

ENVIRONMENTAL MANAGEMENT PLAN & COMPLIANCE MONITORING TEMPLATE

CONSTRUCTION OF THE BURGERSFORT PRIVATE HOSPITAL

*Environmental Compliance Officer (ECO) service provided by
Afrika Enviro & Biology*

Environmental Control Officer: Danie van der Walt

Project Information Table			
Project name	CONSTRUCTION OF THE BURGERSFORT PRIVATE HOSPITAL		
Location	ERF 8323, BURGERSFORT EXTENSION 47		
Environmental Authorization	16/1/7/2-GS27 (Validated)	Date of EA	2008-10-17
Owner of EA	Gillyfrost 56 (Pty) Ltd	Contact person	Mr Buks Van der Wal
Owner of project	Burgersfort Hospital Property (Pty) Ltd	Contact person	Mr Andrew Masekesa
		Project Manager	Mr Simon Chalwa
Contact No	082 492 5678 (Project Manager)	Email address	simon@purlin.co.za (Project Manager)
Name of ECO	Mr Danie van der Walt	Company	Afrika Enviro & Biology
Contact No	072 623 1845	Email address	danie.aeb@gmail.com
Civil Contractor	Lemay Construction (Pty) Ltd	Site agent	Mr Craig Randall
Contact No	060 590 2385	Email address	craig@lemay.co.za
Date of EMP	2023-02-01		

1. BACKGROUND and APPROACH

This project entails the construction of a Private Hospital on the location referred to above. The project is authorized by LEDET (Limpopo Province); (Appendix 1). The conditions require (inter alia) that an Environmental Control Officer (ECO) is appointed with the responsibility to monitor the project for compliance with the EA and Environmental Management Plan / Program (EMP). The management actions of the EMP are presented with the Environmental Management & Audit Table (Section 4). The purpose of this environmental monitoring and auditing procedure is to assess compliance of the construction phase of the project with the management procedures developed during the EIA process and included with the EA and EMP. The EMP is monitored for compliance and audited for effectiveness.

2. Legal requirements & responsibilities

Legislation and guidelines that were considered for the EMPr are as follows:

- Constitution of the Republic of South Africa (No 108 of 1996)
- National Environmental Management Act (No 107 of 1998)
- National Environmental Management: Waste Act (No 59 of 2008)
- National Environmental Management: Air Quality Act.
- National Environmental Management: Biodiversity Act (No 10 of 2004)
- National Environmental Management: Protected Areas Act (No 31 of 2004)
- Environmental Conservation Act (No 73 of 1989)
- National Water Act (No 36 of 1998)
- Conservation of Agricultural Resources Act (No 43 of 1983)
- National Heritage Resources Act (No 25 of 1999)
- Occupational Health and Safety Act (No 85 of 1993)
- Promotion of Access to Information Act (2000)
- National Roads Act (No. 7. 1998)
- Advertising on Roads and Ribbon Development Act (No. 21, 1940)
- EIA regulations and guidelines (2010)
- Limpopo Environmental Management Act (LEMA)
- Environmental Management Framework for the Olifants and Letaba Rivers Catchment Areas (DEAT; 2009).
- Relevant Provincial regulations and Municipal bylaws

This EMP, which forms an integral part of the contract documents, informs the Contractor as to his duties in the fulfillment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The Contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail. The tasks and responsibilities are set out in the following sections:

2.1 Project owner

The owner of the project is responsible for ensuring that the activity is implemented according to the requirements of the EMP. The owner must ensure that relevant professionals are appointed to perform functions as required by the authorities and legislation. The owner will have the following responsibilities:

- To ensure there is sufficient allocation of resources to the professional role players to perform their tasks in terms of the EMP;
- In event that the environment is significantly negatively affected, the owner will be responsible for rehabilitation and restoring the affected areas to an acceptable level;
- The owner must include the EMP with all tender and contractual documents in order to ensure that all parties involved are bound to the terms of the EMP;
- An Environmental Control Officer (ECO) must be appointed to oversee the environmental aspects of the development and audit compliance with the EMP.
- The owner or developer must provide the contractors with a copy of the EMP and any other relevant documentation or supporting documents.

2.2 Contractor

The contractor is bound to the terms and conditions of the EMP by way of the contract with the developer. The contractor must be familiar with the terms of the EMP before commencement of the activities on site and must request clarification on any issues that is unclear. The main responsibilities to this regard are as follows:

- The contractor must comply with all the terms and conditions of the EMP and must ensure that all subcontractors are initiated with the EMP and comply with the terms of the EMP;
- The contractor must attend a site inspection and induction session with the ECO to identify and be informed of the sensitive elements of the site and take cognizance of the boundaries of the construction area. The ECO must point out any particular site-specific elements of importance;
- The contractor must adhere to all verbal all written orders given by the Environmental Control Officer (ECO) or other responsible persons (project manager or site engineer) in terms of the EMP.

