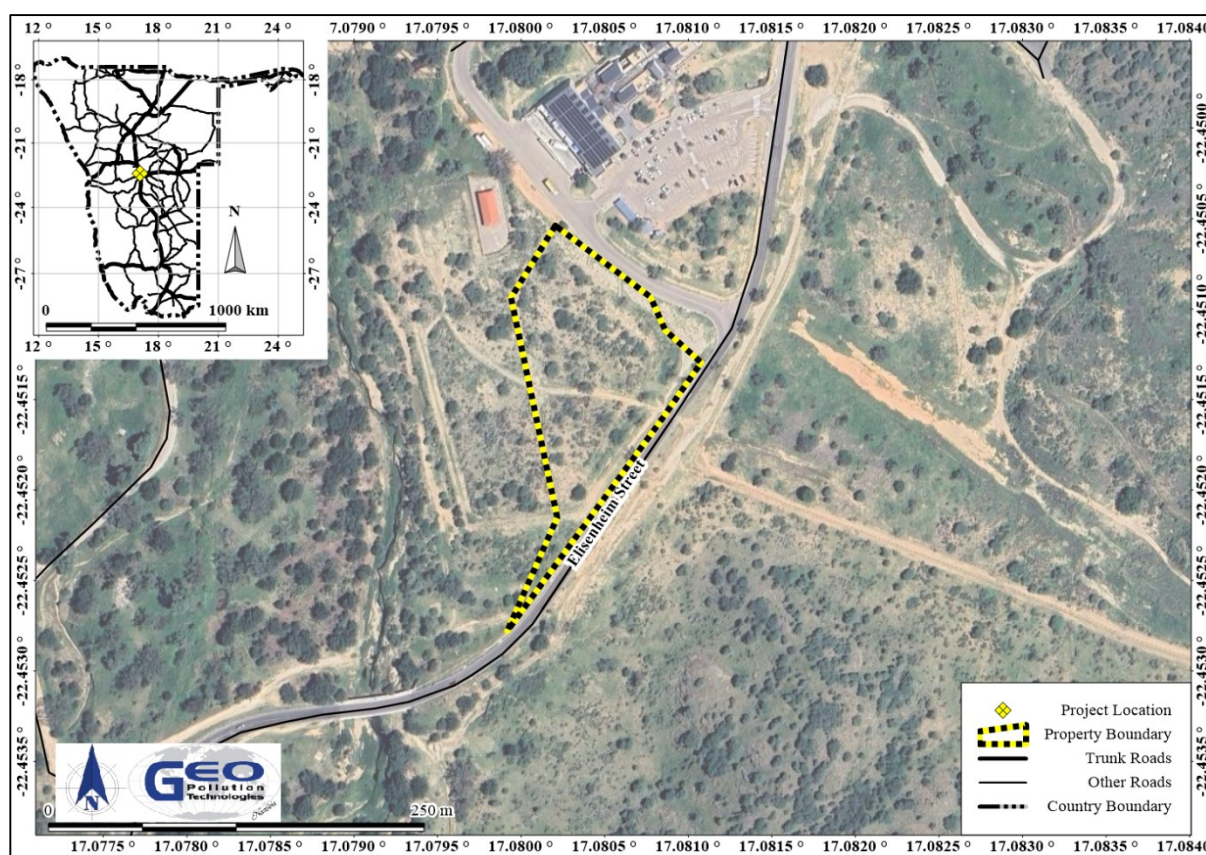


Figure 1-1 Project location

2 MANAGEMENT OF IMPACTS

The purpose of this section is to present an EMP outlining preventative and mitigating measures, based on the identified impacts.

2.1 ENVIRONMENTAL MANAGEMENT PLAN

The EMP provides management options to ensure impacts of the facility is 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 descriptions below. These management measures should be adhered to during the various phases of the construction and operations of the facility. This section of the report can act as a stand-alone document. All personnel taking part in the construction and operations of the facility should be made aware of the contents in this section.

The objectives of the EMP are:

- ◆ to include all components of construction activities (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 construction and operational personnel in applying such controls; and
- ◆ to ensure that appropriate environmental training is provided to responsible construction and 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.

