



**OPERATIONAL ENVIRONMENTAL MANAGEMENT PROGRAMME
(OPERATIONAL EMPr)**

For

**THE POLOKWANE WASTE TYRE PRE-PROCESSING
DEPOT LOCATED WITHIN POLOKWANE LOCAL
MUNICIPALITY IN LIMPOPO PROVINCE**

LEDET REF: 12/4/10/8/S24G-A/2/C1

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ACRONYMS & ABBREVIATIONS

BA	Basic Assessment
BAR	Basic Assessment Report
CRR	Comments and Responses Report
DEA	National Department of Environmental Affairs
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
ELO	Environmental Liaison Officer
EMPr	Environmental Management Programme
I&AP	Interested and/or Affected Party
LEDET	Limpopo Economic Development, Environment and Tourism
LIHRA	Limpopo Heritage Resources Agency
m	Metres
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEM: WA	National Environmental Management: Waste Act (Act No. 59 of 2008)
N&S	National Norms and Standards, 2013
NWMS	National Waste Management Strategy
OHS	Occupational Health and Safety
OTR	Off-the-road
PPE	Personal Protective Equipment
REDISA	Recycling and Economic Development Initiative South Africa NPC
SAHRA	South African Heritage Resources Agency
SMME	Small, medium and micro enterprise
V	Volt
WMCO	Waste Management Control Officer
WML	Waste Management License
WTRs	Waste Tyre Regulations, 2009

DEFINITIONS AND TERMINOLOGY

Bare soil: Un-vegetated soil surface, unaltered by humans

Compacted soil surface: A soil surface that has been hardened

Cumulative impacts: Impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities (e.g. discharges of nutrients and heated water to a river that combine to cause algal bloom and subsequent loss of dissolved oxygen that is greater than the additive impacts of each pollutant). Cumulative impacts can occur from the collective impacts of individual minor actions over a period and can include both direct and indirect impacts.

Container: means a disposable or re-usable vessel in which waste is placed for the purposes of storing, accumulating, handling, transporting, treating or disposing of that waste, and includes bins, bin-liners and skips

Direct impacts: Impacts that are caused directly by the activity and generally occur at the same time and at the place of the activity (e.g. noise generated by blasting operations on the site of the activity). These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable.

Drainage line: A drainage line is a lower category or order of watercourse that does not have a clearly defined bed or bank. It carries water only during or immediately after periods of heavy rainfall i.e. non-perennial and riparian vegetation may or may not be present

'Do nothing' alternative: The 'do nothing' alternative is the option of not undertaking the proposed activity or any of its alternatives. The 'do nothing' alternative also provides the baseline against which the impacts of other alternatives should be compared.

Ecosystem: A dynamic system of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

Environment: the surroundings within which humans exist and that are made up of:

- i. The land, water and atmosphere of the earth;
- ii. Micro-organisms, plant and animal life;
- iii. Any part or combination of (i) and (ii) and the interrelationships among and between them;
and
- iv. The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental impact: An action or series of actions that have an effect on the environment.

Environmental impact assessment: Environmental Impact Assessment (EIA), as defined in the NEMA EIA Regulations and in relation to an application to which scoping must be applied, means the process of collecting, organising, analysing, interpreting and communicating information that is relevant to the consideration of that application.

Environmental management: Ensuring that environmental concerns are included in all stages of development, so that development is sustainable and does not exceed the carrying capacity of the environment.

Environmental management programme: A plan that organises and co-ordinates mitigation, rehabilitation and monitoring measures in order to guide the implementation of a proposal and its ongoing maintenance after implementation.

General waste: Waste which does not pose an immediate hazard or threat to health or to the environment' and includes the following waste flows: domestic waste, construction and demolition waste, business waste, inert waste.

Habitat: The place in which a species or ecological community occurs naturally.

Handling: means the functions associated with the movement of waste, including storage, treatment and ultimate disposal, by use of manual system or automated systems

Hazard: Means the intrinsic potential property or the ability of any agent, equipment, material or process to cause harm

Hazardous waste: Waste that has the potential to cause a negative threat/impact to humans and/or the environment. It includes, but is not limited to, batteries, neon lights, fluorescent lights, printer cartridges, oil, paint, paint containers, oil filters, IT equipment etc.

Indirect impacts: Indirect or induced changes that may occur as a result of the activity (e.g. the reduction of water in a stream that supply water to a reservoir that supply water to the activity). These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.

Interested and affected party: Individuals or groups concerned with or affected by an activity and its consequences. These include the authorities, local communities, investors, work force, consumers, environmental interest groups, and the public.

Maintenance: means actions performed to keep a structure or system functioning or in service on the same location, capacity and footprint.

Pollution: A change in the environment caused by substances (radio-active or other waves, noise, odours, dust or heat emitted from any activity, including the storage or treatment or waste or substances.

Recovery: Means the controlled extraction of a material or the retrieval of energy from waste to produce a product

Recycle: a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material.

Rehabilitation: is defined as the return of a disturbed area to a state which approximates the state, as far as possible, which it was before disruption. Rehabilitation should aim to accelerate the natural succession processes so that the plant community develops in the desired way.

Re-use: to utilise articles from the waste stream again for a similar or different purpose without changing the form or properties of the articles

Reinstatement-is defined as the initial soil works that replaces soil levels back to the original state as far as possible. It may include an initial light temporary grassing.

Significant impact: An impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Temporary storage: means a once off storage of waste for a period not exceeding 90 days.

Topsoil: means that layer of soil covering the earth and which provides a suitable environment for the germination of seed allows the penetration of water, is a source of micro-organisms, plant nutrients and in some cases seed, and of a depth of up to 0,3m. Topsoil (top 300mm as a minimum) must be temporarily stockpiled separately from subsoil or rocky material (the topsoil contains both the seedbed and nutrient supply necessary for plant growth - if mixed with subsoil layers the usefulness of the topsoil for rehabilitation will be lost) Topsoil shall be stripped from all areas to be utilized during construction period and where permanent structures and access is required.

Waste: As per National Environmental Management: Waste Act means-

- a) any substance, material or object, that is unwanted, rejected, abandoned, discarded or
- b) disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or
- c) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste.

Waste tyre: means a new, used, retreaded or un-roadworthy tyre, not suitable to be retreaded, repaired, or sold as a part worn tyre and not fit for its original intended use.

Waste tyre management: means the collection and transportation, storage and pre-processing for delivery, the funding and operational activity for reducing waste tyres from the environment.

1. INTRODUCTION AND BACKGROUND

Phasha Property Investments CC, a small, medium and micro enterprise (SMME) supported by the Recycling and Economic Development Initiative South Africa NPC (REDISA), is currently operating a Waste Tyre Pre-processing Depot on Farm Plot 10 in Geluk outside Polokwane (off R71 towards Tzaneen); S: 23° 54' 15.09" E: 29° 32' 2.42", Limpopo Province (refer to Figure 1 for the locality map).

The study area falls within the jurisdiction of the Polokwane Municipality, Capricorn District Municipality. The activities being undertaken on site involve baling of tyres in a waste management facility that has a total operational area of $\pm 10500\text{m}^2$ (of which $\pm 200\text{m}^2$ is the baling area/ warehouse and $\pm 10300\text{m}^2$ is the storage area). The types of waste tyres being handled on site include the following:

Passenger vehicle tyres

- Truck tyres
- Motorbike tyres and
- 4x4 vehicle tyres
- Light commercial vehicle tyres
- Off-The-Road tyres (OTR) with <35inch/89cm diameter.

The waste management activities on site commenced in and around December 2014. The operation is mechanized and involves the following process:

The National DEA undertook a Blitz in December 2015, and provided a pre-compliance notice which instructed Phasha Property Investments CC and REDISA to engage with the Limpopo Department of Economic Development, Environment and Tourism (LEDET) to determine the need for a Waste Management License (WML). The LEDET confirmed that Phasha Property Investments CC commenced with certain activities which at the time (i.e. December 2014) was (and still is) listed in terms of section 19, read with section 20, of the National Environmental Management: Waste Act, 2008 (Act No.36 of 2008) (NEM:WA) as activities that require a WML before they may lawfully be undertaken.

