

ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE OPERATION OF AN EXISTING SCRAP METALS HANDLING FACILITY ON A CERTAIN PORTION OF FARM 404 IN NORTHERN INDUSTRIAL AREA, WINDHOEK, KHOMAS REGION.



LEAD CONSULTANT:

**Mr. Gideon Kalumbu
EnvironClim Consulting Services
P O. Box 40506
Windhoek
Cell: +264 815955643**

PROPONENT:

**Sarel Scrap Metal Dealers cc
P O. Box 81052
Olympia,
Windhoek
Cell: +264 816536874**

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CLIENT	SAREL SCRAP METAL DEALERS CC P O. BOX 81052 OLYMPIA, WINDHOEK CELL: +264 81 6536874
PROJECT CONSULTANT	MR. GIDEON KALUMBU P O BOX 40506 AUSSPANNPLATZ WINDHOEK CELL: +264 81 2705001
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ABBREVIATION

DEAF	Department of Environmental Affairs and Forestry
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
ECO	Environmental Compliance Officer
ECS	EnvironClim Consulting Services
EIA	Environmental Impact Assessment
EMA	Environmental Management Act (No. 7 of 2007)
EMP	Environmental Management Plan
GIS	Geographical Information System
HIV	Human Immunodeficiency Virus
MEFT	Ministry of Environment, Forestry and Tourism
PPE	Personal Protective Equipment
SHE	Safety, Health and Environment
WHO	World Health Organization

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1. OVERVIEW

1.1 INTRODUCTION

Sarel Scrap Metal Dealer cc, hereafter referred to as the proponent is of the intention to operate a scrap metal handling facility on a certain portion of Farm 404 in the Northern Industrial Area in Windhoek, Khomas region. The proponent had entered into a memorandum of agreement with TransNamib (Pty) Ltd, the property owner to lease a certain portion of portion 404. The lease agreement is valid from from the 01 March 2024 until 01 March 2025 and will be renewed on yearly basis.

The envisaged project will contribute enormously to waste reduction within the jurisdiction of Windhoek especially with scrap metals. The project employs about 20 permanent employees who are involve in weighing, sorting compressing, packing and assisting with loading the pellets into containers. The company prioritise the safety of its employees, therefore, regularly training on issues pertaining to safety as well as adherence to PPE guidelines are conducted.

1.2 PROJECT COMPONENTS

The company will mainly focus on collecting ferrous and non-ferrous metals for the purpose of recycling, as well as reselling and processing outside Namibia. The scrap metals are primarily destined for South Africa as well as India market. As an effort to keep the environment clean and uplift the livelihoods of many unemployed people found in the streets of Windhoek the company support those scrap metals collectors who brings their non-ferrous metals such as copper, brass and aluminium products by purchasing such product at the facility. In addition, the company also purchases light and heavy metals scrap metals from companies that owns scrap yards as well as automotive garage.

At the facility the scrap metals are first stock piled and sorted whereby the ferrous and non-ferrous metals are segregated. The heavy metals are packed without being compressed; however, the light metals are compressed into pellets using compressors before being packed into containers. The off-cuts that are generated during the compressing process are treated as waste and they form part of the general waste that is collected on weekly basis the municipality and disposed of at the designated landfill.

2. PROJECT LOCATION

The proposed site is located in Windhoek Northern Industrial area between Ohorongo Cement depot on the west and along the railway line on the east, the site part of the Trans-Namib holding Pty (Ltd) industrial zoned areas that the company is leasing out and is situated approximately 200 meters from the Mariental Bricks Manufacturing site. The area covers an area of approximately 10 942.2 m² and is accessible via the Dortmund Street that branch-out of Hosea Kuutako street when driving from Windhoek Central Business District area (See **Figure 1** below).



Figure 1: Location of the Sarel Scrap Metal Dealers cc in Northern Industrial area, Windhoek, Khomas Region (-22.53614 S, 17.080631 E).

