ENVIRONMENTAL MANAGEMENT PLAN (EMP)
PROPOSED FUEL STORAGE AND DISTRIBUTION FACILITY
ERF 7455, KHOMASDAL, WINDHOEK, KHOMAS REGION

Proponent: ATY Petroleum Investment CC
Prepared For: Ministry of Environment, Forestry and Tourism (MEFT)
Date: March 2026

BY

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EXECUTIVE SUMMARY

This Environmental Management Plan (EMP) has been prepared for the proposed 9,000-litre above-ground petrol storage and distribution facility on ERF 7455, Khomasdal, Windhoek, Khomas Region.

The project constitutes a listed activity and therefore requires an Environmental Clearance Certificate (ECC). This EMP serves as a legally binding operational document detailing impact identification, mitigation measures, monitoring requirements, roles and responsibilities, performance indicators, and reporting mechanisms across all project phases.

Key environmental risks associated with fuel storage facilities include soil and groundwater contamination, fire and explosion hazards, occupational health and safety risks, stormwater pollution, and improper hazardous waste handling. These risks have been assessed using a conservative impact significance methodology.

The EMP demonstrates that, with proper engineering controls, operational discipline, regular monitoring, and emergency preparedness, all identified impacts can be reduced to low residual significance. The EMP therefore supports the environmental acceptability of the proposed development, subject to strict and continuous implementation.

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INTRODUCTION

Josephine Ndishishi an independent environmental consultant was appointed by ATY Petroleum Investment cc to apply for an environmental clearance certificate to the Ministry of Environment, Forestry and Tourism for their fuel storage and distribution facility on Erf 7455 Khomasdal Windhoek.

The proposed development consists of a 9,000-litre above-ground petrol storage tank with a bunded containment system capable of holding 110% of the tank capacity which is reinforced with impermeable concrete slab, it has a dispensing pump system and stormwater diversion structures as well as fire protection equipment. The site is located within an established urban area of Khomasdal. No sensitive environmental features have been identified on or adjacent to the site. The operations of the facility will aid in ensuring a reliable supply of fuel to construction trucks, farm trucks and it will minimize frequent fuel transportation

This EMP serves as a legally binding environmental management tool for the proposed fuel storage facility. It ensures environmental protection, public safety, and regulatory compliance.

Objectives:

- Prevent soil and groundwater contamination

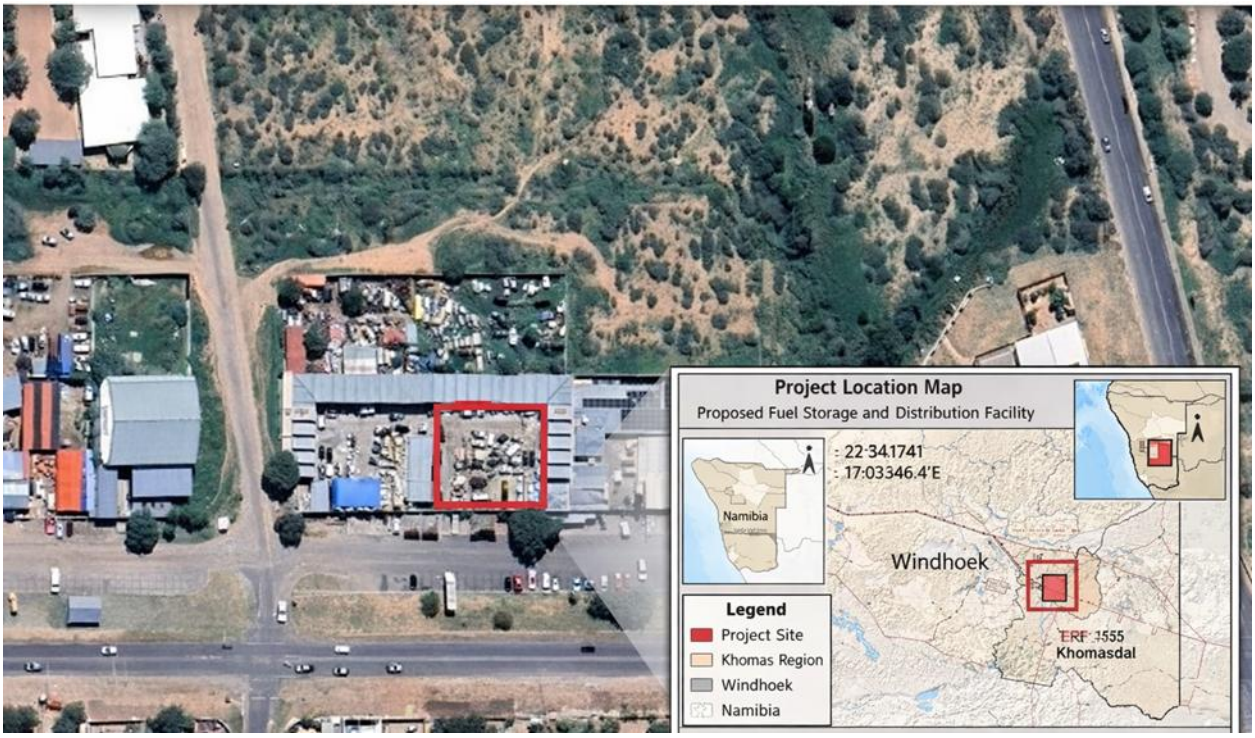
- Protect public health and safety

- Ensure regulatory compliance

- Establish monitoring and reporting procedures

PROJECT LOCATION

The proposed facility will be developed on Erf 7455 Khomasdal, Windhoek, within the jurisdiction of Windhoek municipality. The erf is an industrial land on which its neighboring an auto repair and workshop facility behind, a ministry of safety and security workshop on the left and a logistics company on the right. The map below shows the location of the project



LEGISLATIVE FRAMEWORK

The proposed project is governed by national environmental, energy, water, health, and labour legislation. Compliance with these legal instruments is mandatory throughout the project lifecycle.