The application for rectification was submitted to the LEDET in July 2016. The LEDET provided a letter of acknowledgement dated 13 July 2016, with a reference number 12/4/10/8/S24G-A/2/C1. In September 2016, the LEDET issued Phasha Property Investments CC with an administrative fine of R125 000 which was thereafter reduced to R50 000 after consultation with the department, in order for the department to consider the application further. Following payment of the fine, the department instructed the applicant to proceed with the submission of the Basic Assessment Report (BAR) as per Regulation 19 of the Environmental Impact Assessment Regulations, 2014 – this environmental management programme (EMPr) forms part of the BAR that will be submitted to the department for decision making.

1.1. Activities being applied for

This rectification application concerns the following listed activities in terms of the NEM: WA:

Table 1: Identified Listed Activities

Listed activity as described in GN R 921	Description of project activity that triggers listed activity
Category A3 (2): The sorting, shredding, grinding or bailing of general waste at a facility that has an operational area in excess of 1000m ² .	The activities on site include the sorting of tyres and then bailing in a waste management facility that has a total operational area of approximately ±10500m ² .
Category A3 (12): The construction of facility for a waste management activity listed in Category A of this Schedule (not is isolation to associated waste management activity).	A waste tyre pre-processing facility and its associated infrastructure has been constructed on site and is operational.

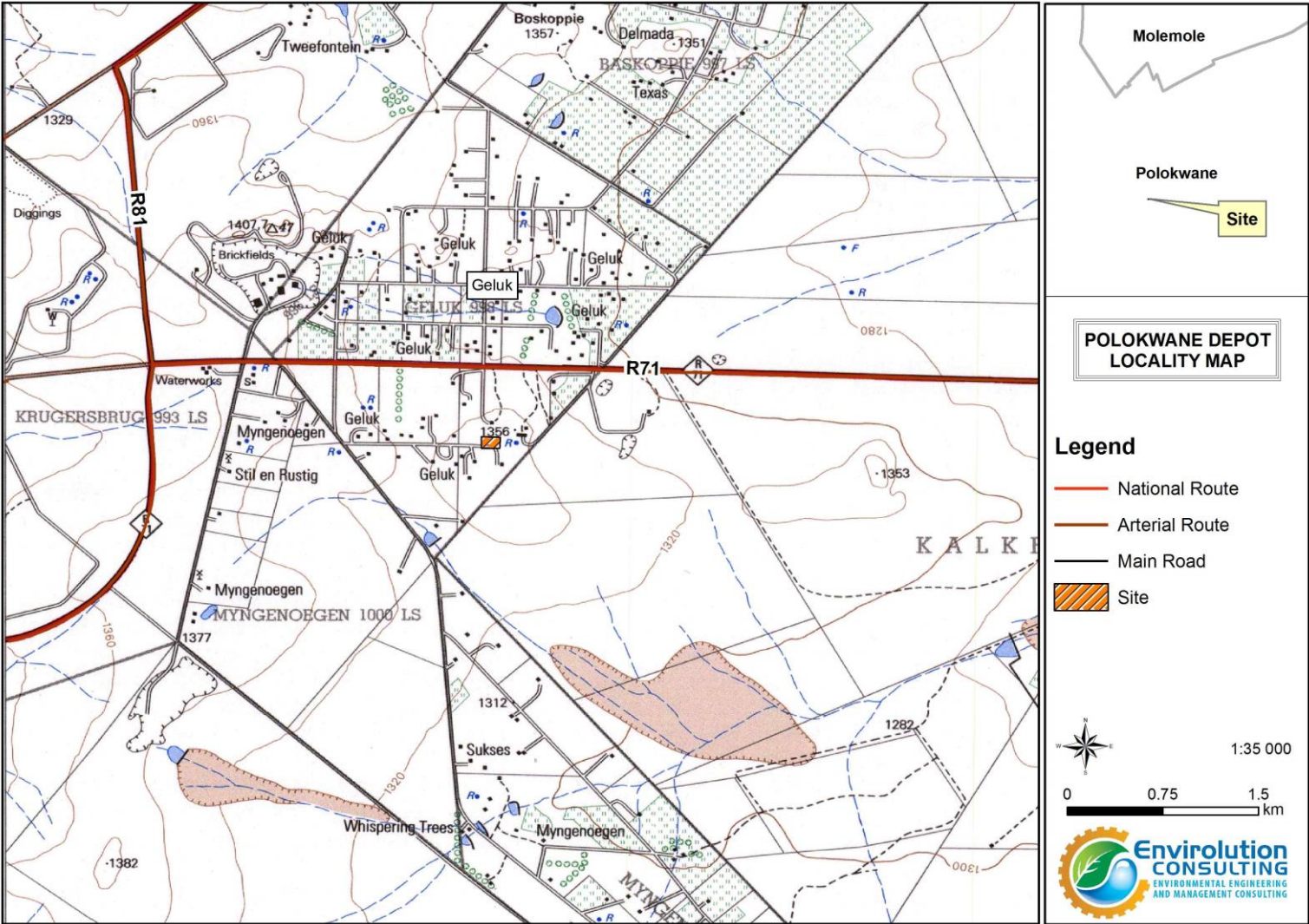


Figure 1: Locality Map showing the project study area.

1.2. Environmental Process

In terms of the National Environmental Management Waste Act (Act No 59 of 2008) (NEM: WA), this operation requires a Waste Management License (WML). As the activities, relevant to this operation are listed under Category A of GN921 (viz. Activity No 2 and 6), a Basic Assessment (BA) process, as stipulated in the EIA Regulations, 2014 published in terms of Section 24(5) of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), is required to be undertaken. In addition, Pasha Property Investments CC is required to comply with the National Norms and Standards for Storage of Waste, 2013 for all Category C activities of the NEM: WA.

In order to obtain a WML, comprehensive and independent environmental studies must be undertaken in accordance with these regulations. As such, Pasha Property Investments CC has appointed Envirolution Consulting (Pty) Ltd, as the independent environmental consultants, to undertake the required BA process.

It is understood that any development can pose various risks to the environment as well as the residents or businesses in the surrounding area. These possible risks should be taken into account during the planning phase of the development. The purpose of this document is to provide management responses that will ensure that the impacts of the development are minimised. This Operational EMPr (OEMPr) is, therefore, a stand-alone document, which must be used on site during operational phase.

In terms of the findings of the Basic Assessment Report (BAR), a limited number of environmental impacts were identified for the operational phase. The identified negative impacts are all of a low to medium impact, of short term duration and localised. These can be minimised through the implementation of practical and appropriate mitigation measures, as detailed in this OEMPr, and the application of and compliance with the National Norms and Standards for Storage of Waste, 2013 and the Waste Tyre Regulations, 2009.

This document should be flexible so as to allow Pasha Property Investments CC to conform to the management commitments without being prescriptive. The management commitments prove that the anticipated risks on the environment will be minimised if they are adhered to consistently. The onus set out in the OEMPr rests with Pasha Property Investments CC. Any parties responsible for transgression of the underlying management measures outlined in this document will be held responsible of non-compliances and will be dealt with accordingly.

1.3. Aims and objectives the OEMPr

The purpose of this OEMPr is to provide an easily interpreted reference document that ensures that the environmental commitments, safeguards and mitigation measures are implemented. It aims to minimise impacts associated with the operational phases of the development on the environment. This includes ensuring that the mitigation measures described in the BAR (where required) are implemented, to ensure continued monitoring of the operational phases and to ensure the involvement of interested and affected parties (I&APs) in a meaningful way.

