

**SOUTH AFRICAN BREWERIES
(PTY) LTD. – ROSSLYN PLANT**

May 2023

ENVIRONMENTAL MANAGEMENT PROGRAMME

EMPr-01



Details of Role Players

APPLICANT DETAILS

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ACRONYMS AND ABBREVIATIONS

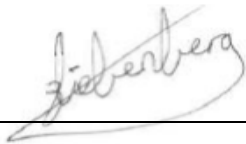
- BMP Best Management Practices
- DEA - Department of Environmental Affairs
- ECO - Environmental Control Officer
- EPRP Emergency Preparedness and Response Plan
- EMPr - Environmental Management Programme
- EIA - Environmental Impact Assessment
- EIAr - Environmental Impact Assessment Report
- ISO - International Organization for Standardization
- NEMA - National Environmental Management Act
- PPE - Personal Protective Equipment
- SAHRA - South African Heritage Resource Agency

DECLARATION OF INDEPENDENCE

The independent Practitioner

I, **Zander Liebenberg**, declare that I –

- act as the independent Environmental Practitioner for the Environmental Management Programme
- this report covers the Environmental Impacts and proposed Mitigation measures only and no other scope of work was requested for this study and the information should be interpreted with caution
- do not have and will not have financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;
- have no and will have any vested interest in the proposed activity proceeding;
- undertake to disclose, to the competent authority any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2010;
- BioBlue accepts no responsibility for the accuracy of any third-party data used in the production of this report.



Signature of Author (EAP) – Zander Liebenberg EAPASA Registered

Date: May 2023

1 INTRODUCTION AND PROJECT BACKGROUND

The Environmental Management Programme (EMP) sets out a formal system by which the project will plan, management and implement mitigation measures that will avoid or reduce the significance of impacts related to the health, safety and security and environment.

This EMP is prepared as part of the requirements of the 2014 EIA Regulations promulgated under the National Environmental Management Act (NEMA, Act 107 of 1998).

South African Breweries (Pty) Ltd. initiated the process to apply for a Section 24G Application in terms of the National Environmental Management Act, for the unlawfully constructed road on Erven 128, 129 and a Portion of Erf 75. The company received the following reference number from the Department: S24G/03/22-23/0595.

The company constructed the road as a truck staging area and for driveway purposes as the one lane will be used as a driveway. An ablution facility will be developed for the truck drivers within the applicant's current property boundary. The proposed development was aimed at resolving the current challenges that the applicant was facing with adjacent neighbours that had problems with the trucks occupying the road and hampering their use of it.

Table 1: Farm Portions and SG Codes

Erf	21SG Code
Portion 0 of Erf 128 Rosslyn Extension 1 JR	T0JR02220000012800000
Portion 0 of Erf 129 Rosslyn Extension 1 JR	T0JR02220000012900000
A Portion of Portion 0 of Erf 75 Rosslyn Extension 1 JR	T0JR02220000007500000

The EMP is intended as a "living" document and should continue to be updated regularly. The aim of this report is to establish an Environmental Management Programme (EMPr) that would serve as a management tool that will be used to ensure that the impacts of the construction and operational phases of the project are prevented or minimized and that the positive benefit of the project is enhanced.

2 ENVIRONMENTAL MANAGEMENT PROGRAMME

2.1 OBJECTIVES OF THE EMP_R

This EMP_R will provide the actions for the management of identified environmental impacts resulting from the proposed development and a detailed outline of the implementation programme to minimise and/ or eliminate the anticipated negative environmental impacts. The EMP_R will also provide strategies to be used to address the roles and responsibilities of environmental management personnel on site, and a framework for environmental compliance and monitoring. The aim of this document is to ensure the establishment of an environmentally sustainable project.

The EMP_R is a dynamic document that can be subject to influences and changes that may arise during the project process and thus the document needs to be able to evolve with the project to ensure good environmental practice during all the project phases. The management measures contained within this document is based on the possible impacts identified during the environmental impact assessment process.

