SUBDIVISION AND REZONING OF FARM KLEIN DASSENBERG PORTION 16 OF 20, ATLANTIS FOR THE DEVELOPMENT OF A SHOPPING CENTRE.

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

July 2025

DEA&DP Ref: 16/3/3/6/7/1/A1/2/3077/24

106 Murray Street, Goodwood, 7640

068 163 6729

info@ecos-consulting.co.za OR

environmental@ecos-consulting.co.za

www.ecos-consulting.co.za

ecos CONSULTING

Company Registration Number: 2019/619807/07

PROJECT DETAILS:

DEA&DP Reference:	16/3/3/6/7/1/A1/2/3077/24
Title:	Environmental Management Plan Proposed Rezoning and Subdivision of Portion 16 of the farm Klein Dassenberg No. 20 for the development of a shopping centre and associated infrastructure, Atlantis.
Environmental Assessment Practitioner:	ECOS Consulting (Pty) Ltd
EAP (Compiler):	Wiesaal Salaam
Qualifications:	Postgraduate Diploma – Sustainable Development, BSc Honours Conservation Biology
Experience:	Wiesaal has over 18 years' experience within environmental and safety management. She has worked on various projects within the energy sector across South Africa. She has also been involved in auditing of infrastructure within the water and energy sector.
Professional Registrations:	EAPASA 2023/7434 SACNASP: 100012/07
EAP (Reviewer):	Peter Harmse The report was supervised by Peter Harmse (2019/797) who have more than thirty (30) years' experience, in environmental management and environmental impact assessments.
Applicant:	Velaskar Property Development (Pty) Ltd
Report Status:	Revision 0
Date:	July 2025

Table of Contents

ABOUT THIS DOCUMENT

This Environmental Management Plan (EMP) is to facilitate the process whereby the best environmental practices and procedures are adopted by the Applicant, its' Contractors and Sub- Contractors for the planning of the construction, operation and decommissioning of the proposed shopping centre development.

The EMPr must be read in conjunction with the Environmental Authorisation (EA) for this project as well as any other authorisations such as permits or licences.

The EMP is an evolving document that should be revised periodically to accommodate changes including modifications or inclusion of additional mitigation measures that either address, impacts that had not been foreseen by the Environmental Impact Assessment (EIA) process or those measures that have been implemented but found to be ineffective.

Should any amendments to this EMPr be required then an amendment application must be made to the relevant authority. Amendments must be made in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) [GN No. R.326 of 2017] or any relevant legislation that may be applicable.

EMPr Requirements

National Environmental Management Act 107 of 1998

An EMPr must comply with Section 24N of NEMA and the Environmental Impact Assessment Regulations 2014 (GN 982 Appendix 4) which requires that it must include the following:

REQUIREMENTS	REPORT SECTION
a) details of- (i) the EAP who prepared the EMPr; and; (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae;	Project Details
b) a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 5.3
c) a map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Annexure A
d) a description of the impact management [objectives] outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities;	Section 6
e) a description and identification of impact management outcomes required for the aspects contemplated in paragraph (d);	Throughout the EMPr
f) a description of proposed impact management actions, identifying the manner in which the impact management	Section 13

[objectives and] outcomes contemplated in paragraph (d) [and (e)] will be achieved, and must, where applicable, include actions to – (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	
g) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 13
h) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f)	
i) an indication of the persons who will be responsible for the implementation of the impact management actions;	
j) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	
k) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	
l) a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	
m) an environmental awareness plan describing the manner in which- (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Annexure D
n) any specific information that may be required by the competent authority;	N/A
Where a government notice gazetted by the Minister provides for a generic EMPr, such generic EMPr as indicated in such notice will apply.	N/A

ACRONYMS

BA	Basic Assessment
BAR	Basic Assessment Report
CA	Competent Authority
DEA&DP	Department of Environmental Affairs and Development Planning
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ER	Employer's Representative
HWC	Heritage Western Cape
I&AP	Interested and Affected Party
IAP	Invasive Alien Plants
MS	Method Statement
MSDS	Material Safety Data Sheet
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended
NEM: WA	National Environmental Management Waste Act, 2008 (Act No. 59 of 2008), as amended
NHRA	National Heritage Resources Act, 1998 (Act No. 25 of 1998)
NWA	National Water Act, 1998 (Act No. 36 of 1998), as amended
PPE	Personal Protective Equipment
SDP	Site Development Plan
SDF	Spatial Development Framework

1. INTRODUCTION

ECOS Consulting (Pty) Ltd was appointed by the Applicant, Velaskar (Pty) Ltd to undertake a basic assessment process to ensure compliance with the regulations contained in the National Environmental Management Act, 1998 (NEMA, Act no. 107 of 1998) and Environmental Impact Assessment Regulations, 2014 (as amended) for the construction of a shopping centre on Farm Klein Dassenberg, Portion 16 of 20 in Atlantis, Cape Town.