The objectives for the OEMPr are:

- To develop, implement and maintain effective management systems for the environmental aspects of the development and associated works.
- To document details of environmental protection measures and controls so that they are able to provide long term protection for the natural environment;
- To ensure compliance with relevant legislation (National, Provincial and Local), regulatory requirements and environmental documents;
- To maximise the value and outcomes of environmental monitoring activities so that identified impacts are controlled and minimised;
- To ensure that all environmental management considerations are implemented during the operational and maintenance phases of the project.

The OEMPr has been developed based on the findings of the on-site assessment undertaken by Envirolution. All the environmental specifications and the procedures discussed in this document were also developed in accordance with the relevant legislation applicable to the development.

2. PREPARATION OF THE OEMPr

This draft OEMPr was compiled by:

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2.1. Expertise of Environmental Practitioner that prepared the OEMPr

Ms Jubilee Bubala the principle author of this OEMPr holds a Master's of Science degree from the Witwatersrand University. She has 7 years of experience consulting in the environmental field. Her key focus is on strategic environmental assessment and advice; management and co-ordination of environmental projects, which includes integration of environmental studies and environmental processes into larger engineering-based projects and ensuring compliance to legislation and guidelines; environmental auditing and compliance reporting; the identification of environmental management solution and mitigation/risk minimising measures; environmental auditing, monitoring and reporting compliance; and developing and implementing ISO 14001:2004. Jubilee has been a project scientist for various EIA's in South Africa and Southern Africa. Jubilee is currently a Project Manager at Envirovolution (refer to curriculum vitae attached within **Appendix G** of the BAR report.

3. APPLICABLE LEGISLATION

Several laws and regulations apply to the protection of the environment and contain environmental principles and standards that need to be applied and permits and licences that need to be obtained. This OEMPr will be subject to regulatory control under a range of National, Provincial and Local regulations. Such legislation largely embraces pollution prevention, resource use and conservation, and socio cultural (heritage) protection. This chapter reviews legislation pertaining to the proposed development.

According to Section 2 (1, 2 & 3) of the NEMA, all organs of state have to apply certain principles set out in NEMA when taking decisions that may significantly affect the environment. The key principles of this Act include that all “actions” that they approve must be economically, socially and environmentally sustainable. It further states that “people and their needs” must be at the forefront of “its concern” and their interests must be served equitably. The intent of this OEMPr is to ensure that the developer conducts all its activities related to the operation and maintenance of this parking in accordance with the provisions of the NEMA, and has taken into account the provisions of the Constitution and the principles of Integrated Environmental Management.

Key environmental legislations that are applicable to the project are outlined in the table below.

Table 1 below shows a list all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, 2014.

Table 1: Applicable Legislation, Policies and/or Guidelines

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
National Environmental Management Act (Act No. 107 of 1998) (NEMA)	<ul style="list-style-type: none"> ▪ NEMA requires, inter alia, that: <ul style="list-style-type: none"> » Developments must be socially, environmentally, and economically sustainable. » Disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimized and remedied. » A risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions.” ▪ The EIA Regulations, 2014, have been promulgated in terms of Chapter 5. Listed activities which may not commence without an environmental authorisation are identified within these Regulations. ▪ In terms of S24(1) of NEMA, the 	<ul style="list-style-type: none"> ▪ National DEA ▪ LEDET 	This Basic Assessment (BA) process (BAR and EMPr) is undertaken in accordance with the requirements of Government Notice R982 of December 2014, as required in terms of the NEM: Waste Act, 2008.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
	<p>potential impacts on the environment associated with these listed activities must be considered, investigated, assessed and reported on to the competent authority identified by NEMA with granting of the relevant environmental authorisation.</p>		
<p>NEMA, 1998</p>	<ul style="list-style-type: none"> ▪ A project proponent is required to consider a project holistically and to consider the cumulative effect of potential impacts. ▪ In terms of the Duty of Care provision in S28(1) the project proponent must ensure that reasonable measures are taken throughout the life cycle of this project to ensure that any pollution or degradation of the environment associated with a project is avoided, stopped or minimised. 	<ul style="list-style-type: none"> ▪ National DEA ▪ LEDET 	<ul style="list-style-type: none"> ▪ While no permitting or licensing requirements arise directly, the holistic consideration of the potential impacts of the operational phase of the waste management facility has found application in the BA Process. ▪ The implementation of mitigation measures is included as part of the Operational EMPr and will continue to apply throughout the life cycle of the project.
<p>National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM: WA)</p>	<ul style="list-style-type: none"> ▪ The Minister may by notice in the Gazette publish a list of waste management activities that have, or are likely to have, a detrimental effect on the 	<ul style="list-style-type: none"> ▪ DEA (hazardous waste) ▪ LEDET (general waste) 	<ul style="list-style-type: none"> ▪ The BA process is being undertaken in accordance with the Listed Waste Management activities in Category A of GN921 in terms of the NEM: WA, 2008.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
	<p>environment.</p> <ul style="list-style-type: none"> ▪ In terms of the regulations published in terms of this Act (GN921 of November 2013), a BA or EIA is required to be undertaken for identified listed activities. ▪ Any person who stores waste must at least take steps, unless otherwise provided by this Act, to ensure that <ol style="list-style-type: none"> a) The containers in which any waste is stored, are intact and not corroded or in any other way rendered unfit for the safe storage of waste; b) Adequate measures are taken to prevent accidental spillage or leaking; c) The waste cannot be blown away; d) Nuisances such as odor, visual impacts and breeding of vectors do not arise; and e) Pollution of the environment and harm to health are prevented. 		<ul style="list-style-type: none"> ▪ Waste handling, storage and disposal during operation is required to be undertaken in accordance with the requirements of this Act, as detailed in the Operational EMPr, as well as in accordance with the relevant sections of the National Norms and Standards for the Storage of Waste, 2013.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
National Norms and standards for the Storage of Waste (2013)	The Norms and Standards specify requirements for storage of waste (specifically section 16).	<ul style="list-style-type: none"> ▪ DEA ▪ LEDET 	The Operational EMPr has been drafted taking into consideration the requirements of the National Norms and Standards, 2013.
National Environmental Management: Air Quality Act (Act No. 39 of 2004) (NEM: AQ)	<ul style="list-style-type: none"> ▪ S18, S19 and S20 of the Act allow certain areas to be declared and managed as “priority areas”. ▪ Declaration of controlled emitters (Part 3 of Act) and controlled fuels (Part 4 of Act) with relevant emission standards. ▪ The Act provides that an air quality officer may require any person to submit an atmospheric impact report if there is reasonable suspicion that the person has failed to comply with the Act. ▪ Dust control regulations promulgated in November 2013 may require the implementation of a dust management plan. 	<ul style="list-style-type: none"> ▪ DEA ▪ LEDET ▪ Polokwane Local Municipality 	<ul style="list-style-type: none"> ▪ While no permitting or licensing requirements arise from this legislation for the depot, this Act will find application during the operational phase. ▪ The implementation of dust mitigation measures is included as part of the Operational EMPr and will continue to apply throughout the operation of the depot.
Environmental Conservation Act (Act No. 73 of 1989): Waste Tyre Regulations, 2009 (WTRs)	The purpose of the WTRs is to regulate the management of waste tyres by providing for the regulatory mechanisms. Part 6: Regulation 16 of the WTRs specifies requirements for	<ul style="list-style-type: none"> ▪ DEA ▪ LEDET ▪ Polokwane Local Municipality 	The Depot is required to comply with the storage requirements as per Regulation 16 of the WTRs.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
	the storage of waste tyres.		
National Heritage Resources Act (Act No. 25 of 1999)	S38 states that Heritage Impact Assessments (HIAs) are required for certain kinds of development including <ul style="list-style-type: none"> ▪ Any development or other activity <i>which will change</i> the character of a site exceeding 5000 m² in extent 	<ul style="list-style-type: none"> ▪ South African Heritage Resources Agency (SAHRA) ▪ Limpopo Heritage Resources Agency (LIHRA) 	The development is pre-existing, with no other upgrades planned, and therefore the character of the site is not being changed. This BAR will be uploaded onto the SAHRIS website and sent to the LIHRA for comments. Comments received will be taken into consideration and included in the Final BAR submitted to the LEDET.
Hazardous Substances Act (Act No. 15 of 1973)	<ul style="list-style-type: none"> ▪ This Act regulates the control of substances that may cause injury, or ill health, or death due to their toxic, corrosive, irritant, strongly sensitizing, or inflammable nature or the generation of pressure thereby in certain instances and for the control of certain electronic products. To provide for the rating of such substances or products in relation to the degree of danger; to provide for the prohibition and control of the 	<ul style="list-style-type: none"> ▪ DEA (Hazardous Waste) ▪ LEDET 	This act will find application in the proper storage of hydrocarbons on site e.g. diesel, if any.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
	importation, manufacture, sale, use, operation, modification, disposal or dumping of such substances and products. ■ It is necessary to identify and list all the Group I, II, III, and IV hazardous substances that may be on the site and in what operational context they are used, stored or handled.		
Promotion of Access to Information Act, 2000 (Act No 2 of 2000)	Legislation that allows the public access to information about activities that influence their well-being and to make contributions to decision making.	<ul style="list-style-type: none"> ■ DEA ■ LEDET 	No permitting is required the act finds applicability during the public participation process phase of the BA process.
Occupational Health and Safety Act (Act No. 85 of 1993) (OHS)	The OHS Act provides for the health and safety of persons at work and for the health and safety of persons indirectly associated with the daily operation of the depot; the protection of persons other than persons at work, against hazards to health and safety arising out of or in connection with the activities of persons at work.	<ul style="list-style-type: none"> ■ Department of Labour (DoL) 	While no permitting or licensing requirements arise from this legislation, this Act will find application during the construction phase of the project. H&S precautions measures must be put in place for the construction crew and the general public (e.g. protection of workers on site through provision of Personal Protective Equipment (PPE) and appropriate training.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
Conservation of Agricultural Resources Act (Act No 43 of 1983) (CARA)	Regulation 15 of GNR 1048 provides for the declaration of weeds and invader plants, and these are set out in Table 3 of GNR 1048.	<ul style="list-style-type: none"> ▪ Department of Agriculture, Forestry and Fisheries (DAFF) 	Alien plant species proliferate in disturbed area. The Operational EMPr has provided mitigation measures for management of invasive plant species that may establish on site during the operational phase.
National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEM: BA)	The NEM: BA provides management and conservation of South Africa's biodiversity, the protection of species and ecosystems that warrants national protection and the sustainable use of indigenous biological resources. GNR 985; the alien and invasive species (AIS) regulations provides for declaration of weeds and invader plants.	<ul style="list-style-type: none"> ▪ DEA 	This act will find application throughout the life cycle of the project. In this regard soil erosion prevention and soil conservation strategies must be developed and implemented. In addition, a weed control and management measures provided in this Operational EMPr must be implemented.
National Waste Management Strategy of the NEM: WA, 2008 (NWMS)	<p>The NWMS presents Government's strategy for integrated waste management in South Africa. Waste avoidance is the primary focus of the NWMS, and as such must be the priority of any municipal Integrated Waste Management Plan (IWMP).</p> <p>Waste avoidance is defined as the action that avoids the entry of material into the waste stream that is when the generator of the potential waste</p>	<ul style="list-style-type: none"> ▪ DEA 	The depot will support and promote waste tyre recycling, providing the collection and depot infrastructure required to collect waste tyres across the province and deliver them to approved recyclers - in turn reducing waste tyres from the environment.

