BUSINESS SUCCESS CONSULTING
Environmental Sustainability

SCOPING REPORT (BID)

ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED FUEL SERVICE STATION PROJECT AT ONYATI, ONYAANYA IN OSHIKOTO REGION

Prepared for (Proponent):

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SUBMITTED TO:

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

MINISTRY OF MINES AND ENERGY

MINISTRY OF AGRICULTURE, WATER AND LAND REFORM

PROPONENT: TK. FILLEMON SHUUMBWA NANGOLO

PROJECT INFORMATION

PROJECT TITLE: *Construction of Fuel Service Station at Onyati Village, Onyaanya Constituency of Oshikoto Region*

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LOCATION:

Waypoint	Latitude S	Longitude E
1	-18.217820°	16.412451°
2	-18.217672°	16.412589°
3	-18.217496°	16.412401°
4	-18.217643°	16.412254°

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ACRONYMS:

OTA	Ondonga Traditional Authority
MAWLR DAPEES	Ministry of Agriculture, Water and Land Reform Directorate of Agricultural Production, Extension and Engineering Services
MAWF	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment Forestry and Tourism
MME	Ministry of Mine and Energy
NamWater	Namibia Water Corporation
NBRI	National Botanical Research Institute
NORED	Northern Regional Electricity Distributors
OEC	Office of the Environmental Commissioner
PPE	Personal Protective Equipment
BSC	Business Success Consulting
DEA	Directorate of Environmental Affairs
DSR	Draft Scoping Report
DWA	Directorate of Water Affair
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
F	Forestry Protected
GPS	Global Position Systems
Ha	Hectares
I & APs	Interested and Affected Parties

Section 8

2. ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED CONSTRUCTION OF A SERVICE STATIN AT ONYATI, ONYAANYA CONSTITUENCY OF OSHIKOTO REGION

2.1 EMP Administration

This section of the report serves to prescribe mitigation measures to reduce, limit, eliminate or compensate for impacts, to acceptable or insignificant levels. In setting mitigation measures, the practical implications of executing these measures are considered. With early planning at all level of implementation, both the cost and the impacts can be effectively eliminated or minimized to insignificant levels.

This section also outlines the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. The proponent has extensive experience in managing service station, and therefore will ensure the successful implementation of the EMP and its administration.

2.1.1 Socioeconomic impacts:

TABLE 1: ASSESSMENT OF IMPACTS ASSOCIATED WITH **SOCIOECONOMIC** IMPACTS AND MITIGATION

Socioeconomic Impact	Nature	The proposed service station will support the socio-economic development of the people of Onyati Village. Energy plays a crucial role in economic growth and development. The proposed service station will create employment opportunities during its construction and operational phases. 25 people will be employed during construction and 10 people durinng operation. Positive Impact.
	Extent	Local
	Duration	Permanent: more than 10 years

	Frequency	10 to 100 years.
	Reversibility	
	Likelihood of Occurrence	Highly likely: Is expected to occur in most circumstances
	Mitigation	The proponent should timely and continuously communicate and distribute information to the local community to reduce potential sense of social marginalization, but to make the community understand and participate in the benefits associated with the construction of the service station. For instance: • The contractor should employ local labour from Onyati surounding villages where possible. • The employment criteria and requirements should be formalised. All unskilled labour should be sourced from local communities. • Provisions promoting gender equality pertaining to recruitment should be included within bidding documents concerning the construction. • Promote skills development and training for the employees. The successful operation of the proposed business depents on a competent team of staff, and consequently a success energy sector is crucil for GDP growth.