The objectives of the EMP_R:

- To ensure compliance with guidelines from the regulatory authority, national legislation, international best practices, rules, other applicable laws applicable to the project on all relevant points.
- To follow the general requirements under the ISO 14001 standard.
- To provide feedback for continual improvement in environmental performance.
- To respond to unforeseen events.
- To identify the required mitigation measures that could reduce the potential impacts to minimal levels and to manage these possible impacts associated with the development.
- To set out the specific actions that need to be taken to assist in mitigating the environmental impacts of the proposed project.
- Establish management structures to address the concerns and complaints of I&APs with regards to the project.
- Specify time periods for certain aspects of the project that need to be implemented.

2.2 LEGAL REQUIREMENTS

The applicant and the contractor must identify and comply with all South African National and Provincial environmental legislation, including associated regulations and all local by-laws relevant to the project.

The EMPr has been compiled in accordance with Appendix 4 of the EIA Regulations of 2014. The EMPr will comply with Section 24N of NEMA and will be undertaken as per the legislative requirements as follows:

- Provide details of the EAP who undertook the EMPr and the expertise as well as a curriculum vitae of the EAP to prepare an EMPr thereof.
- Provide a detailed description of the aspects of the proposed development that are covered by the EMPr as identified by the project description;
- Produce a map which superimpose the proposed development, its associated structures and infrastructure on the environmental sensitivities of the preferred development site, indicating areas that should be avoided including buffers;
- Provide a description of the impact management objectives including management statements identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process of this S24G Application for all the phases of the proposed development.
- Avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; and
- Comply with any prescribed environmental management standards or practices.

2.3 DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Zander Liebenberg completed his Hons. Degree at the North-West University in Potchefstroom in 2012 and has been working in the environmental consultancy field for 7 years. He has been involved in numerous Environmental assessment projects and Water-use License applications and is a registered member of EAPASA, SACNASP and IEMA (UK).

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Figure 1: SAB Road Development – Locality Map



Figure 2: SAB Road Development – Development footprint

2.4 STRUCTURE OF THE ENVIRONMENTAL MANAGEMENT PROGRAMME

This document is divided into the three phases of development that needs to be monitored, namely the Rehabilitation Phase and the Operational and Maintenance Phase.

2.4.1 Rehabilitation Phase

This section of the document provides guidelines and management measures that need to be adhered to during the Rehabilitation phase. As the construction phase had been completed, the remaining natural area needs to be rehabilitation and maintained as per inputs from the specialist studies conducted during the assessment phase.

2.4.2 Operational and Maintenance Phase

This section of the document provides management measures for the operational and maintenance phases of the project. These measures need to be adhered to by the applicant to ensure the sustainable continuation of the project. Environmental Awareness training for employees that will be involved with the project will also ensure that the whole structure of the company is aware of the requirements stipulated within the EMPr and management actions that need to be taken.

2.4.3 Decommissioning Phase

Some mitigation measures for the decommissioning phase have been established, however as the EMPr is a dynamic document that needs to evolve with the project, thus once appropriate decommissioning land-use has been approved, the mitigation measures for this phase will be compiled and submitted for approval.

3 DETAILED ENVIRONMENTAL MANAGEMENT PROGRAMME

This document stipulates the requirements to be implemented by the applicant as per the recommendations compiled within the Environmental Impact Assessment Process and the various specialist studies conducted.

The provisions of the EMPr are binding on the Applicant during the life of the project. It is essential that the requirements contained within this document be understood, implemented, and adhered to throughout the rehabilitation and operational phases.

Parties (I&APs), State Departments and other stakeholders are afforded a period of 30 days, for each draft report (Draft EMPr and Draft EIR), to comment on the content of that draft report. The comments received from I&APs, State Departments and other Stakeholders are incorporated into a CRR which forms part of each final report, the final report inclusive of the CRR will be submitted to GDARD for assessment and decision making.