Title of legislation, policy or guideline (Promulgation Date)	Applicable Requirements	Administering Authority	Description of compliance
	material exercises the decision to do something else with that material rather than to put it out for waste collection. Waste reduction can also be achieved through the recovery and/or recycling of waste after collection.		
Capricorn District Development Plan (IDP) 2016/2017-2020/2021:	The Capricorn District IDP identifies (i) illegal dumping and littering and (ii) lack of infrastructure and resources for waste management throughout the district as two challenges faced.	<ul style="list-style-type: none"> ▪ Capricorn District Municipality 	The Polokwane Depot can be seen as a solution to the two challenges as it provides infrastructure and resources for waste tyre management and aids in the prevention of illegal dumping of waste tyres. This will assist the municipality to meet its objectives for waste management.

4. DESCRIPTION OF POTENTIAL IMPACTS

Potential impacts that may arise on site due to the operations of the waste management facility include both negative and positive impacts as detailed below.

4.1 Potential Negative Impacts

a) Impact on Biodiversity (Loss of indigenous vegetation outside of the waste management facility/ surrounding vegetation)

According to the vegetation map shown in Figure 2, the site falls within the Polokwane Plateau Bushveld. This vegetation type can be described as, false grassland to open savannah characterized by open clumps of woody vegetation with *Acacia tortilis* subsp. *Heteracantha* and *Acacia rehmanniana* as the dominant tree element and *Themeda triandra* dominating the grass layer (Acocks 1953; Low and Rebelo 1996; Mucina & Rutherford 2006). This site cannot be a representative of the Polokwane Plateau Bushveld as the vegetation has been cleared from previous agriculture activities and also the existing waste management facility during site preparations. Nonetheless, there is some vegetation outside of the waste management facility, towards the north and north-west boundary which could be impacted upon if site activities are not managed within the demarcated site boundaries. Activities such as illegal dumping of waste in the immediate surroundings, accidental fires etc. could impact on the identified vegetation. The anticipated impact is assessed to be very low without mitigation and with mitigation it is assessed to be near negligible.

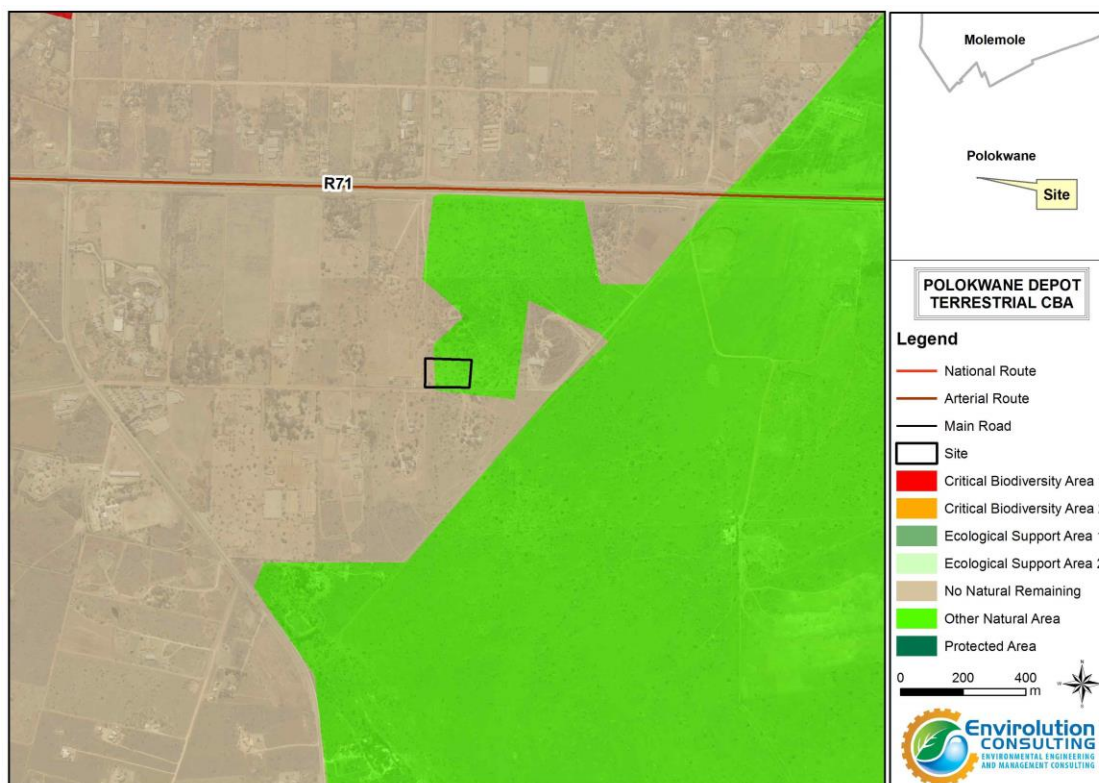


Figure 2: Overview of the site and its immediate surroundings in terms of site vegetation sensitivity.