		• The proponent must ensure that the contractor is indeed following the guidelines as prescribed in this EMP.
	Responsible party	Proponent

2.1.2 Air Quality Impacts

TABLE 2: ASSESSMENT OF **AIR QUALITY** IMPACTS AND MITIGATION

Dust Impacts	Nature	The use of heavy industrial machinery will emit dust that will impact the air quality. Dust might also arise during the excavation of trenches were the foundation will be laid, the clearing of vegetation and levelling of land will also result in dust. The air quality can also be impacted during operation. The hydrocarbon vapours contains volatile organic compounds, which harm human health and contribute to ozone pollution. Negative impact.
	Extent	Site specific. Depending on the wind speed
	Duration	Short term
	Frequency	Less than a year
	Reversibility	This impact is reversible: naturally
	Likelihood of Occurrence	Likely to occur
	Mitigation	• Dust suppression techniques should be employed if the specific activity is likely to create dusty atmospheric conditions in excess of the periodic extremes.

		• Avoid activities that create excessive dust on extremely windy days. Personnel are required to wear personal protection equipment (PPE) such as dust masks if excessive dust is created for prolonged working periods. • Using water to suppress dust is not an option due to water shortage, but can be limited to the vehicle tracks only. • Employees should not be exposed to prolonged and excessive hydrocarbon vapours without protective gears • Vehicles and equipment should not be left with running engines while idling during construction. • Comply with EMP
	Responsible party	SHE officer and Site Manager

2.1.3 Noise Impacts:

TABLE 3: ASSESSMENT OF IMPACTS ASSOCIATED WITH NOISE IMPACTS AND MITIGATION

Noise impact	Nature	Construction vehicles and equipment such as Loader Backhoes, Concrete mixer, other machineries used in the construction phase can be a nuisance and disturbance. Negative impact
	Extent	Site specific
	Duration	Short term
	Frequency	Less than a year

	Reversibility	Noise will have an impact on employees, residents and animals such as birds and reptiles. Birds are known to abandon their nests if subjected to continuous noise. However they can return if the noise stops. Hence, this impact is reversible: naturally
	Likelihood of Occurrence	Likely
	Mitigation	• Noise should be reduced by switching off machines that are not used and at sleeping hours. • All employees on site must be equipped with proper PPE (ear plugs, ear mufflers) to be used when the noise above 80 Hz. • Service equipment and trucks regularly to avoid excess noice. • Comply with EMP.
	Responsible party	SHE officer and Site Manager

2.1.4 Sewage

TABLE 4: ASSESSMENT OF IMPACTS ASSOCIATED WITH SEWAGE AND MITIGATION

Sewage impact	Nature	Sewage will be generated by the service station ablution facilies. It is therefore very important to construct appropriate infrastructure for the management of this type of waste. Failure to manage waste properly will result in pollution and this might have a detrimental impact on the people's well-being and the quality of the environment, especially

		those that live in the vicinity of the development. Negative impact
	Extent	Local
	Duration	Long term
	Frequency	Less than a year
	Reversibility	The impact is Reversible: artificially
	Likelihood of Occurrence	Likely: Will probably occur during the life of the project
	Mitigation	• The project must install storm water infrastructure to maintain exisiting natural water flow channels. • A Septic tank should be constructed and all sewer drainage system should be constructed and connected to that septic tank. • The Service Station should also apply for Waste Water Discharge Permit from the Department of Water Affairs. • The sewer lines should be inspected regularly to look for any leakages. • A registered contracted should be hired to remove the solid waste, to prevent overload /overflow, and to do maintenance. • Developing a Sewerage Waste Management Plan.
	Responsible party	SHE officer, Site Manager, and Proponent

2.1.5 Health and Safety Impacts:

TABLE 5: ASSESSMENT OF IMPACTS ASSOCIATED WITH HEALTH AND SAFETY AND MITIGATION

Health and safety	Nature	Firstly, the potential impacts on human health and safety resulting from project activities could include occupational accidents and injuries, vehicle accidents, exposure to weather extremes, adverse health effects from dust generation and emissions, and contact with hazardous materials. Secondly, hydrocarbons are hazardous and hence the inhalation of fumes should be prevented. Fuel, oil spills and water at the service station can put workers and customers at the risk falling. Thirdly, the use of compressed air to fill tires can also be dangerous. Although it is not common, tyre explosion can be extremely dangerous to the employees. High pressure from the air compressor can also shoot small objects from the floor that can pierce people. Fourthly, theft and robbery put the lives of employees of service stations at risk. Measures should be put in place for their safety. Negative
	Extent	Site specific
	Duration	Medium term
	Frequency	Less than a year
	Reversibility	
	Likelihood of Occurrence	Rare