3. PURPOSE OF THE EMP

This Environmental Management Plan (EMP) is a live document that provide the mitigation strategy that outline rational as well as empirical context, monitoring programs, mitigation measures, and management control strategies to condense possible environmental impacts to an insignificant level. Moreover, it provides the roles and responsibility of the persons accountable for the operation of a scrap metal handling facility on a certain portion of Farm 404 in the Northern Industrial Area in Windhoek, Khomas region

4. COMPLIANCE TO THE EMP

This EMP is a legally binding document as given under the provisions of the Environmental Management Act, 2007 (Act No. 7 of 2007). The project proponent and its contractors must therefore adhere to the framework of this document. It should be noted further that the EMP is a living document and is subjected to amendments based on the alteration made towards the environments and new information that may be available in the future, hence it must be reviewed accordingly with the provision of the EMA.

5. LEGAL AND POLICY FRAMEWORK

The proposed project shall be established and operated under the provision of the relevant statutory framework of Namibian and international laws of which Namibia is signatory.

Table 1. Legal Requirements for the proposed project

Legislation	Summary	Applicability
The Namibian Constitution	The Namibian constitution is the supreme law of the country which is committed to sustainable development. Article 95(1) of the Constitution of Namibia states that: - “The State shall actively promote and maintain the welfare of the people by adopting policies aimed at ... The maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future”.	To undertake the EIA in order to maintain the ecological process and diversity of ecosystem.
The Environmental Management Act	The Environmental Management Act No 7 of 2007 aims to promote the sustainable management of the environment and the use of natural resources and to provides for a process of assessment and control of activities which may have significant effects on the environment; and to provide for incidental matters. The acts provide a list of activities that may not be undertake without an environmental clearance certificate.	Generation of Greenhouse Gases by the scrap metals handling facility.

Legislation	Summary	Applicability
	<p>Further, the Act ensures that;</p> <p>Further, the Act ensures that;</p> <ul style="list-style-type: none"> (a) Potential threats are considered timeously (b) A comprehensive stakeholder’s consultation is conducted, and all Interested and affected parties are given an opportunity to comment on the project (c) Decision are robust by considering the above-mentioned activities. 	
<p>Atmospheric Pollution Prevention Ordinance Act (No.11 of 1976)</p>	<p>This Ordinance serves to control air pollution from point sources, but it does not consider ambient air quality. This ordinance is being repealed by the proposed Pollution Control and Waste Management Bill. Any person carrying out a ‘scheduled process’ which are processes resulting in noxious or offensive gases typically pertaining to point source emissions have to obtain a registration certificate from the Department of Health.</p>	<p>Generation of Greenhouse Gases by the scrap metals handling facility.</p>
<p>Draft Pollution Control and Waste Management Bill</p>	<p>This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. The Bill will repeal the Atmospheric Pollution Prevention Ordinance (11 of 1976) when it comes into force. The Bill also provides for noise, dust or odour control that may be considered a nuisance. Further, the Bill advocates for duty of care with respect to waste management affecting humans and the environment and calls for a</p>	<p>Possible fuel spill and leakages may pollute ground and surface water.</p>

Legislation	Summary	Applicability
	waste management licence for any activity relating to waste or hazardous waste management.	
Environmental Policy framework (1995)	This policy subjects all developments and project to environmental assessment and provides guideline for the Environmental Assessment. Its provision mandate that Environmental Assessment take due consideration of all possible impacts and incorporate them in the development or planning stages.	Provision of the EIA and guidelines
The Occupational Safety and Health Act No. 11 of 2007;	<p>Safety: A safety risk is a statistical concept representing the potential of an accident occurring, owing to unsafe operation and/or environment. In the working context “SAFETY” is regarded as “free from danger” to the health injury and to properties.</p> <p>Health: Occupational Health is aimed at the promotion and maintenance of the highest degree of physical, mental and social wellbeing of workers in all occupations. This is done by ensuring that all work-related hazards are prevented and where they occur, managed.</p>	<p>Operation of the scrap metals handling facility has the potential risk of injuries.</p> <p>Provision of clean ablution facility, routine health check-ups for employees, HIV/AIDS awareness etc.</p>
Public Health Act No. 36 of 1919	The Act serves to protect the public from nuisance and states that no person shall cause a nuisance or shall suffer to exist on any land or premises owned	Ensure public safety from noise, dusts, and air pollution.