b) Potential Noise Impacts

The operations at the depot generates minimal noise during their continued operations; the only noise anticipated is normal traffic noise which will occur during operation hours (i.e. between 7:30am and 4:30pm) due to movement of delivery vehicles collecting and transporting waste tyres to and from site. The traffic noise from movement of haulage trucks is below 85 decibels and is negligible as the proposed development will be located in area far from any potentially noise sensitive receptors. Therefore, there is no risk of a noise disturbance that will be created by the development and the impact will not be assessed further.

c) Potential Fire Impacts

Whole tyres are flammable and when they are stored together in large volumes, they can create a fire hazard. This can significantly cause damage to property, cause air pollution that can impact on human health (from noxious smoke), create run-off of toxic oil, dangerous heavy metals and soot causing soil pollution/ contamination.

d) Potential Soil and Groundwater Contamination Impacts

Most of the site is bare ground and soil and groundwater pollution may occur due to:

- Hydrocarbon leaks from site operation equipment e.g. (fork lift/ Bobcat; bailer machine and from heavy duty vehicles that will assess site;
- Inappropriate handling and storage of hydrocarbons on site
- The waste storage facility may be an additional potential source of subsurface contamination.
- Accidental fires from the burning of tyres resulting in soil pollution

e) Potential Storm water Impacts

An assessment of the site carried out by an engineer from Ground truth, on 23 June 2016 reported that the site was generally well drained with surface runoff discharging into adjacent veld areas in a diffuse manner. Based on the findings of the site visit and subsequent desktop analyses of the site, as well as the absence of the local legislation, it is the opinion of the specialist that no additional storm water management measures are necessary on site.

However, it is worth noting that tyres are temporary stored on site and during the rainy season, uncompressed tyres tend to collect rain water in their cavities this may result in pooling of storm water in storage and operation areas. Contamination of storm water may occur, management of storm water on site during the rainy conditions will therefore, be required. The section below provides a guideline for the management of storm water on site.

f) Potential Visual Impacts inappropriate waste handling and waste tyre management

The storage and handling of the waste tyres and domestic waste generated on site may potentially lead to visual nuisance/unsightliness, contamination e.g. soil pollution of the site due to inappropriate waste management practices This may lead to the depot becoming unsightly should the waste not be stored, managed and disposed of properly. Impacts are expected to be of low significance which, in most instances could be reduced to a lower impact through appropriate mitigation.

g) Potential Air Quality Impacts

The site is levelled and compacted (bare ground) and movement of heavy duty vehicles and machinery on site generates dust. Limited gaseous or particulate emissions (e.g. exhaust emissions) are anticipated from operation equipment on-site and delivery vehicles that will access the site. The overall impact on the environment as a result of the operation is likely to be of low significance as the bailing process will not release emissions into the atmosphere and impacts associated with dust and vehicle exhaust emissions will be localised.

h) Potential Health and Safety Impacts

Health and safety incidents may occur in connection with the use of operation machinery on site due to unsafe working conditions and unauthorised entry to site by outsiders; the protection of persons other than persons at work, against hazards to health and safety arising out of or in connection with the activities of persons at work or illegal access to site by unauthorised persons is required.

4.2 Positive Impacts

a) Recovery of waste tyres from the environment

The waste management facility currently ensures on going waste management from recovery and diverting tyres from landfill through recycling and the promotion of treatment and processing technologies in Limpopo Province. The redirect of waste tyres also reduces illegal activities such as resale of second hand tyres (which poses danger), burning of waste tyres for heating purposes and recovery of steel that result in health hazards, atmospheric pollution and soil pollution within the broader Limpopo Province. This promotes a clean and healthy natural environment as well as much needed airspace in provincial landfills that are fast filling up.

b) Socio-economic impacts

The waste management facility has created approximately 9 permanent employment opportunities. Job opportunities are available to skilled personnel (e.g. management and supervisory), semi-skilled personnel (e.g. equipment operators), and low-skilled staff (e.g. security personnel, tyre handlers and cleaners). Positive direct social impacts are expected to be of low significance while the indirect impacts are expected to have a medium significance with or without enhancement.

5. PHASES OF THE PROJECT

The implementation of the mitigation measures provided in this OEMPr is to take a pro-active route by addressing potential problems prior to occurrence. This should limit corrective measures needed during the operational phase. Additional mitigation will be included throughout the operational phase, as required and if necessary.

5.1 Operational Phase

The overall goal for this phase is to ensure that the operation of the waste tyre pre-processing depot does not have unforeseen impacts on the environment and to ensure that all potential impacts are monitored and the necessary corrective action taken in all cases. In order to address this goal, it is necessary to operate the waste tyre pre-processing depot in a way that:

- Ensures that operation activities are properly managed in respect of environmental aspects and impacts; and
Enables the waste tyre pre-processing depot operation activities to be undertaken without significant disruption to other land uses in the area, in particular with regard to noise, traffic and road use, and effects on surrounding landowners.

6. ROLES AND RESPONSIBILITIES

The implementation of this OEMPr requires the involvement of several stakeholders, each fulfilling a different but vital role to ensure sound environmental management during the operational phase of the waste tyre pre-processing facility – these stakeholders and their roles and responsibilities are discussed below.

6.1 Applicant: Phasha Properties CC

Applicant shall:

- Organize, oversee and administer the functioning of the Waste Tyre Pre-Processing Facility and ensure that the facility is operated in accordance with a WML (once issued), the Norms and Standards for the Storage of Waste, 2013, Waste Tyre Regulations, 2009 and all relevant laws, policies and regulations relating to the waste management activities being undertaken at the depot.
- Make appropriate funding available for the operation and maintenance of the facility.
- Make appropriate appointments of suitably qualified personnel and or contractors to operate the facility in accordance with the WML requirements and conditions (once issued).
- Handle and deal with all complaints or problems that the appointed SHEQ personnel cannot handle and maintain a record of all such complaints.
- Liaise with REDISA to ensure that internal and external audits are undertaken on site as and when required or as prescribed in the WML (once issued).
- Ensure that sufficient resources (time, financial, human, equipment, etc.) are available to the other role players (e.g. SHEQ personnel, fire-fighter, first-aider) to efficiently perform their tasks.
- Restore the environment in the event of negligence leading to damage to the environment.
- Ensure that the OEMPr is included in contractual documents (e.g. Service level agreements) so that the transporting contractor/s and security companies appointed onsite are bound to the conditions/ requirements of the OEMPr.
- Appoint an independent external auditor to undertake environmental audits as specified by the WML (once issued) and ensure that the external auditor submits the report to the relevant authority.
- The liability of any non-compliance with legal and other requirements shall ultimately be upon the Depot Manager.

6.2 Waste management control officer (WMCO)

Section 58 (1) of the National Environmental Management Waste Act (Act 59 of 2008), speaks to the designation of waste management control officer at a facility which holds a waste management licence. The independent WMCO would be required to be on site on a daily basis for the whole life of the facility to monitor the operations of the facility. However, given the relatively small scale of the project, nature of the project and the associated low risks, it has been proposed that the external independent WMCO required to be based on site full-time by legislation would not be required for this development. In this regard, the appointed SHEQ representative at the depot will monitor compliance with the WML and OEMPr, and internal audits will be undertaken by competent internal auditors from REDISA.