3.1 REHABILITATION PHASE

The key impacts identified for Rehabilitation phase of the project, as mentioned above, are listed below:

3.1.1 Possible Impacts Identified

- Proliferation of alien and invasive species
- Impact on Indigenous Natural Vegetation
- Heritage Resources
- Water Pollution
- Socio-economic impacts

Table 2: Rehabilitation Phase

ASPECT	CUMULATIVE IMPACTS	IMPACT MANAGEMENT OUTCOMES	MITIGATION MEASURES / MANAGEMENT ACTIONS	IMPLEMENTATION RESPONSIBILITY AND TIMING
Impact on Indigenous Natural Vegetation due to the road construction project		Rehabilitate disturbed areas and minimize the impact on these areas	- Construction impacts must be contained within the current footprint and disturbed areas. The remaining areas not constructed should be rehabilitated and revegetated. - The rehabilitation must be monitored weekly until signed-off by the ECO.	Site Management ECO The site must be monitored every two weeks
Establishment and spread of declared weeds and alien invader plants	If weed and alien invasive plant species are allowed to proliferate it could spread to adjacent sites	Minimise the possible impacts of alien invader species on the site and ensure no spread to adjacent areas	- A responsible person must be appointed to monitor the emergence of alien invader and weed species on site and control these species to ensure that they do not proliferate and spread across the site. - The on-going monitoring and removal programme need to be implemented continuously and the responsible person must	Site Management ECO The site must be monitored every two weeks

ASPECT	CUMULATIVE IMPACTS	IMPACT MANAGEMENT OUTCOMES	MITIGATION MEASURES / MANAGEMENT ACTIONS	IMPLEMENTATION RESPONSIBILITY AND TIMING
			conduct a site walk through every two weeks.	

3.2 OPERATIONAL AND MAINTENANCE PHASE

3.2.1 Possible Impacts Identified

- Proliferation of Alien and Invasive Species
- Water Pollution
- Impacts on surrounding landowners.
- Rubble littering

3.3 DECOMMISSIONING PHASE

Some mitigation measures for the decommissioning phase have been established, however as the EMP is a dynamic document that needs to evolve with the project, thus once appropriate decommissioning land-use has been approved, the mitigation measures for this phase will be compiled and submitted for approval.

Table 3: Operational and Maintenance Phase

ASPECT	CUMULATIVE IMPACTS	IMPACT MANAGEMENT OUTCOMES	MITIGATION MEASURES / MANAGEMENT ACTIONS	IMPLEMENTATION RESPONSIBILITY AND TIMING
Potential for surface water pollution	Direct: As the new road infrastructure will also be utilized as a truck staging area the stormwater can be contaminated by possible pollution from oil and fuel spillages	Ensure that any possible pollution can be curbed and that employees are trained in spill clean-up.	- Trucks and other vehicles should be serviced on a regular basis and drivers should ensure that the trucks remain in good working order. - Drip trays can also be made available when the trucks will be waiting for longer periods of time. - Have spill kits available on site.	Site Management Environmental & Safety Officer Monitor the site on a weekly basis. Have quarterly environmental awareness training for employees
Establishment and spread of declared weeds and alien invader plants	Direct: The transformed areas are vulnerable to alien invasive plant establishment.	Minimise the possible impacts of alien invader species on the site and ensure no spread to adjacent areas	Avoidance / Mitigation: A responsible person must be appointed to monitor the emergence of alien invader and weed species on site and control these	Site Management Environmental & Safety Officer The site must be monitored every two weeks

ASPECT	CUMULATIVE IMPACTS	IMPACT MANAGEMENT OUTCOMES	MITIGATION MEASURES / MANAGEMENT ACTIONS	IMPLEMENTATION RESPONSIBILITY AND TIMING
			species to ensure that they do not proliferate and spread across the site. An on-going monitoring and removal programme needs to be implemented to detect and quantify any aliens that may become established and provide for the management of these species.	
Littering and waste pollution	Increase in people on site could lead to waste reaching the stormwater channels and adjacent natural areas	Increase awareness among employees and ensure that littering is minimized.	Waste bins must be placed strategically around the site and be emptied regularly into a central waste holding area, before being transported to the nearest registered landfill site.	Site Management Environmental and Safety Officer Waste bins must be monitored on a weekly basis