2.1.1 Planning

During the phases of planning for construction, operations and decommissioning of the facility, it is the responsibility of 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 (maintenance) and operations of the facility are in place and valid.
- ◆ 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 (HSE) Coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.
- ◆ Make provisions to have a community liaison officer on site who will handle complaints and community input, and through whom, where reasonable, monitoring data can be requested. Communicate the contact details of the community liaison officer to interested and affected parties when the project is initiated.
- ◆ Have the following on site to deal with all potential emergencies:
 - Emergency response plan and HSE manuals;
 - Adequate protection and indemnity insurance cover for incidents;
 - Relevant safety standards;
 - Procedures, equipment and materials required for emergencies.

- ◆ If one has not already been established, 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.
- ◆ Prepare and submit environmental monitoring reports as per the conditions of the ECC.
- ◆ Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the ECC prior to expiry.

2.1.2 Employment

During the construction phase, both skilled and unskilled labour will be required for earthworks and the development of the necessary infrastructure. Unskilled labour will be sourced locally where possible, while specialised contractors will be appointed for technical work to ensure compliance with safety and engineering standards.

Once operational, the facility will continue to create employment opportunities through the appointment of pump attendants, shop staff, and maintenance personnel. Skilled contractors from within Namibia will be utilised for specialised maintenance tasks, while unskilled labour may be sourced from the local community.

Desired Outcome: Provision of employment to local Namibians.

Actions

Enhancement:

- ◆ The Proponent must employ local Namibians where possible.
- ◆ 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:

- ◆ Bi-annual summary report based on employee records.

2.1.3 Skills, Technology and Development

During both the construction and operational phases, training will be provided to a portion of the workforce. This will enable the transfer of skills to unskilled labourers for general tasks, while also ensuring that contractors and employees are familiar with safety and operational requirements. The technologies to be implemented at the facility, although standard in the petroleum retail sector, may be relatively new to the local workforce and will therefore support their development and future employability.

Desired Outcome: To see an increase in skills of local Namibians, as well as development and technology advancements in associated industries.

Actions

Enhancement:

- ◆ If the skills exist locally, contractors must first be sourced from the town, then the region and then nationally. Deviations from this practise must be justified.
- ◆ Skills development and improvement programs to be made available as identified during performance assessments.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Record should be kept of training provided.
- ◆ Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.
- ◆ Bi-annual summary report based on records kept.

2.1.4 Revenue Generation

The project will contribute to national and local revenue streams during the construction and operational phases. During the construction phase, wages and salaries will be paid to both skilled and unskilled workers, creating short-term income opportunities. In the operational phase, the employment of skilled and professional staff will be permanent, with their wages and salaries contributing to increased household spending power in the local economy. The retailing of fuel will generate revenue through taxes and levies paid to the national treasury, while the convenience store and associated services will further support the circulation of money within the community through the sourcing of goods and services.

Desired Outcome: Contribution to national treasury and remuneration in accordance with Namibian law

Actions

Enhancement:

- ◆ The Proponent must employ or contract local Namibians where possible.
- ◆ Payment of taxes, levies, salaries, etc. in accordance with Namibian law.
- ◆ Sourcing of local goods and services as far as is practically possible.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Bi-annual summary report based on employee records.

2.1.5 Fuel Supply

The facility will contribute to ensuring a reliable and convenient supply of fuel to the residents of the Elisenheim Lifestyle Estate, surrounding communities and local businesses.

Desired Outcome: Ensure a secure fuel supply remains available.

Actions

Enhancement:

- ◆ Ensure compliance to the petroleum regulations of Namibia which specify adherence to SANS standards for fuel retail facilities.
- ◆ Proper management to ensure constant and reliable supply.
- ◆ Record supply problems and take corrective actions.
- ◆ Communicate any fuel shortages and expected delays in supply at a visible location on site.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

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

2.1.6 Demographic Profile and Community Health

The facility will rely on labour for both construction and operational activities. Given the relatively limited scale of the project, it is not anticipated that the development will alter the demographic profile of the local community. During construction and operations, standard occupational health and safety measures will be implemented to protect employees, while awareness and training programmes will help reduce risks associated with communicable diseases and social challenges, sometimes linked to the broader fuel and transport sectors. Spills and leaks may present risks to members of the public especially if groundwater is polluted.