6.3 Independent external auditor

An independent external auditor must be appointed by the applicant to audit the waste tyre pre-processing facility in accordance with the WML conditions (once issued). If the frequency is not stipulated in the WML, the audits shall be undertaken biennially in accordance to with the Norms and Standards for the Storage of Waste, 2013. The auditor must compile an audit report documenting all findings of the audit which must be submitted to the relevant authority (GDARD). Accordingly, the Independent External Auditor will:

- Ensure that there is communication with the Depot Manager regarding the auditing of the site.
- Submit biennial audits reports to the developer and the relevant authority in accordance to the Norms and Standards for the Storage of Waste, 2013 or as specified in the WML (once issued).
The report must include the following:
 - Specifically, state whether the conditions of WML, the EMPr, Norms and Standards for the Storage of Waste, 2013 and Waste Tyre Regulations, 2009 are adhered to.
 - Include an interpretation of all available data regarding the operation of the facility and all its impacts on the environment.
 - Contain recommendations regarding non-compliance or potential non-compliance and must specify target dates for the implementation of the recommendations and whether corrective actions taken for the previous audit non-conformities was adequate.
 - Show monitoring results graphically and conduct trend analysis.

6.4 Transporters

- All transporters shall conform to the requirements of the OEMPr, and specific applicable WML conditions, which shall also form part of their contract documents and terms of agreement between Phasha and the transporter.
- Transporters are responsible for the transportation of waste tyres and shall ensure that they meet all national, provincial, and local requirements in addition to any other requirements set by Phasha.
- Transporters shall retain waste records in a legible manner (in hardcopy or electronic format). These records shall include but not limited:
 - Types and classification of waste tyre handled
 - Date of handling
 - Units and or tonnages

7. OPERATIONAL ENVIRONMENTAL MANAGEMENT PROGRAM

The following table forms the core of this OEMPr for the operational phases of the development. Compliance with this OEMPr must be followed up with annual internal audits for a period of two years during the operational phase.

Table 2: Operation Phase: Environmental Management Programme for the proposed project

Activity / issue	Action required	Responsible party	Frequency
Prevention of soil and groundwater contamination	If repairs of operating machinery or haulage vehicles must take place, an appropriate drip tray must be used to contain any fuel or oils.	Depot manager	Throughout operation
	Regular maintenance of operation machinery must be undertaken as required to ensure they are in good condition at all times.	Depot manager	Throughout operation
	Any leaks from vehicles or operation equipment (haulage trucks, fork lift/Bob cat/bailer) which impact on soils must be cleaned up as soon as possible and disposed of in a hazardous waste bin for final disposal at a suitably licensed waste disposal site.	Depot manager	Throughout operation
	Report on environmental compliance at the monthly site meetings and or during site toolbox talks.	Depot manager	As necessary
	Operation machinery (e.g. baling machine) must be stored on an appropriate impermeable surface.	Depot manager	Throughout operation
	All hydrocarbons must be stored in a sealed area on site.	Depot manager	Throughout operation
Monitoring of soil and groundwater contamination	Regular site inspection by the must be undertaken to ensure no soil/water contamination occurs on site through: <ul style="list-style-type: none"> • Visual daily inspections throughout the operation phase. • Immediate reporting by personnel of any potential operation machinery/vehicle leaks to the Depot Manager. • An incident report to be prepared for any soil/water contamination identified. 	Depot manager	Throughout operation
OEMPr	This OEMPr must be made binding to Phasha as well as individual contractors (transporters) and a copy of the OEMPr should be provided to the transporters servicing the Polokwane Depot.	Depot manager	Throughout operation
Ensure disciplined conduct of on-site operation personnel	The terms of this OEMPr and the WML (once issued) are to be provided to all registered transporters.	Depot manager	Throughout operation
	On-site personnel are to be made aware of the requirements of the OEMPr and WML (once issued).	Depot manager	Operation
	All site personnel, contractors and visitors that access site must use	Depot manager	Operation

	provided toilets/ablution facilities. No ablution will be permitted outside the designated facilities.		
	All litter must be deposited in a clearly marked, closed, animal-proof disposal bin in the; particular attention needs to be paid to food waste.	Depot manager	Operation
Training for Site Personnel	All transporters involved in servicing the Polokwane are to be required to undergo some form of environmental induction on their obligations towards environmental controls and methodologies in terms of this OEMPr.	Depot manager	Throughout operation
	<p>The Depot Manager shall ensure that all site personnel have a basic level of environmental awareness training. Topics covered should include:</p> <ul style="list-style-type: none"> • What is meant by “Environment” • Why the environment needs to be protected and conserved • How operation activities can impact on the environment • What can be done to mitigate against such impacts • Awareness of emergency and spills response provisions <p>Social responsibility during operating hours: It is the Depot Manager`s responsibility to provide the SHEQ rep with environmental training and to ensure that the Rep has sufficient understanding to pass this information onto the operation staff.</p> <ul style="list-style-type: none"> • Training should be provided to the staff members in the use of the appropriate fire-fighting equipment. Translators are to be used where necessary. • Use should be made of environmental awareness posters on site. • The need for a “clean site” policy also needs to be explained to the workers. • Staff operating equipment (such as bailer, folk lift, etc.) shall be adequately trained and sensitised to any potential hazards associated with their tasks. <p>The Depot Manager must monitor the performance of the operation personnel to ensure that the points relayed during their</p>	Depot manager & appointed SHEQ Rep	As required

	introduction have been properly understood and are being followed.		
	Environmental inductions may take the form of onsite talks. Induction report will be signed by the Depot Manager as well as the Employee undergoing Induction, and records kept for auditing purposes. The education / awareness programme should be aimed at all personnel from top to bottom and also all contractors that assess site and all new visitors on site must undergo induction.	Depot manager & appointed SHEQ Rep	Continuous
Permit Requirements	Phasha shall ensure that all pertinent permits, certificates and permissions have been obtained prior to any activities commencing on site and ensure that they are strictly enforced / adhered to.	Depot manager	As required
Record Keeping	The following records must be kept in the Health, Safety and Environmental file on site and must be retrieved easily: <ul style="list-style-type: none"> ▪ Environmental Impact Report ▪ OEMPr ▪ WML (once issued) ▪ Approved waste tyre storage plan and fire clearance certificate ▪ Health and Safety Procedures, Risk Assessments, ▪ Emergency Preparedness Plan ▪ Certificates for all employees who have undertaken training (e.g. SHEQ Rep, Fire-fighting, first-aid). ▪ Records of minutes of toolbox talks together with attendance registers. ▪ Records of public complaints (public register) ▪ Waste Documentation relating to inbound and outbound waste tyres and tonnage of bales produced (it is understood that the Depot is transitioning to an electronic system of capturing waste tyre information) ▪ Internal Audit Reports ▪ External Audit Reports 	Depot manager	Continuous
To Avoid or Minimise the Potential Risk of Fire Hazards	Ensure that no refuse waste is burnt on the premises or on surrounding premises.	Depot manager	Throughout operation
	A security attendant trained in fire prevention must be on site at all times	Depot manager	Throughout operation