2.3 Environmental Control Officer

The owner must appoint an independent environmental officer (ECO) whom will have the responsibility of implementing the EMP and ensuring compliance with the conditions of this environmental authorization. The main responsibilities and duties of the ECO are as follows:

- The priority of the ECO is to ensure that the site environment is not significantly negatively affected by the proposed activities and that minimal environmental damage is done during construction and adequate measures is emplaced to ensure that future operations and maintenance does not significantly impact on the environment.
- The ECO shall liaison with relevant authorities and keep record of all correspondence with external interested and affected parties;

- To ensure that the proponent, construction team, the operational and maintenance workers are acquainted with their responsibilities.
- To ensure compliance with regulatory authorities requirements.
- To respond to changes in the project implementation not considered during the assessment phase, and respond to unforeseen events.
- To verify environmental performance through information on impacts as they occur.
- To establish proper communication channels and provide feedback for continual improvement.

2.4 Environmental Incidents

In order for the EMP to be efficient in case of any environmental incidents, the following criteria should be adhered to:

- In event of a significant environmental incident occurring the contractor must notify the ECO and/or the authorities within 24 hours of occurrence;
- Investigate the cause of the incident and compile an environmental incident report;
- Take corrective measures to mitigate the incident;
- Rehabilitate any residual damage to the environment;
- Introduce alternative operating procedures and/or technology to prevent a recurrence of the incident;

3. REPORTING

The report essentially uses the conditions of the ROD and specifications and performance requirements of the EMP as a checklist, against which compliance is measured. As per National requirements, each element of the ROD and EMP is scored as follows:

- 3 - best practice/full compliance
- 2 - satisfactory (viz. >50% compliance)
- 1 - unsatisfactory (viz. <50% compliance)
- 0 - nothing in place
- n/a - not applicable

The total score, average score and percentage compliance for each aspect (all elements) is calculated. 'Summary of Results' tabulates the results (total score, average and percentage compliance of each environmental aspect).

This report will be provided to the stakeholders and contractors involved with the project and will be provided to the competent authority on request or in case of a serious or continuous non-compliance. Non-compliance with the conditions will jeopardize the continuing of the project as the authorities may direct that all activities are ceased due to a non-compliance or until remediation is conducted and completed.

A FINAL AUDIT WILL BE CONDUCTED WITHIN 14 DAYS OF COMPLETION. The final audit will focus on compliance with the conditions of the EA.

4. COMPLIANCE with the management requirements of the EMP

The management actions of the EMP are integrated with the conditions of the EA and are provided in the audit format in the following table (only aspects that are applicable at any given time are audited):

Environmental Management Procedures & Compliance Audit Table

Aspect	Management / Mitigation measures	Compliance	Notes / Remediation
1. Legal	1.1 Legal requirements and permits <ul style="list-style-type: none"> The owner and contractor must have all legal permissions and approvals from the authorities before construction may commence. The owner of the authorization is responsible for compliance with the provisions for Duty of Care and Remediation of environmental damage as contained in section 28 of NEMA. 		
	2.1 Irresponsible construction activities will lead to the unnecessary loss of biota and disturbance to natural habitat. <ul style="list-style-type: none"> Construction activities must be supervised and be respectful of the environment. Damage and disturbance to vegetation must be limited to the necessary minimum only. Spoil material may be used for firewood. Firewood may not be sourced from trees in the surrounding area. Animals may not be hunted, snared or purposefully disturbed or harmed. Problem animals and snakes that create problems must be removed or managed by a specialist. No open (unprotected) fires are allowed. 		
2. Biodiversity and ecology	2.2 Spreading of alien and invasive vegetation <ul style="list-style-type: none"> Damage and disturbance to vegetation must be limited to the necessary minimum only. Alien invasive vegetation, weeds and bush encroachment must be monitored and controlled. 		
	2.3 Negative impact on soil and water resources <ul style="list-style-type: none"> Topsoil must be removed and stockpiled separately with the purpose of use for rehabilitation a must be protected from erosion. The drainage areas susceptible to erosion must be identified prior to construction and measures must be taken to prevent/manage erosion at these locations. 		
	<ul style="list-style-type: none"> The occurrence of erosion must be constantly monitored and corrective or preventive action must be taken to address the occurrence thereof. 		
	<ul style="list-style-type: none"> All disturbances must be fully rehabilitated in order to prevent erosion, siltation and invasive and alien vegetation. 		
3. Soil & Water Resources	3.1 Protection of water resources <ul style="list-style-type: none"> Water storage facilities and reticulation must be maintained and monitored for leaks. Water use must be used responsibly and water may not be wasted. Ensure that there is a soak-away at watering points to reduce the risk of pools and streams of water and the generation of mud. No excess or waste water is allowed to be discharged on the soil surface at watering points washing areas. Provide soak-away traps and berms to prevent water from flowing freely and create muddy and unsafe conditions. 		
	3.2 Pollution and waste management <ul style="list-style-type: none"> Hazardous substances, including chemicals, paint, fuel and lubricants must be stored and handled according to standards. Any spills that may occur must be contained and cleaned up immediately after occurring. Refueling and servicing of vehicles and equipment must be performed at designated areas with protected surfaces that will contain spills and can be cleaned easily. Cement must be stored under cover and concrete must be prepared on lined or hardened surfaces in order to protect the environment. Handling and application of cement substances and concrete must be carefully done in order to prevent spills. Spills must be cleaned up immediately after occurring. Spillages of hazardous substances must immediately be reported to the ECO and corrective action must be taken. 		
	<ul style="list-style-type: none"> Sufficient waste management and sanitation facilities must be available to provide for the construction and operational phases. Waste must be stored at a designated collection area and must be sorted for the purpose of recycling. The waste collection point must be protected from wind and for visual purposes by 		