Legislation	Summary	Applicability
	<p>or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.</p>	
<p>Water Resources Management Act (2013)</p>	<p>This Act provides a framework for managing water resources based on the principles of integrated water resources management. It provides for the management, development, protection, conservation, and use of water resources. Furthermore, any watercourse on/or in close proximity to the site and associated ecosystems should be protected in alignment with the listed principles.</p>	<p>Ensure that the water sources such as river systems are not polluted and implement pollution control mechanism to avoid water pollution.</p>
<p>Water Act No, 54 of 1956</p>	<p>This act states that, all water resources belong to the State. It prevents pollution and promotes the sustainable utilization of the resource. To protect these resources, this act requires that permits are obtained when activities involve the following;</p> <ul style="list-style-type: none"> (a) Discharge of contaminants into water sources such as pipe, sewer, canal, sea outfall and (b) Disposal of water in a manner that may cause detrimental impact on the water resources 	<p>Contaminated water, such as sewage sludge must not be dumped into the water's sources such as river.</p>

Legislation	Summary	Applicability
Petroleum Product and Energy Act No, 13 of 1990 Explosive Act No 26 of 1956	This Act provides a framework for handling and distribution of petroleum products which may include purchase, sale, supply, acquisition, possession, disposal, storage or transportation thereof.	Safe handling of the scrap metals containing petroleum products such as fuel and lubricants.
Labour Act No. 11 of 2007	This Act aims to regulate labour in general and includes the protection of the health, safety and welfare of employees. The 1997 Regulations relating to the Health and Safety of employees at work sets out the duties of the employer, welfare and facilities at the workplace, safety of machinery, hazardous substances, physical hazards, medical provisions, construction safety and electrical safety.	Follow legal labour requirements such as safety, remuneration etc.
Regional Council Act, 1992 (Act No. 22 of 1992)	The Regional Councils Act legislates the establishment of Regional Councils that are responsible for the planning and coordination of regional policies and development. The main objective of this Act is to initiate, supervise, manage and evaluate development at regional level.	Observe the regional by laws
Soil Conservation Act No. 76 of 1969	This act promotes the conservation of soil, prevention of soil erosion.	Coordinate movement of delivery trucks as well as those transporting scrap metals to prevent soil erosion. Ensure conservation of topsoil.

Legislation	Summary	Applicability
Hazardous Substances Ordinance No. 14 of 1974	<p>This ordinance gives provision to control the handling of hazardous substance in all circumstances, such as manufacturing, imports and exporting of these to ensure human and environmental safety.</p>	<p>Handling of products containing chemicals, potential explosion risks and fire.</p>
Word's Best Practises	<p><i>Precautionary Approach Principle</i></p> <p>This principle is worldwide accepted when there is a lack of sufficient knowledge and information about the possible threats to the environment. Hence if the anticipated impacts are greater, then precautionary approach is applied. In this project, there are no eminent uncertainty however in cases when they arise, this approach should be applied.</p> <p><i>Polluter Pays Principle</i></p> <p>This principle ensures that proponents takes responsibility of their actions. Hence in cases of pollution, the proponent bears the full responsibility to clean up the environment.</p>	<p>The operation of the scrap metals handling facility particularly in the area with biodiversity and underground water can be detrimental to the ecosystem and underground water resource. Therefore, precaution must be taken into consideration when handling, cutting and compacting scrap metals.</p> <p>In the event of any pollution of underground water, the proponent must be responsible to compensate for the damages.</p>

6. ROLES & RESPONSIBILITIES

6.1. Environmental Compliance Officer (ECO)

The Ministry of Environment, Forestry and Tourism is the custodian of environmental protection. The Environmental Compliance Officer shall be an appointed Environmental Officer from the Directorate of Environmental Affairs designated to enforce compliance as per the provision of the EMA. The ECO may carry out inspection at any given time to enforce compliance. Depending on his/her work schedule, the ECO shall visit the site proposed for the operation of a scrap metals handling facility on Portion 404 at Northern Industrial Area in Windhoek, Khomas region at whatever time for the purpose of environmental inspection and monitoring.