	Ensure that there is basic fire-fighting equipment available on site as per requirement of the local Emergency Services	Depot manager	Once - off
	Ensure that appropriate communication channels are established to be implemented in the event of a fire.	Depot manager	Continuous
	Contact details of the emergency services should be prominently displayed on site.	Depot manager	Continuous
	Ensure that all fire extinguishers are serviced and/or replaced on or before their expiry dates.	Depot manager	Continuous
	Any fires incident that causes damage to property and substantial pollution to the environment shall be reported immediately to the relevant authorities as well as REDISA.	Depot manager	Throughout operation
	Provide fire-fighting training to operation staff who must formally accept the role as a fire-fighter by signing a letter of appointment.	Depot manager	Continuous
	Undertake fire drills at least once every four months or as required	Depot manager & appointed fire-fighters	Continuous
	Ensure that fires are not started as a consequence of operation personnel activities on site.	Depot manager	Throughout Operation
	The depot manager must ensure that all site personnel are aware of the fire risks and how to deal with any fires that occur. This shall include, but not be limited to regular fire prevention talks (at least once a month)	Depot manager	Continuous
	All interior firebreaks between stockpiles of waste tyres must be at least 5 metres wide to prevent the fire from spreading.	Depot manager	Throughout Operation
	The edges of the stockpiles must be 8 metres from the perimeter fence, and any buildings, and the area between the piles and fence and buildings must be clear of any debris and vegetation	Depot manager	Continuous
	In the event of a major incident, i.e. fire causing damage to property and environment, major spill or leak of contaminants, the relevant authorities should be notified as per the notification of emergencies/incidents, as per the requirements of NEMA. In addition, the Depot Manager must immediately notify REDISA.	Depot manager	Throughout Operation
	Telephone numbers of emergency services, including the local fire fighting service, shall be displayed conspicuously in the Depot	Depot manager	Continuous

	manager's office near a telephone		
To avoid the Potential Pollution of Storm water	Unprocessed waste tyres should be stored in a way that no water will collect in the cavities.	Depot manager	As necessary
	An adequate storm water management drainage system should be developed and implemented on site to avoid the standing of water and the contamination thereof	Depot manager	Once off
	Ensure appropriate housekeeping in the storage area	Depot manager	As necessary
Ensure disciplined conduct of on-site operation personnel	The terms of this OEMPr and the Waste Licence (once issued) are to be provided to all transporters.	Depot manager	Once off
	On-site personnel and contractors are to be made aware of the requirements of the OEMPr and Waste License	Depot manager	As and when required
	All site personnel, contractors and visitors that access site must use provided toilets/ablution facilities. No ablution will be permitted outside the designated facilities.	Depot manager	Throughout Operation
	All litter must be deposited in a clearly marked, closed, animal-proof disposal bin in the; particular attention needs to be paid to food waste.	Depot manager	Throughout Operation
Appropriate handling and Management of Waste	The facility must be kept neat and tidy during waste handling to prevent unsightliness and accidents	Depot manager	Throughout Operation
	General waste should not be mixed with Hazardous waste on site	Depot manager	Throughout operation
	Where possible general wastes on-site generated during operation must be reused or recycled. Bins and skips must be available on-site for collection, separation, and storage of waste streams (such as recyclables and non-recyclables etc.).	Depot manager	Throughout operation
	Transportation of waste must be in accordance with relevant legislative requirements, including the use of licensed contractors.	Transport Contractor	Duration of contract
	No tyre waste or general waste may be buried or burnt on site.	Depot manager	Throughout operation
	General and hazardous waste must be stored in separate waste receptacles.	Depot manager	Throughout operation
	Documentation (waste manifest) must be maintained detailing the quantity, type of tyre waste brought to site for bailing and that taken	Depot manager	Duration of contract

	offsite to recycling facilities. Waste tyre management records must be available for review at any time.		
	A Waste tyre register, which describes the quantities of each waste tyre categories processed on site on a daily/weekly/monthly basis, must be maintained on site.	Depot manager	Throughout operation
	A Waste tyre Register, which describes the quantities of each waste tyre categories processed on site on a daily/weekly/monthly basis must be maintained on site.	Depot manager	Throughout operation
	No single stockpile of waste tyre may exceed 3 metres in height, a length of 20 metres and a width of 10 metres	Depot manager	Throughout operation
	Waste tyres must be stored in accordance with Section 16 of the Waste Tyre Regulations, 2009.	Depot manager	Throughout operation
Appropriate handling and Management of Combustible materials and refuse	No person may store any combustible materials of whatever nature, or have them stored or permit them to be stored in such a manner and in such a position as to likely pose a fire hazard to the premises and/or any other person's property.	Depot manager	Throughout operation
	No person may allow grass, weeds, reeds, shrubs, trees or any like vegetation to become overgrown on premises to such an extent that it may pose a fire hazard or a probable fire hazard to any adjacent premises and/or any other person's property.	Depot manager	Throughout operation
	No person may use or allowed to use any sawdust or similar combustible material to soak up any flammable liquid.	Depot manager	Throughout operation
	Combustible waste and refuse must be properly stored or disposed of to prevent a fire hazards or other threatening danger as prescribed in the applicable legislation, dealing with the storage and disposal as determined by the controlling authority.	Depot manager	Throughout operation
	Notwithstanding anything to the contrary contained in any other law, only approved water-based solutions or detergents, floor sweeping compounds and grease absorbent must be used for cleaning purpose.	Depot manager	Throughout operation
	Any hazardous or dangerous goods utilized during the operation phase must be stored on an impermeable surface that is bunded, fenced, locked and covered.	Depot manager	Throughout operation
Appropriate	Spill kits must be available in the areas where chemicals are stored	Depot manager	Continuous

handling and Storage of chemicals and Hazardous Materials	and used during operation and the operation crew must be trained in the procedure to clean up a spill as indicated by a manufacturer or supplier of the spill kit in line the appropriate material safety data sheet for the particular chemical.		
	If fuel is stored - the fuel to be maintained within a bund and on a sealed surface. The bunded area must be provided with a tap off system through which spillages and leakages that will occur will be removed without any spillages outside the bunded area.	Depot manager	Throughout operation
	Where applicable, fuel storage areas must be inspected regularly to ensure bund stability, integrity and function	Depot manager	Throughout operation
	A safety material data sheet must be available on site for all chemicals used on site and the employees must be trained on the content of such Material Safety Data Sheet. Records of such training must be kept on site for verification purposes	Depot manager	As required
	Remediation of spillages must be conducted within 24hours of spillage;	Depot manager	As required
	Contaminated soil will be considered to be hazardous waste and disposed of accordingly	Depot manager	Continuous
Appropriate Management and Storage of Waste Tyres	The waste tyre storage area must not exceed 30000m ² .	Depot manager	Continuous
	A waste tyre storage area plan must be developed by the Depot Manager (or persons as prescribed by the municipal fire department).	Depot manager	Once off
	The waste tyre storage plan must be approved by the municipal fire department and must be available on site at all limes.	Depot manager	Once off
	The municipal fire department may exempt the waste tyre storage owner from the provisions in sub regulation (6). In this regard, the Depot Manager must have a formal letter from the fire department exempting the facility from the provisions in sub regulation 6.	Depot manager	Continuous
	The site on which waste tyres are stored must meet as a minimum the following requirements: clearly visible signs with operating hours, contact details and site regulations must be posted near the entrance to the facility;	Depot manager	Throughout operation
Appropriate Management and	A security attendant trained in fire prevention must be on site at all times;	Depot manager	Throughout Operations

Storage of Waste Tyres	the site manager must be on site at all times when the facility is open	Depot manager	Throughout Operations
	Waste tyres must be stored in accordance with Section 16 of the Waste Tyre Regulations, 2009.	Depot manager	Throughout Operations
Minimise Dust and Air Emissions	Appropriate dust suppression must be applied on site as required to minimise or control air bone dust.	Depot manager	As required
	Vehicles and operating Equipment must be maintained in a road-worthy condition at all times	Depot manager	As required
	Speed of vehicles on site must be restricted as defined by the Depot Manager	Depot manager	As required
	No burning of refuse or vegetation is permitted.	Depot manager	As required
	The developer must ensure that the site is maintained to be flat and hard-packed as a permanent solution to the dust problem and also to comply with Waste Tyre Regulations of 2009.	Depot manager	Once off
Public Complaints Register	A complaints register must be developed and maintained, in which any complaints from the surrounding properties will be logged.	Depot manager and security attendants	Throughout Operations
Incident Register	An incident reporting system must be used to record non-conformances to the OEMPr, WML and all other applicable permits pertaining to the facility	Depot manager and SHEQ Rep	Throughout Operations
Minimise Health and Safety Risk	Protection of workers on site through provision of adequate Personal Protective Equipment (PPE); Training and other health and safety amenities.	Depot manager	Throughout Operations
	Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).	Depot manager	Throughout Operations
	Strict access to site must be implemented by the presence of security to control authorized access into the facility.	Depot manager	Throughout Operations
	Entry points to the site must be clearly marked and traffic limited to those areas as far as possible.	Depot manager	Throughout Operations
	Suitable warning and information signage should be erected on site	Depot manager	Throughout Operations
	Adequate sanitary and ablutions facilities must be provided for operation workers	Depot manager	Throughout Operations
	All flammable substances must be stored in dry area which does not pose an ignition risk to the said substances.	Depot manager	Throughout Operations