	<p>a shade net barricade.</p> <ul style="list-style-type: none"> Waste may not be burned or buried as a method of disposal. The waste management system must be efficient and improved over time. 		
4. Visual	4.1 Negative visual impacts		
	<ul style="list-style-type: none"> The contractor's camp must be kept tidy and litter free. A dedicated and neat cooking and eating area must be provided for personnel. The construction sites and stockpiles must be kept tidy and litter free. The infrastructure must be well serviced and maintained in order to create a good image and does not appear untidy and dissipated. The buildings, roads and important infrastructure must be maintained in good visual and functional order. 		
	5.1 Loss of heritage sites and items		
	<ul style="list-style-type: none"> Known heritage sites and graves have to be demarcated as no-go areas. Archeological finds and artifacts of heritage importance that are found must be reported to the ECO to make recommendations regarding the management thereof. 		
	6.1 Negative social impacts		
6. Social aspects	<ul style="list-style-type: none"> Personnel must be managed and disciplined in order to uphold an efficient workforce and to prevent unacceptable behavior. Personnel must be trained for the tasks that they are hired for and must have acceptable lodging and sanitation in order to prevent injury and ill health. A dedicated and neat cooking and eating area must be provided for personnel. Proper sanitation and washing facilities must be provided for labour and personnel. Contractors and personnel must be trained and managed in an orderly fashion in order to avoid disputes with the local residents. 		
	6.2 Damage to property and infrastructure		
	<ul style="list-style-type: none"> The corner posts of the site boundaries must be demarcated to the benefit of all contractors in order to avoid accidental trespassing on neighbouring property. The site must be fenced off as soon as site conditions allow therefore. Damage to neighbouring properties and infrastructure must be avoided. Where this cannot be avoided, the affected parties must be notified and the matter must be negotiated and resolved before commencement. Where accidental damage occurs, the applicant / contractor will be held responsible for damages (depending on the contract between the applicant and contractors). However, if such issues occur it must be resolved legally and to all parties' satisfaction. 		
7. Noise, dust & traffic	7.1 Generation of dust, noise, vibrations and air pollution		
	<ul style="list-style-type: none"> Construction activities must be limited to working hours as allowed by the work permit. Activities that create dust and noise must be monitored and must not be conducted on windy days. The speed of vehicles must be limited to prevent the generation of dust. Dust suppressive measures must be employed (e.g. watering bowser). In case that noise is found to be excessive, a specialist must be appointed to investigate and make recommendations to mitigate. Burning of waste is not allowed (air pollution). 		
	7.2 Construction vehicles and activities will cause traffic disruptions		
8. Rehabilitation & maintenance	8.1 Failure to complete efficient rehabilitation and cleanup of the site will lead to cumulative environmental consequences		
	<ul style="list-style-type: none"> The contractors and owner must plan to have sufficient resources and funds available in order for rehabilitation of the environment after construction is completed. All disturbances must be adequately rehabilitated in order to prevent negative impacts on the physical and biological environment. Rehabilitation of disturbed areas and temporary structures and roads must be efficient to prevent soil erosion and negative visual impacts. Proper cleanup of spoil material, construction waste and spillages must be conducted during and after construction and be completed to the satisfaction of the ECO. Aftercare must be provided to ensure that rehabilitation is successful. 		

5. RECOMMENDATIONS

This EMP will be continually updated and amended to improve its efficiency.

At your service



Danie van der Walt (ECO – Afrika Enviro & Biology)
Pri.Sci.Nat. / EAPASA

Date: 2023-02-01

APPENDIX 1
Copy of the Environmental Authorization