Desired Outcome: To prevent the in-migration and growth in informal settlements and to prevent the spread of diseases such as HIV/AIDS.

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.
- ◆ Bi-annual summary report based on educational programmes and training conducted.
- ◆ Bi-annual report and review of employee demographics.

2.1.7 Health, Safety and Security

Activities associated with both the construction and operational phases will rely on human labour and will therefore expose workers to certain health and safety risks. During construction, risks may include those linked to earthworks, infrastructure development, and the presence of moving vehicles and machinery. In the operational phase, the handling of petroleum products will present the main risks to employees, such as exposure to hazardous chemicals through inhalation or skin contact. Health and safety measures, including training, personal protective equipment, and adherence to the EMP, will be implemented to minimise these risks. Security risks will also need to be managed, with measures put in place to prevent unauthorised entry, theft, and potential acts of sabotage.

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

Actions

Prevention:

- ◆ 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 (personal protective equipment (PPE), flammable etc.).
- ◆ All health and safety standards specified in the Labour Act should be complied with.
- ◆ Clearly label dangerous and restricted areas as well as dangerous equipment and products, especially during the construction phase.
- ◆ Equipment on site must be locked away or placed in a way that does not encourage criminal activities (e.g. theft).
- ◆ Provide all employees with required and adequate PPE.
- ◆ Ensure that all personnel receive adequate training on operation of equipment/handling of hazardous substances.
- ◆ Implementation of maintenance register for all equipment and fuel / hazardous substance storage areas.
- ◆ 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.
- ◆ Security procedures and proper security measures must be in place to protect workers and clients.
- ◆ Develop emergency response plans for all possible health, safety and security impacts and appoint responsible personnel in key positions to activate and oversee such plans when required.
- ◆ Conduct regular health checks and medical surveillance of staff exposed to hazardous substances, in line with occupational health guidelines.

Mitigation:

- ◆ For all emergency situations, the appropriate emergency response plan must be implemented as soon as possible in order to minimize the magnitude of impacts or prevent such impacts from developing into more severe impacts.
 - ◆ For security incidents, ensure proper reporting, investigation, and follow-up actions to strengthen future prevention measures.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Any incidents must be recorded with action taken to prevent future occurrences.
- ◆ A report should be compiled bi-annually of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

2.1.8 Traffic

The presence of the facility will result in an increase in traffic flow in the area, particularly associated with customer vehicles and the periodic delivery of fuel by road tankers. This may increase the risk of traffic incidents, especially during fuel offloading activities. During the construction phase, temporary traffic impacts may also occur as a result of heavy vehicles accessing the site for the delivery and removal of construction materials and equipment. These impacts will be managed through appropriate traffic control measures and coordination with the relevant authorities to ensure safe access to and from the site.

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.
- ◆ Schedule fuel deliveries and construction vehicle movements outside peak traffic hours where possible.
- ◆ Tanker trucks collecting and delivering fuel should not be allowed to obstruct any traffic.

Mitigation:

- ◆ If any traffic impacts are expected, traffic management should be performed.
- ◆ Ensure enough pump attendants are on duty when more patrons than usual are expected, such as before fuel price increases, come into effect.

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 bi-annually of all incidents reported, complaints received, and action taken

2.1.9 Air Quality Related Impacts

During the operational phase, fuel vapours will be released into the atmosphere during the refuelling of underground storage tanks as well as at the dispensing points. Prolonged exposure to such vapours may have carcinogenic effects. During the construction phase, dust will be generated where soil surfaces are exposed, which may temporarily affect local air quality.

Desired Outcome: To prevent health impacts related to reduced air quality.

Actions

Mitigation:

- ◆ Employees should be informed about the dangers of fuel vapours.
- ◆ Vent pipes must be properly placed as per SANS requirements.
- ◆ Dust masks should be provided to employees where dust impacts are expected and dust suppression by means of water implemented.
- ◆ Refuelling activities should be supervised to minimise spillage and unnecessary vapour release.
- ◆ Engines of delivery trucks and construction vehicles should not be left idling unnecessarily on site.
- ◆ All fuel storage and dispensing equipment should be maintained to prevent leaks and excessive vapour emissions.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Any complaints received regarding fuel vapours or dust should be recorded with notes on action taken.
- ◆ Keep a maintenance and inspection log for vent pipes and vapour recovery systems.
- ◆ All information and reporting to be included in a bi-annual report.