	Ensure all operation vehicles and machinery is under the control of competent personnel.	Depot manager	Throughout Operations
	No fires must be allowed on site	Depot manager	Throughout Operations
	Emergency preparedness and response plan for operations must be developed and approved.	Depot manager	Throughout Operations
	Fire-fighting equipment, serviced annually, must be available on site.	Depot manager	Throughout Operations
	The site must be securely fenced to prevent scavengers from illegally accessing the site	Depot manager	Throughout Operations
Housekeeping	Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period.	Depot manager	Throughout Operations
	All waste/litter/rubbish generated on-site must be disposed of at an approved dumping site.	Depot manager	Throughout Operations
	Supply sufficient garbage bins throughout the site and service regularly.	Depot manager	Throughout Operations
	Ensure good housekeeping is implemented at all times.	Depot manager	Throughout Operations
	Keep the property neat and litter free at all times.	Depot manager	Throughout Operations
	The storage of tyres should not exceed 8 meters	Depot manager	Throughout Operations
Enhancement of Positive Social Impacts	Local employment policy should be adopted to maximize the opportunities made available to the local labour force.	Depot manager	Throughout Operations
	Where reasonable and practical the developer should appoint local contractors and implement a (local first) policy e.g. security company and transporters of waste tyres to and from site, site personnel	Depot manager	Throughout Operations

8. AWARENESS AND COMPETENCE

To achieve effective environmental management, it is important that transporters servicing the Polokwane Depot, site employees and other service providers (e.g. security company) are aware of the responsibilities in terms of the relevant environmental legislation and the contents of this OEMPr. The Depot Manager is responsible for informing its employees and contractors (transporters) of their environmental obligations in terms of the environmental specifications, and for ensuring that employees are adequately experienced and properly trained in order to execute the works in a manner that will minimise environmental impacts. Phasha's obligations in this regard include the following:

- Employees must have a basic understanding of the key environmental features of the depot and its surrounding environment.
- Ensure that a copy of the OEMPr is readily available on-site and that all site staff is aware of the location and has access to the document.
- Employees must be familiar with the requirements of the OEMPr and the environmental specifications as they apply to the operation of the facility.
- Ensure that, prior to commencing any new site works, all employees have attended an Environmental Awareness Training course. The course must provide the site staff with an appreciation of the project's environmental requirements, and how they are to be implemented.
- Awareness of any other environmental matters, which are deemed to be necessary by the depot manager.
- Ensure that appropriate communication tools are used to outline the environmental "do's" and "don'ts" (as per the environmental awareness training course) to employees.
- Records must be kept of those that have completed the relevant training.
- Refresher sessions must be held to ensure the operating staffs are aware of their environmental obligations.

Therefore, prior to the commencement of operation activities on site and before any person commences with work on site thereafter, adequate environmental awareness and responsibility are to be appropriately presented to all staff present onsite, clearly describing their obligations towards environmental controls and methodologies in terms of this OEMPr. This training and awareness will be achieved in the following ways:

8.1.1 Environmental Awareness Training

Environmental Awareness Training must be undertaken by the Phasha and must take the form of an on-site talk and demonstration by the Depot Manager before the commencement of operation activities on site. A record of attendance of this training must be maintained by Phasha, at the depot.

8.1.2 Induction Training

Environmental induction training must be presented to all persons who are to work on the site – be it for short or long durations.

This induction training should be undertaken by the Depot manager and should include discussing the developer's environmental policy and values, the function of the OEMPr and the importance and reasons for compliance to these. The induction training must highlight overall dos and don'ts on site and clarify the repercussions of not complying with these. The reporting procedure must be explained during the induction as well. Opportunity for questions and clarifications must form part of this training. A record of attendance of this training must be maintained by Phasho, at the depot.

8.1.3. Toolbox Talks

Toolbox talks should be held on a scheduled and regular basis (at least once a month) where the depot manager and all employees on site hold talks relating to environmental practices and safety awareness on site. These talks should also include discussions on possible common incidents occurring on site and the prevention of reoccurrence thereof. Records of minutes of the toolbox talks and attendance registers must be kept on file.

9. MONITORING PROGRAMME

A monitoring programme must be in place not only to ensure conformance with the OEMPr, the WML (once issued) and all permits pertaining to the facility, but to also monitor any new environmental issues and impacts which have not been accounted for in the OEMPr that are, or could result in significant environmental impacts for which corrective action is required. The period and frequency of monitoring will be stipulated in the WML (once issued). In addition, regular internal auditing of the facility is also required. Where this is not clearly dictated, Phasha will undertake routine internal and external audits as stipulated in the National Norms and Standards for the Storage of Waste, 2013. Phasha will ensure that the monitoring/auditing is conducted and records kept on file for the review during the external independent audit.

The aim of the monitoring and auditing process would be to routinely monitor the implementation of the specified environmental specifications, in order to:

- Monitor and audit compliance with the prescriptive and procedural terms of the environmental specifications
- Ensure adequate and appropriate interventions to address non-compliance
- Ensure adequate and appropriate interventions to address environmental degradation
- Provide a mechanism for the lodging and resolution of public complaints
- Ensure appropriate and adequate record keeping related to environmental compliance
- Determine the effectiveness of the environmental specifications and recommend the requisite changes and updates based on audit outcomes, in order to enhance the efficacy of environmental management on site
- Aid communication and feedback to authorities and stakeholders.

The external independent auditor will audit compliance with the OEMPr, WML, National Norms and Standards for the Storage of Waste (2013), WTRs (2009) and any other applicable legislation. The external independent auditor must have the appropriate experience and qualifications to undertake the necessary tasks. The external independent auditor must report any non-compliance or where corrective action is necessary to the Depot manager and/or any other monitoring body stipulated by the regulating authorities. The following reports will be applicable:

9.1 Internal Audits and Reporting

Internal audits must be undertaken bi-annually (twice a year). This report must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions and the requirements of the OEMPr. Findings of the audit must be made available to the external auditor.

Given the nature and scale of the facility environmental audits should be conducted biannually by Phasha. In addition, Phasha should appoint an independent external auditor to audit the Polokwane Depot.

9.2 External Biennial Audits and Reporting

An independent external auditor must be appointed to audit the waste storage facility biennially (once every two years). The auditor must compile an audit report documenting the findings of the audit. This report must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the WML conditions and the requirements of the OEMPr. This report must be submitted to the competent authority – LEDET. The external audit reports should also be retained on site.

10. ON GOING UPDATE OF THE OEMPr

The OEMPr is a dynamic document, which must be updated when required. It is considered critical that this OEMPr be updated to include any additional site-specific information. This will ensure that the operation activities are planned and implemented taking identified environmental issues into account.

11. CONCLUSION

Provided this project is mitigated, as per the OEMPr, the project will result in limited negative environmental impacts that can be mitigated through implementation of this OEMPr. It is Phasha's responsibility to ensure that this OEMPr is made binding on all responsible parties identified. All responsible parties should thoroughly familiarise themselves with the requirements of the OEMPr.

Parties responsible for transgression of this OEMPr should be held responsible for any rehabilitation that may need to be undertaken. Parties responsible for environmental degradation through irresponsible behaviour/negligence should receive penalties.

APPENDIX 1: INCIDENT AND ENVIRONMENTAL LOG

ENVIRONMENTAL INCIDENT LOG				
Date	Env. Condition	Comments <i>(Include any possible explanations for current condition and possible responsible parties. Include photographs, records etc. if available)</i>	Corrective Action Taken <i>(Give details and attach documentation as far as possible)</i>	Signature