ASPECT	CUMULATIVE IMPACTS	IMPACT MANAGEMENT OUTCOMES	MITIGATION MEASURES / MANAGEMENT ACTIONS	IMPLEMENTATION RESPONSIBILITY AND TIMING
			Waste can also be separated to ensure that recycling can be done more effectively.	
Stormwater infrastructure		Minimized the possibility of pollutants entering the stormwater infrastructure.	- Stormwater infrastructure must be inspected on a weekly basis or after a rain event to ensure that there are no blockages in the system. - No litter or hazardous substances should be allowed to enter stormwater channels, and these must be regularly cleaned during inspection.	Site Management Environmental and Safety Officer Stormwater infrastructure to be inspected on a weekly basis

4 IMPLEMENTATION OF THE EMPR

4.1 ROLES AND RESPONSIBILITIES

Environmental Incident Register:

An environmental register must be compiled and kept on site at all times and be freely accessible to the whole team. This register must be utilised to record all environmental incidents that occur as a result of the operational aspects on site. The register must contain the following:

- Complaints from neighbouring businesses and any environmental incidents on site.
- Actions taken to remedy the incident.

Quarterly Toolbox talks must be held with all the employees to that must include:

- Environmental issues
- Health and Safety
- Incidents and mitigation measures

Table 4: Roles and Responsibilities

Role	Responsibilities
Site Management	Site Management is the 'owner' of the project and, as such, has the following responsibilities: • Be familiar with the recommendations and mitigation measures of this EMPr; • Ensure that the conditions of the Environmental Authorization issued in terms of NEMA are fully adhered to
ECO	Responsibilities of the ECO are to: • Oversee the implementation of the EMPr during the Rehabilitation phase and audit the site after rehabilitation has been completed. • Record-keeping and monitoring of compliance with conditions of the Environmental Authorization.

5 PROPOSED MONITORING SCHEDULE

MONITORING ASPECT	FREQUENCY			
	Daily	Weekly	Monthly	Quarterly
Weed and invasive species control			x	
Waste Management		x		
Safety	x			
Hazardous Substances		x		
Maintenance	x			
Water			x	x

Weed and invasive species control:

During the rehabilitation phase, it is very important that the site be monitored for the establishment of weeds and alien invasive species every two weeks. These species must be removed, ideally before flowering to ensure that they do not proliferate on site and hamper rehabilitation activities.

- Responsible person must be appointed to monitor the construction areas.
- Weed species must be removed manually as far as possible and minimize the use of pesticides.
- Monthly monitoring registers must be kept at the site office.

Hazardous Substances:

Hazardous substances such as oil, fuel and cement must be stored within enclosed or bunded areas to ensure that any spillages can be contained in that area and avoid any possible pollution of soil or water resources.

- The enclosed / bunded storage areas must be inspected on a weekly basis by the responsible person appointed during the construction and operational phases.
- A register must be kept of maintenance done and any environmental accidents on site.

- Certificates must be kept when hazardous substances such as oil is taken off site to a registered site on a regular required basis.

Maintenance:

Trucks must not be serviced on the road area and it must only be done in a specifically designated areas in order to contain any possible spillages or leaks.

****Refer to Management Plans below for other monitoring requirements.**

SCORE	COMPLIANCE RATING	EXPLANATION
5	Compliant	All EMPr requirements have been met
4	Substantial Compliance	Most of the requirements have been met
3	Broad Compliance	50% of the requirements have been met
2	Partial Compliance	Only partially compliant with the requirements
1	Non-Compliance	None of the requirements have been met

6 ENVIRONMENTAL AWARENESS PLAN

The successful implementation of the stipulations contained within this EMPr and the granted Environmental Authorization is dependent on the adequate distribution of the requirements of the said conditions to all stakeholders, contractors and site management. The Environmental awareness plan will assist the contractors and site management to familiarise all the members of their respective teams with the required conditions within the EMPr and EA.