2.1.11 Fire

Construction and operational activities may increase the risk of fires. Unleaded petrol is highly flammable and, as a static accumulator, may ignite if handled incorrectly.

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

Actions:

Prevention:

- ◆ A holistic fire protection and prevention plan must be developed for the site and it should specifically take into account flammable products stored on site. This plan must include an emergency response plan, firefighting plan and a spill recovery plan and should have dedicated assigned personnel to oversee their development and implementation.
- ◆ Firefighting equipment must be maintained and regularly serviced.
- ◆ Regular personnel training (firefighting, fire prevention and responsible housekeeping practices). The importance of grounding portable fuel tanks, and only dispensing of fuel into authorised containers, must be made clear.
- ◆ Ensure all chemicals are stored strictly according to MSDS and SANS instructions. This include segregation of incompatible products.
- ◆ Maintain regular site, mechanical and electrical inspections and perform regular maintenance.
- ◆ Clean all spills/leaks without delay and dispose of any contaminated material according to their MSDS requirements and at suitable locations to prevent the accumulation of flammable or explosive products on site.
- ◆ For fuel storage, 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) and SANS standards for operation and maintenance of the consumer fuel installation should be followed.
- ◆ Install and maintain clearly marked emergency shut-off switches at fuel dispensing points.
- ◆ Ensure adequate water supply is available on site for firefighting purposes.
- ◆ Conduct fire drills at least regularly to test response readiness.

Mitigation:

- ◆ For any fire related emergency situation, the appropriate emergency response plan must be implemented as soon as possible in order to minimise the magnitude of impacts or prevent such impacts from developing into more severe impacts.

Responsible Body:

- ◆ Proponent

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 bi-annually of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.

2.1.12 Noise

Noise pollution will be generated by heavy and light motor vehicles accessing the site to offload fuel or refuel. During the construction phase, noise will result from heavy vehicles transporting materials, earthmoving machinery, and general building activities.

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

Actions

Prevention:

- ◆ Follow Health and Safety Regulations of the Labour Act and World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment and not to cause a nuisance at nearby receptors.
- ◆ All machinery must be regularly serviced to ensure minimal noise production.
- ◆ Keep volume of public address systems on a level where neighbours are not impacted on.
- ◆ Manage noise caused by clients – loud music etc.
- ◆ Restrict construction activities that generate excessive noise to daytime working hours.

Mitigation:

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

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Health and Safety Regulations of the Labour Act and WHO
- ◆ Maintain a complaints register.
- ◆ Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.

2.1.13 Waste production

Waste will be produced during the construction and operational phases of the facility. This will include building rubble, hazardous waste associated with the handling of hydrocarbon products as well as maintenance waste such as building rubble and discarded equipment contaminated by hydrocarbons. Contaminated soil and water are also considered as hazardous waste. In addition, domestic waste will be generated by the convenience shop and related operations. Waste presents a contamination risk and, if not removed regularly, may become a fire hazard.

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 waste storage facilities are available.
- ◆ Train employees and contractors in proper waste segregation and handling procedures.
- ◆ Establish agreements with licensed waste contractors for collection and safe disposal.
- ◆ Ensure waste cannot be blown away by wind.
- ◆ Prevent scavenging (human and non-human) of stored waste.

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).
- ◆ Contaminated soil from spills should be excavated immediately and disposed of at an approved hazardous waste facility.
- ◆ Keep records of recycling and recovery initiatives to demonstrate efforts to reduce landfill disposal.
- ◆ See the MSDS available from suppliers for disposal of contaminated products and empty containers.
- ◆ Liaise with the town council 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.
- ◆ All information and reporting to be included in a bi-annual report.