	Mitigation	• The intersection of the access road to the service station site must be designed and submitted to the Roads Authority for approval before actual construction. • Procedures for dealing with injuries or accidents must be in place and all contact details for emergency personnel should be available. • There should be a compulsory safety induction programme (tool box talk) for all employees. • Proper PPE should be issued to avoid injury or death. • The employees should be well oriented with the Health and Safety plan. The service should also be kept tidy, and floors must be kept dry to avoid slippery related injuries. • Comply with EMP
	Responsible party	SHE officer and Site Manager

2.1.6 Fire Risk and Control

TABLE 6: ASSESSMENT OF IMPACTS ASSOCIATED WITH FIRE RISK AND MITIGATION

Fire Risk and Control	Nature	Hydrocarbons are extremely flammable. Fire explosion should be prevented at all costs during the operation of service station.
	Extent	Site specific
	Duration	Medium term

	Frequency	Less than a year
	Reversibility	
	Likelihood of Occurrence	Rare
	Mitigation	• Fuel is extremely flammable. All fuel should be handled according to Material Safety Data Sheet instructions. • SANS requirements should be adhered to in order to prevent fire explosion. • Comply with EMP
	Responsible party	SHE officer,Site Manager and Proponent

2.1.7 Solid and Harzadous Waste:

TABLE 7: ASSESSMENT OF IMPACTS ASSOCIATED WITH SOLID AND HAZARDOUS WASTE MANAGEMENT AND MITIGATION

Solid and hazardous waste management	Nature	Potential impacts from improper housekeeping practices during construction such as illegal disposal of waste to land could contaminate and pollute the soil which in turn could pollute the Environment and the visual appearance. Solid waste such as lumber, steel scrap, plastics, cement bags, bricks, general rubbish and domestic waste will be generated during the construction phase. There is a potential environmental contamination and degradation from waste on site. Negative impact.
	Extent	Site Specific
	Duration	Medium term: months, less than a year
	Frequency	Less than a year

	Reversibility	Waste produced during the construction phase can be reduced by proper housekeeping. Hence it is reversible: artificially
	Likelihood of Occurrence	Possible
	Mitigation	• A skip containers of adequate design and capacity should be provided for solid waste, such as discarded cans and bottles. • Proper facilities for storage and disposal of used and waste oil and gas must also be provided. • The construction site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers should be emptied regularly and removed from site to an approved waste disposal site. • All recyclable waste needs to be taken to the nearest recycling depot. • Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter.

		• Waste may not remain on site after the completion of the project. • Comply with EMP.
	Responsible party	SHE officer and Site Manager

2.1.8 Traffic Congestion

TABLE 8: ASSESSMENT OF IMPACTS ASSOCIATED WITH TRAFFIC CONGESTION AND MITIGATION

Traffic Congestion	Nature	The proposed Onyati fuel service station will have slight effect on the traffic flow along the B1 Main Road as vehicles are expected to slow down when approaching the service station. However the impact will be minimal because of the strategic location of service station near the T –junction, as vehicles are expected to slow down at the junctions anyway. Negative impact.
	Extent	Site Specific
	Duration	Medium term: months, less than a year
	Frequency	Less than a year
	Reversibility	It is reversible: artificially with construction of acceleration and deceleration lanes.
	Likelihood of Occurrence	Possible
	Mitigation	• The project should apply to the Roads Authority to install the application traffic flow control road infrastructure, mechanisms and road signage for road safety. • The traffic flow will also be enhanced by providing sufficient parking space at the station,

		• Constructing of acceleration and deceleration lanes at the B1 main road. • Comply with EMP.
	Responsible party	SHE officer and Site Manager