6.2. The Proponent

Sarel Scrap Metal Dealer cc shall commence the inclusive obligation of environmental management through durable execution of the environmental management plan. Additionally, the company shall be entirely accountable for the implement the following activities.

- Appoint a site Manager;
- Ensures that all workers and contractors are conversant with the Environmental Management Plan (EMP) and are inducted on safety measures related to the operation of a scrap metals handling facility on Portion 404 in Northern Industrial Area, Windhoek.
- Ensure a safe and healthy working environment;
- Monitor the employees works with regard to safety;
- Provide workers with appropriate Personal Protective Clothing (PPE);
- Ensure good environment performance and compliance;
- Appoint an environmental officer or Environmental Practitioner to carry out environmental audits.

6.3. Site Manager

The Site Manager shall represent **Sarel Scrap Metal Dealer cc** and will be in charge for monitoring the daily operations of the scrap metals handling facility and ensure adequate adherence of workers and contractors to the EMP. The Site Manager must ensure that a copy of the EMP is available to all the employees at the facility at all times and all employees are familiar with the EMP.

6.4. Employees and Contractors

All stakeholders, especially employees and contractors must;

- Comply with the EMP;
- Ensure all employees are wearing personal protective clothing at all time when they are at work;
- Report worn out PPE and request for replacement;
- Adhere to the company rules and policies.

7. DISCIPLINARY ACTION

The EMP is a legally binding document. Non-compliance to the EMP must result in punishable legal action against the proponent such as;

- Suspension of work;
- Financial penalties.

The disciplinary action shall be determined as per the provision of EMA and relevant statutory framework. Under Section 27 (4), *Any person who contravenes subsection (3) commits an offence and is on conviction liable to a fine not exceeding N\$500 000 or to imprisonment for a period not exceeding 25 years or to both such fine and such imprisonment”.*

8. THE ENVIRONMENTAL MANAGEMENT PLAN

The magnitude of this EMP is with reference to the scrap metal handling facility on a certain portion of Farm 404 in the Northern Industrial Area in Windhoek and ultimately the decommissioning phase of the proposed development. This EMP is formulated taking into account the Social,

Environmental, Safety and Occupational Health aspects related to the proposed development as detailed in **Table 2** below.

Table 2 : Environmental Management Plan (EMP)

Activity	Objectives
A – Staff Induction	Induction
	Communication
B – Health and Safety	General safety at workplace
	Ablution facilities
	Dust and noise exposure
C – Pollution and Waste Management	Ferrous and non-ferrous material waste, domestic waste
	Emission from vehicle as well as dust and noise
	Fuel spillage and leakages Oil and lubricant leakages
D – Environment	Soil
	Water
	Biodiversity
	Rehabilitation
E – Socio- Economic	Employment
	Alcohol and drug abuse
	Working hours
	Capacity building
	HIV / AIDS
	Traffic

SECTION A: STAFF INDUCTION

Table 3. Staff Induction Mitigation Measures

Environmental or Social Aspects	Objective	Proposed Mitigation Measures	Monitoring Indicators	Responsibility
Staff Induction	To ensure that all staff / employees are accustomed with the requirements of the EMP	<ul style="list-style-type: none"> All employees and contractors must go through an intensive induction course on all the provisions of the EMP. There must be an annual induction course for all the employees. New recruit must not commence work without going through the induction course. 	<p>Induction minutes and attendance register signed by each staff member.</p> <p>Induction report</p>	Management or Site Manager
	Disciplinary	<ul style="list-style-type: none"> Company must adopt a disciplinary system to discipline staff for non-compliance, for instance disposing off ferrous and non-ferrous waste metals in an unacceptable environmental manner etc. Stringent measures must be in place, any employee found 	<p>Disciplinary meetings and actions</p> <p>Disciplinary letters / Warnings</p>	Management or Site Manager