Key legal requirements include:

• Environmental Management Act (Act No. 7 of 2007): Requires environmental clearance and implementation of an approved EMP.

• Environmental Impact Assessment Regulations (2012): Prescribes EMP content, monitoring, and reporting obligations.

• Petroleum Products and Energy Act (Act No. 13 of 1990): Regulates storage, handling, and distribution of petroleum products.

• Water Resources Management Act (Act No. 11 of 2013): Protects surface and groundwater resources from pollution.

• Public and Environmental Health Act (Act No. 1 of 2015): Ensures protection of public health from hazardous activities.

• Labour Act (Act No. 11 of 2007): Governs occupational health and safety requirements.

DESCRIPTION OF RECEIVING ENVIRONMENT

Location: Urban setting within Khomasdal, Windhoek.

Climate: Semi-arid, low rainfall, high evaporation.

Geology: Schist and quartzite formations.

Land Use: Commercial.

Environmental Sensitivity: Low ecological sensitivity; however, groundwater protection remains critical.

IMPACT ASSESSMENT METHODOLOGY

Environmental impacts were identified through desktop assessment, site context analysis, and review of fuel storage best practices. Impacts were assessed using the following criteria:

• Nature of impact (positive or negative)

• Extent (site-specific, local, or regional)

• Duration (short-term, medium-term, long-term)

• Intensity (low, medium, high)

• Probability of occurrence

• Reversibility

Significance ratings were assigned before and after mitigation. Mitigation measures were designed following the mitigation hierarchy: avoidance, minimisation, control, and remediation.

Residual impacts after mitigation are expected to be low. Any unforeseen impacts will be managed through adaptive management and corrective action procedures.

PLANNING & DESIGN PHASE MANAGEMENT TABLE

The planning and design phases are critical for preventing environmental impacts at source. Engineering controls implemented at this stage significantly reduce long-term environmental risk.

Aspect	Potential Impact	Mitigation Measures	Monitoring Method	Performance Indicator	Responsibility
Tank	Fuel leakage	Use certified steel tank	Design review	Compliance certificates	Engineer

Aspect	Potential Impact	Mitigation Measures	Monitoring Method	Performance Indicator	Responsibility
specification		designed for petroleum storage		approved	
Bund design	Overflow during spill	Construct bund with ≥110% capacity	Design verification	Bund volume calculations approved	Engineer
Foundation	Soil contamination	Reinforced impermeable concrete slab	Engineering inspection	No cracks or permeability	Engineer
Storm water	Contaminated runoff	Install diversion channels away from bund	Site inspection	Clean stormwater separation	Engineer
Fire safety	Explosion risk	Lightning protection and grounding	Technical approval	Fire compliance sign-off	Engineer

CONSTRUCTION PHASE MANAGEMENT TABLE

Construction impacts are temporary but require strict management to prevent long-term environmental damage.

Aspect	Potential Impact	Mitigation Measures	Monitoring Frequency	Performance Indicator	Responsibility
Excavation	Soil erosion	Limit footprint and stabilise surfaces	Weekly	No visible erosion	Contractor
Dust generation	Air quality degradation	Water spraying and covering materials	Daily	No excessive dust	Contractor
Noise	Disturbance to neighbours	Restrict work to daytime hours	Weekly	No formal complaints	Contractor
Waste	Pollution and littering	Segregated waste bins and licensed disposal	Weekly	Disposal records	Contractor
Hazardous materials	Soil contamination	No onsite fuel storage; spill kits available	Daily	Zero spill incidents	Contractor
Worker safety	Injury or fatality	PPE, toolbox talks, supervision	Daily	Zero serious incidents	Contractor

Environmental induction training is mandatory for all personnel before commencing work.

OPERATIONAL PHASE MANAGEMENT TABLE

The operational phase presents the highest environmental and safety risk due to routine fuel handling activities.

Aspect	Potential Impact	Mitigation Measures	Monitoring Method	Frequency	Responsibility
Fuel storage	Soil contamination	Maintain bund integrity and impermeable slab	Visual inspection	Weekly	Operator

Aspect	Potential Impact	Mitigation Measures	Monitoring Method	Frequency	Responsibility
Tank integrity	Groundwater pollution	Conduct integrity testing and maintenance	Inspection logs	Monthly	Operator
Dispensing	Minor spills	Spill trays and drip pans	Site inspection	Daily	Operator
Fire hazard	Explosion	Maintain fire equipment and no-smoking policy	Equipment checks	Quarterly	Operator
Stormwater	Polluted runoff	Keep bund sealed and clean	Inspection	Weekly	Operator
Waste	Improper disposal	Use licensed hazardous waste contractors	Disposal certificates	As required	Operator
Occupational health	Worker exposure	PPE, MSDS availability, training	Compliance checks	Daily	Operator

DECOMMISSIONING PHASE

Aspect	Impact	Mitigation	Monitoring	Responsibility
Tank removal	Residual fuel	Drain & clean	Supervision	Contractor
Soil contamination	Pollution	Soil testing	Lab results	Consultant
Site restoration	Land degradation	Rehabilitation	Final inspection	Proponent

CONCLUSION & ENVIRONMENTAL COMMITMENT

The proposed fuel storage facility on ERF 7455, Khomasdal, is environmentally acceptable provided strict adherence to this EMP.

ATY Petroleum Investment CC commits to full implementation of all mitigation measures and compliance with all regulatory requirements.