2.1.14 Ecosystem and Biodiversity Impact

The site is situated at the Elisenheim Lifestyle Estate, where noise impacts will occur during both construction and operations, particularly from vehicles and machinery. As fauna and flora are currently present on the site, their removal will be required during site clearing, resulting in a minor loss of biodiversity at a local scale. The probability of new habitats being created for fauna and flora to establish within the facility once operational will be low. Ecosystem and biodiversity impacts will therefore primarily be associated with the removal of existing vegetation and potential pollution of the surrounding environment.

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

Actions.

Prevention:

- ◆ Educate all contracted and permanent employees on the value of biodiversity.
- ◆ Clearly demarcate construction boundaries to avoid unnecessary clearing beyond the designated footprint.
- ◆ Incorporate large Camel-thorn trees, and other protected species on site, into the design of the facility as far as is practically possible.

Mitigation:

- ◆ Contain construction material and activities on site.
- ◆ Obtain permits for the removal of any protected species during site clearing.
- ◆ 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.
- ◆ Prevent scavenging of waste by fauna.
- ◆ The establishment of habitats and nesting sites at the facility should be prevented where possible.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Any ecologically significant events or sightings to be included in a bi-annual report.

2.1.15 Groundwater, Surface Water and Soil Contamination

Operations will entail the storage and handling of hydrocarbons such as fuels and lubricants. These materials may contaminate surface water, soil, and groundwater. Contamination may result from failing storage facilities and reticulation systems, or from spills and leaks associated with fuel handling, including overfills. During the construction phase, spills and leaks may also occur while hydrocarbons are used or transported on site.

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

Actions

Prevention:

- ◆ Proper training of operators must be conducted on a regular basis (fuel handling, spill detection, spill control).
- ◆ 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.
- ◆ Underground storage tanks and pipelines must be fitted with leak detection systems and monitored routinely.
- ◆ Regular integrity testing of tanks, pipelines, and oil–water separators must be performed in accordance with manufacturer and regulatory requirements.
- ◆ Surfactants (soap) should not be allowed to enter the oil water separator as this will decrease its efficiency.
- ◆ The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.

Mitigation:

- ◆ Any spillage of more than 200 l must be reported to the Ministry of Industries, Mines and Energy.
- ◆ Spill clean-up means must be readily available on site as per the relevant MSDS and all spills must be cleaned up immediately.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Daily tank inspections and dips to detect product loss due to leaks as soon as possible.
- ◆ 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 Industries, Mines and Energy.

2.1.16 Visual Impact

The development of the facility will have a visual impact on the surrounding area, affecting both the aesthetic appearance and, over time, the integrity of the structures. During the operational phase, general upkeep and maintenance will be important to reduce negative visual impacts and to ensure the longevity of the buildings and infrastructure. Future upgrades or improvements will contribute positively to the overall visual character of the facility.

Desired Outcome: To minimise aesthetic impacts associated with the facility and prevent lighting from being a visual disturbance.

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.
- ◆ Lighting should be directed towards the facility and away from residents where possible.
- ◆ Minimum lighting necessary for operations to be used at night. The installation of auto-dimming lights when no movement is detected are desirable.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ A report should be compiled every bi-annually of all complaints received and actions taken.

2.1.17 Cumulative Impact

Possible cumulative impacts will arise during both the construction and operational phases of the facility. Construction activities may temporarily increase traffic and noise in the immediate area due to the movement of heavy vehicles and machinery. During the operational phase, cumulative impacts will include increased traffic and associated noise linked to fuel deliveries and customer vehicles accessing the site.

Desired Outcome: To minimise all cumulative 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 bi-annual 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.

2.2 ENVIRONMENTAL MANAGEMENT SYSTEM

The Proponent could implement an Environmental Management System (EMS) for their operations. An EMS is an internationally recognised 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;
- ◆ Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS; and
- ◆ The EMP.

3 CONCLUSION

The EMP 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 environment management system in conjunction with the EMP. All operational personnel must be taught the contents of these documents.

Should the Ministry of Industries, Mining and Energy and Directorate of Environmental Affairs (DEA) in the MEFT find that the impacts and related mitigation measures, which have been proposed in this report, are acceptable, the necessary authorisations and ECC may be granted to the Proponent. The ECC issued, based on this document, will render it a legally binding document which should be adhered to.