Environmental or Social Aspects	Objective	Proposed Mitigation Measures	Monitoring Indicators	Responsibility
		<p>contravening the provisions of the EMP, must be granted a warning letter.</p>		
	<p>Availability of the EMP on site for ease of reference</p>	<ul style="list-style-type: none"> • Ensure that a copy of the EMP is kept on site at all time and must be accessible 	<p>Physical view of the EMP</p>	<p>Management or Site Manager</p>
<p>Communication</p>	<p>To ensure effective communication</p>	<ul style="list-style-type: none"> • The project must develop a communication strategy • Correspondences must be in writing. • The contact numbers for the Site Manager must be available and must be displayed on the emergency sign boards and at evacuation point in case of emergencies. • There must be an emergency alert system in place for emergency communication. 	<p>Communication Strategy</p> <p>Letters, e-mail, notices, minutes</p> <p>Display of site manager number and emergency numbers.</p>	<p>Management or Site Manager</p>

SECTION B: HEALTH AND SAFETY

Table 4. Health and Safety Measures to be implemented

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
Safety	Adhere to the Health and Safety Regulations, Government Notice 156/1997 (GG 1617).	<ul style="list-style-type: none"> The proponent must develop a health and safety plan; A compulsory safety induction course must be given to all employees. Each employee must be provided with personal protective equipment (PPE) and must be worn at all time during working and when at the facility. Ensure all workers are inducted on the dangers of risks of chemicals and the emergency response; 	<p>Health and safety included and reflected in the induction minutes</p> <p>Visual Inspection</p> <p>Visual Signs available</p>	<p>Certification of completion by approved personnel</p> <p>Visual Inspection</p> <p>Availability of fire extinguishers and evidence on training (e.g. minutes, training pictures etc.).</p> <p>Visible signs</p>	Management or Site Manager

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
Health		<ul style="list-style-type: none"> • There must be clear health and safety signs at designated sites such as, ASSEMBLY POINT, NO SMOKING “DANGER”, “ENTRANCE PROHIBITED” etc. • Employees must NOT be exposed to noise levels above the required -85dB limit over a period of 8 hours. Should the noise level be higher than 85dB, the employer must implement a hearing conservation program such as noise monitoring; • Worker must be provided with appropriate PPE 	Record of hearing loss	Report of health check ups	

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
		<p>such as industrial earmuffs;</p> <ul style="list-style-type: none"> • Ensure provision of safe drinking water. • Construct and maintain adequate, hygienic and user-friendly ablution facilities for all staff; • Separate male and female toilets with a ration of 1:30 and 1:15 for male and females respectively. • Appoint cleaners and rotate cleaning responsibilities. • Inspect ablution facilities regularly. • Supervisors must undergo an occupational health and first training. 	<p>Clean tap water</p> <p>Clean toilets at all time</p> <p>Proof of Certification</p>	<p>Laboratory analysis report</p> <p>Clean toilets at all time</p>	

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
		<ul style="list-style-type: none"> • Maintain an orderly and hygienic levels of handling scrap metals in the work. • Develop and implement work practices to reduces the discharge of contaminants into the work environment: • Provide appropriate PPE to all the personnel as well as providing training on wearing PPE including maintaining PPE; • Encompass operations which may result in direct release of scrap metals into areas where people work such as off- 			

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
		loading/loading zones as wells as compacting area; <ul style="list-style-type: none"> • Ensure that all areas at the facility are well ventilated; 			
Noise	To reduce noise in the surrounding environment	<ul style="list-style-type: none"> • Ensure that the scrap metals compacting machine engine must be off when not in use; • Purchase/hire scrap metals compacting equipment with low noise emission; • Where possible, fit silencers on vehicle equipment; • Operation must be limited to daytime only (08h00-17h00); 	Record of public complaints	Record of public complaints	Management / Site Manager