2.1.9 Soil and undergroundwater pollution

TABLE 9: ASSESSMENT OF IMPACTS ASSOCIATED WITH SOIL AND UNDERGROUNDWATER POLLUTION AND MITIGATION

Soil and undergroundwater Pollution	Nature	The inappropriate storage and handling of hydrocarbon products present a risk to groundwater and soil pollution. Negative impact
	Extent	Local
	Duration	Long term
	Frequency	Less than a year
	Reversibility	
	Likelihood of Occurrence	Rare
	Mitigation	• Fuel tanks and fuel dispensers should be designed and installed in line with SABS and the manufacturer's recommendations. Installation should be done with care as damage can occur during installation. • If the water table is high, a single steel walled tanks or double-walled steel tank, should be installed. • Moreover, suitable sand shall also be used for both bedding and backfilling of steel tanks.

		• Hazardous substances or chemicals should be stored in a specific location on an impermeable surface that is bunded. • Heavy construction vehicles and equipment on site should be provided with a drip tray. • To mitigate the potential impact of groundwater and soil pollution, the ground level surfaces of the project site must be covered with an impermeable material. • The drip trays should be cleaned daily and spillage handled, stored and disposed of as hazardous waste. • Maintenance and washing of construction vehicles should be take place only at a designated workshop area. • The workshop should have an oil-water separator for collected run-off from washing. • Spilled cement and concrete materials should be treated as hazardous waste and disposed of daily in the appropriate hazardous waste containers.
	Responsible party	SHE officer, Site Manager, and Proponent

2.1.10 Biodiversity Loss

TABLE 10: ASSESSMENT OF IMPACTS ASSOCIATED WITH BIODIVERSITY LOSS AND MITIGATION

Biodiversity loss	Nature	There is no protected plant species that were observed onsite. However the site has a few shrubs of *Pechuel-loeschea leubnitziae (locally known as iizimba), two acacia karroo and grass species of Eragrostis trichophora.* Negative impact
	Extent	Site specific
	Duration	Long term (resulting in permanent change in the natural biodiversity on site)
	Frequency	1 to 10 years
	Reversibility	Irreversible: permanent damage
	Likelihood of Occurrence	Highly likely
	Mitigation	• The impact will also be low due to the fact that there is no plant species that is endemic to the area. • The few trees and shrubs will be affected by the development, hence the need to plant more trees in the vicinity to improve the environment. • Comply with EMP.
	Responsible party	SHE officer and Site Manager

2.1.11 Operation within Law Framework

Besides the mitigation measures, the proposed development activities should be carried out within the law framework. For instance, the Hazardous Substances Ordinance, 1974 directs

that the manufacturing, storage, handling and processing of a hazardous substance should be done in line with the ordinance. It also regulate the construction of service stations and facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin. The proponent should implement necessary measure and take precaution throughout the product lifecycle: from receiving, storage, product use and disposal. In cases were special storage facilities are required the Proponent should provide as such.

It is also the responsibility of the proponent to ensure that new regulations that may be introduced by the Ministry of Mines and Energy are adhered to.

Section 9

9. DECOMISSIONING, CONCLUSION AND RECOMMENDATIONS

2.2 9.1 Decommissioning

A separate EIA process should be conducted before considering at all the decommissioning of the project.

2.3 9.2 Conclusion

The proposed construction of Onyati Service Station is an important project to the development goals and aspirations of the receiving local community, region, Namibia as a whole as well as to the proponent.

Overally, the economic benefits of the project outweigh the limited negative impacts on the natural environment. The project is expected to perform positively if all mitigation measures are adhered to.

2.4 9.3 Recommendations

It is recommended **that:**

i. ***The Ministry of Environment, Forestry and Tourism should consider issuing an Environmental Clearance Certificate for the Proposed of a Service Station at Onyati Village in Onyaanya Constituency of Oshikoto Region.***

ii. ***The Proponent, Tatekulu Fillemon Shuumbwa will commission Professional Enginneers and Project Managers to oversee, supervise, monitor and control all activities at the construction site thereby ensuring that the construction work is conducted in an orderly and safe manner, hence safeguarding the environment in the interest of the current and future generations to come.***

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