6.1 PROJECT SITE INDUCTION

All new drivers and other staff need to undergo a site induction session that will comprise of safety and environmental aspects. All staff need to be aware of the safety requirements on site, the contents of the EMPr and the reporting structure in the event of an incident.

6.2 GENERAL ISSUES AND CONCERNS

- Employees must report on concerns around the site that they have seen such as leaking pipes, spills and the clean-up procedures implemented.
- Employees and Management need to keep an open and continuous communication system.

6.3 WHAT IS AN ENVIRONMENTAL IMPACT

- An Environmental Impact is the result, either good or bad of a man's actions on the natural environment. This results in one or many changes in the environment and may also affect the availability of resources and the environment's capacity to function.

6.4 PROCEDURE FOR CLEAN-UP OF HAZARDOUS SUBSTANCES

- Evaluate the situation and if possible, stop the source of the spill.
- Determine the nature of the spilled material.
- Put on the appropriate protective gear and isolate the affected area.
- Use the appropriate absorbent / neutralizer.
- Remove the spilled substances with the appropriated spill kit.
- Decontaminate affected surfaces with a mild detergent and water.
- EMPLOYEES MUST REPORT TO SITE MANAGEMENT AND IT MUST BE NOTED IN THE ENVIRONMENTAL INCIDENT REGISTER

6.5 PROCEDURE FOR MAINTENANCE AND INFRASTRUCTURE MANAGEMENT

- Only service Machinery and vehicles in designated areas.
- Regularly check all vehicles and machinery for fuel and oil leaks.
- Inform the site manager of any damage or leaking vehicles and machinery so that repairs can be scheduled.
- Store machinery, vehicles and materials in demarcated areas.
- Only refuel vehicles in a bunded area or with Drip Trays present.
- Immediately clean any accidental fuel and oil spills – do not hose spills into natural areas.

6.6 MANAGEMENT OF ALIEN INVASIVE PLANTS

- Determine the characteristics of the species and calculate the severity of the impact and the amount of effort needed to control it.
- Employees must continuously monitor the entire site and especially the newly rehabilitated area adjacent to the road.
- The plants must be controlled and eradicated from site.

6.7 INCIDENT REPORTING PROCEDURE

- Employees are required to report any and all environmental related problems, incidents and pollution so that the appropriated mitigation action can be implemented.
- Reporting procedure / hierarchy:
 - Employee –
 - Supervisor –
 - Farm Manager –
 - Environmental Consultant (To notify Department within 24 Hours)

6.8 WATER CONSERVATION

South Africa is a water scarce country, and we need to implement water conservation methods on project scale to ensure that each operation is run sustainably.

Water Conservation methods:

- Rainwater Harvesting
 - Jojo Tanks connected to the office buildings through the gutters. This basic method will lessen the water demand from other water resources.
- Water Pollution
 - One of the primary sources of water pollution is spills from vehicles and equipment that are not regularly maintained.

6.9 WASTE MANAGEMENT OF DOMESTIC SOLID WASTE:

- General waste generated must be collected in waste bins that are emptied on a regular basis into a central waste collection facility to be disposed of at the nearest municipal disposal site.
- Recycling is always desirable and if the separation of waste can be encouraged and implemented, this would be highly beneficial.
 - Representatives should be appointed by the site management to ensure that there is a responsible person for every activity on site.

7 MANAGEMENT PLANS

7.1 ALIEN INVASIVE MANAGEMENT PLAN

Objective: Avoid the establishment and spread of alien invasive species during all phases of the development.

- All encountered alien plant species recorded on site should be removed.
- Remove all alien vegetation, preferably as juveniles, with caution to prevent the spread of seeds and therefore the plants.
- Monitor the site continuously for the establishment of alien plant species during the operational and maintenance phase.
- Monitor the site for any alien plants on a quarterly basis for one year after closure and rehabilitation.