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
Dust / Air Pollution	Reduction of dust from the scrap metals facility.	<ul style="list-style-type: none"> • Avoid compacting metals during heavy windy conditions. • The scrap metals compacting area and its immediate surrounding must be entirely interlocked to avoid wind condition; • Heap of scrap metals must be arranged in an orderly manner; • Workers must not be exposed to excess dust and should be provided with appropriate PPE such as dust mask and earmuffs; • Adhere to the Labour act, non-toxic human dust 		Record of public complain	Management / Site Manager

Environmental / Social Aspects	Objective	Mitigation Measures	Monitoring Indicators	Monitoring Indicators	Responsibility
		<p>exposure levels may not exceed 5mg/m³ for respiratory dust and 15mg/m³ for total dust;</p> <ul style="list-style-type: none"> • Dust monitoring should be established before operations commence to measure baseline conditions. It should remain active throughout the life of the scrap metals handling facility as well as for a few years post closure to determine the effectiveness of the mitigation measures. 			

SECTION C: POLLUTION CONTROL AND WASTE MANAGEMENT

Table 5. Waste Management Mitigation Measures

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
Emissions	Reduce greenhouse gas (GHG) emissions from crusher and vehicles	<ul style="list-style-type: none"> The compacting equipment must be kept in good working condition and serviced frequently to prevent leakage and emission of pollutants etc. Switch off compacting equipment as well as vehicle engines when they are not operating. The scrap metals compacting equipment and scrap metals delivery vehicles should be carefully selected to include the latest technology that would ensure low carbon emissions. 	Vehicle servicing records books Reports of smoke emissions from machinery Visible signs		Management / Site Manager

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> • Preventative controls for vehicle tailpipe PM10 emissions: <ul style="list-style-type: none"> - minimization of vehicle idling times, - regular maintenance of vehicles according to manufacturer's guidance - use of best available technologies such as the installation of selective catalytic reducers, oxidation catalysts and diesel particulate filters to reduce PM10 emissions. • Uses of low sulphur content fuels are recommended to minimise SO2 emissions from both vehicle tailpipe emissions. 			

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> • Waste containers (bins) should be emptied regularly and removed from site to a recognized and designated municipal waste disposal site. • Enough separate waste containers (bins) for hazardous and domestic/general waste must be provided on site. The waste bins should be clearly marked as such. • The scrap metals handling facility employees as well as contractors should be sensitized to dispose of waste in a responsible manner and not to litter. 			

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> No waste may remain scattered at the facility. 			
Surface and ground water contamination / pollution	To prevent soil and water pollution	<ul style="list-style-type: none"> The scrap metals compacting equipment as well as delivery vehicle that are used for transportation purposes must be in good condition and well serviced to avoid leakages of oils and lubricants; All stationary vehicles and equipment must have drip trays to collect leakages of oils and lubricant; All scrap metals containing oils, lubricants and hydrocarbons must be stored in a proper storage facility with concrete bunds 	Service records Visible drip trays Proper storage with concrete bund surface		Management / Site Manager

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		<p>or impermeable lined materials.</p> <ul style="list-style-type: none"> • Although not expected to be significant, i.e oil drops of less than 500ML, if it occurs, and happened to contaminate soils must be collected and treated with bioremediation waste. • Wastewater may only be disposed of in the natural environment unless the effluent quality guidelines are met. 	Bioremediation chamber		
Oil Spillages	To prevent oil spill from tanks and during re-fuelling	<ul style="list-style-type: none"> • Refuel vehicles at designated filling station in Windhoek that has protected surface covering /geomembrane lining 	Place warning signs	Site inspection and record keeping	Management / Site Manager

Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> Engage the suppliers of consumable such as grease and lubricants upon used to collect and dispose of such waste in an eco-friendly manner. 			

<p>Oil leakage</p>	<p>To prevent fuel leakages</p>	<ul style="list-style-type: none"> • All stationary vehicles and machinery must have drip trays to collect leakages of oils and lubricant; • The scrap metals compacting area should be lined with concrete. • The facility should have an oil-water separator for collection of run-offs from washing. • Oil filters as well as metals which contain oil or lubricants should be stored in marked containers that allow oil to drain but not escape from storage. • Any spills should immediately be contained and cleaned up and the contaminated soil appropriately disposed of. 		<p>Visible monitoring</p>	<p>Management and Site Manager</p>
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Environmental / Social Aspect	Objectives	Mitigation Measures	Monitoring Indicator	Monitoring Indicator	Responsibility
		The receiving environment should then be remedied where necessary to prevent the spill from entering the storm water drainage system.			

SECTION D: ENVIRONMENT

Table 6. Environmental Mitigation Measures to be implemented

Aspect	Objective	Mitigation Measure	Monitoring Indicator	Responsibility
Biodiversity	To protect the flora and fauna	<ul style="list-style-type: none"> • The facility for the operation scrap metals handling facility must be barricaded to avoid safety risk to animals. • Prevent the destruction of protected plant species founds in the surrounding area. • Prevent the employees from collecting firewood. • No workers should be permitted to collect plant materials, hunt or snare to capture wild animals. 		Management / Site Manager

Aspect	Objective	Mitigation Measure	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> • Provide electricity or gas for cooking and heating in order to discourage fire wood harvesting. • Any suspicious activities pertaining to illegal hunting/collecting of forestry products should be reported to the Anti-poaching unit with the MEFT and/or the nearest police. • No killing of animals including crawling animals unless it poses danger to human life. • No domestic animals are allowed at the facility. 		
Soil Erosion	To prevent soil erosion	<ul style="list-style-type: none"> • The scrap metal operational activities should be confined to targeted sites only. • Movement of all vehicles and delivery trucks must strictly be within the project site; • Heaps of baled and compacted scraps metals should be placed in designated areas. 		Management / Site Manager
Soil Compaction	To prevent soil compaction at the surrounding areas.	<ul style="list-style-type: none"> • Delivery tucks as well as support service vehicles should be confined to existing roads and tracks. • Implement a road and track management. 		Management / Site Manager
Topsoil	Avoid keeping the scrap metals for an	<ul style="list-style-type: none"> • Do not allow scrap metals to be on the ground for a period of more than a one year, the priority should 	Trial sites	Management / Site Manager

Aspect	Objective	Mitigation Measure	Monitoring Indicator	Responsibility
	Extended period on the ground.	be given to allow natural grass to grow over the area where necessary. This will keep the soil biologically active.		
Water Resource	Conservation of water resource	<ul style="list-style-type: none"> • Connect water to existing municipal water networks and keep up to date with municipal bills. • No pollution or contaminant should be allowed to enter the nearby watercourse such as riverbeds. • Recycle water and encourage the re-use of water. • Monitor and control water usage and minimise if possible. • Monitoring points and parameters are recommended for providing an early warning system. 	Valid water abstraction permit.	Management / Site Manager
Visual and Sense of Place	Maintain aesthetic value	<ul style="list-style-type: none"> • The scrap metal handling facility must blend in with the natural environment. • Keep the site visual clean. • Landscape the facility to increase its aesthetic value. • Plant indigenous vegetation to improve the aesthetic value of the facility. 		

Aspect	Objective	Mitigation Measure	Monitoring Indicator	Responsibility
Alien Invasive	Maintain natural ecosystem	<ul style="list-style-type: none"> No planting of alien plant is permitted. Put measure in place to control any alien infestation in the area. Implement an alien clearing policy and awareness campaign. 		

SECTION E: SOCIO ECONOMIC

Table 7. Social Economic Mitigation Measures

Environmental / Social Aspects	Objectives	Mitigation Measures	Monitoring Indicator	Responsibility
Employment	Promote benefits to the local resident	<ul style="list-style-type: none"> Adopt a local first policy to ensure that all general work is reserved for local people unless in circumstances where specialised skills are required. Employ local contractors Fair compensation and labour practise as per Namibian Labour Laws must be followed. The recruitment process must be formal and organised. 	Employee structure and proportion of local employment	Management or Site Manager

Environmental / Social Aspects	Objectives	Mitigation Measures	Monitoring Indicator	Responsibility
		<ul style="list-style-type: none"> • Preference should be given to recruit those who reside in Windhoek and surrounding towns. • Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed upon process. • Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those from the local community. • Clearly explain to all job seekers the terms and conditions of their respective employment contract (e.g. period of employment etc.) – make use of interpreters when necessary. • Secure accreditation for in-house skills transfer which recognizes and certifies any training courses. 		

Environmental / Social Aspects	Objectives	Mitigation Measures	Monitoring Indicator	Responsibility
HIV/AIDS	To prevent the spread of HIV/AIDS	<ul style="list-style-type: none"> • Provide HIV / AIDS awareness at induction. • Avail condoms at site. 		
Alcohol and Drug use	Prevent alcohol and drug use	<ul style="list-style-type: none"> • Ban the use of alcohol and drugs at workplace • Teach employees about dangers of alcohol and substance abuse. • All employees must be screen with the breathalyser on daily basis to avoid intoxicated personnel on site. 	Drunk / Misbehaving employees Breathalyser report Monitor presence of alcohol at the construction site	Management or Site Manager
Working hours	Adhere to the Labour Act No. 11 of 2007	<ul style="list-style-type: none"> • Operate within the prescribed working days and hours as per the Namibian Labour laws and regulations 	Labour unrest / Demonstration	Management or Site Manager
Traffic	Adhere to Traffic Rules and ease traffic flow	<ul style="list-style-type: none"> • A logbook should be kept at the gate of the facility indicating the time of entrance or exit, the type of vehicle, and its destination. By doing so, traffics can be monitored. 	Gate sheet/Correspondence to Traffic Department	Management or Site Manager

9. DECOMMISSIONING PHASE

The proposed development will be instrumental in ensuring that the environment is free of scrap metals particularly ferrous and non-ferrous metals. This will enhance environmental protection in Windhoek and contribute significantly to the reduction of scrap metals at the landfill. Scrap metals recycling is imperative in fostering sustainable resources management as well as creating economic opportunity to a number of people. The decommissioning of the intended project is not anticipated to take place in the nearest future due to a high number of scrap metals found in the City as well as neighbouring towns and settlements. If the proposed development has to be decommissioned, all the necessary applications mandatory from the relevant authorities will be applied for. The decommissioning plan must be developed by a competent person with the necessary experience on the project and all relevant authority should be consulted. Therefore, the project owners must implement the following mitigation measures;

- The proponent must submit a decommissioning plan to the office of the Environmental Commissioner for approval;
- Install signs to inform the public about the decommissioning of the project;
- Access to the areas must be controlled;
- A qualified project engineer must be hired to oversee the project decommissioning
- Hire environmental specialist to monitor possible contamination during decommissioning;
- Ensure that entire area is rehabilitated;
- Ensure that all topsoil is levelled;
- Provide workers with all necessary PPE;
- Generated waste must be disposed of at approved sites;
- When contamination is detected, the soil must be removed and treated before disposing it off to an approved site;
- The site must be completely rehabilitated and blend in with its natural state.

10. CONCLUSION AND RECOMMENDATIONS

In today's world, scrap metals are considered to be environmental lifeline. The proposed development will contribute immensely to the cleanness of the city in particular the informal settlements. In addition, there will be some economic incentives associated with the project because the proposed project will consider buying redundant scrap metals from the informal markets. This will enhance the livelihoods of those individual involve in collecting scrap metals so that they will be able to take care of their families and at the same time maintain a hygienic standard within the city. Although the proposed development will contribute enormously to reduction to the ferrous and nonferrous waste fraction it requires utmost care and monitoring. The scrap metals if not properly handled have the potential of contaminating the environment. Therefore, the proponent should ensure that environmental protection receive the highest attention during the operation of the scrap metals and should not compromise with the health of the employees. The Sarel Scrap Metals Dealers cc should be issued with the Environmental Clearance Certificate in order to necessitate its operation, however, stringent conditions on safety as well as continuous monitoring and adherence to the EMP should be imposed.