2. PURPOSE

The purpose of this Environmental Management Programme (EMPr) is to ensure that correct measures are implemented on site for the impacts identified during the assessment process to ensure sustainable management (avoid and/or minimise environmental damage) of the environment. The EMPr indicates the mitigation measures to be implemented on site to ensure compliance with the Environmental Assessment regulations.

The purpose of the Environmental Management Programme (EMP) is to ensure compliance with all relevant environmental laws and regulations, facilitating the acquisition of necessary permits and approvals. The EMP aims to protect and conserve local flora and fauna, manage and mitigate potential adverse environmental impacts, and promote the efficient use of natural resources to minimize the project's environmental footprint. It integrates sustainable development principles into all phases of the project, implementing best practices to enhance long-term sustainability.

Additionally, the EMP focuses on ensuring the health and safety of construction workers, tenants, visitors, and the surrounding community by minimizing pollution and environmental hazards and developing emergency response plans. The EMP promotes operational efficiency through resource and waste management, realizing cost savings and demonstrating corporate responsibility.

The EMP must form part of the Contracts Document to which all employees and contractors involved in the construction must be accountable. The EMPr is binding on all contractors, subcontractors, agents, consultants and construction staff.

The EMPr must address inter alia the following:

- Ensure that the Contractor/s and their team are familiar with the environmental procedures to be followed and comply with all recommendations made.
- Environmental Awareness Training (EAT) must be provided to everyone who

works on the site. Health and safety risks tips must be provided as part of the EAT and signed records must be kept on site for all staff who have completed the training.

- Environmental Staff must monitor the site during construction and/or rehabilitation to ensure that any potential negative environmental impacts are identified and mitigated. The implementation of the EMP must be monitored by Environmental Control Officer.

- All environmental issues that arise on site must be recorded and mitigation steps taken to resolve such issues provided.

    - To ensure that the EMPr complies with the environmental regulations.
    - Identifies persons responsible for ensuring compliance with the EMP;
    - Forms a written record of procedures, responsibilities, requirements and rules for Contractor(s), their staff and any other person who must comply with the EMP;
    - Provides for monitoring of compliance and record keeping.

3. SCOPE

This EMPr addresses the construction and operational phases, and all activities associated with this project. Compliance to the EMP shall be monitored by an Environmental Control Officer (ECO) who will visit the site on a regular basis during the construction phase (at least twice monthly). The Client or the Project Manager, on behalf of the Client, will be responsible to ensure the implementation of the requirements of this EMP by all contractors and sub-contractors.

4. PROJECT DESCRIPTION

Velaskar Property Development proposes to rezone and subdivide Portion 16 of the Farm Klein Dassenberg 20 for the purposes of developing a shopping centre. The development of the shopping centre will include associated infrastructure such as internal roads, water, stormwater, effluent and electricity reticulation. The proposed site is located directly opposite the residential area of Witsand in Atlantis, Cape Town (See Figure 1: Site Locality).

The proposed shopping centre will cover an area of 17035m² over a single floor. The construction will include 605 parking bays (See Annexure A: Site Development Plan).

Property Details:

Property Name	Klein Dassenberg Portion 16 of 20
Size of Property	Proposed development portion is 1.7ha, however the full extent of the property is 8ha.
SG Code	C01600000000002000016
Co-ordinates	33° 35‘6.55“S 18° 30‘34.9“E

Figure 1: Site Locality

Access:

Access to the site is from the R304 and/or Saxonwold Road.

5. LEGISLATIVE REQUIREMENTS

5.1 Constitution of the Republic of South Africa

The principle environmental right is enshrined in the Constitution of South Africa, commonly known as the Bill of Rights, in Section 24 which states that “everyone has the right – (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that - (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

5.2 National Environmental Management Act (NEMA), 1998 (Act 107 of 1998)

NEMA is known as the principle overarching (“umbrella”) environmental legislation giving effect to the constitution and in accordance with Section 28 Duty of Care under NEMA requires every person who causes, has caused, or may cause significant pollution or degradation of the environment to take reasonable measures to prevent such pollution or degradation from occurring, continuing, or recurring, or in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution and degradation of the environment (also known as polluter pays principle).

The following compliance obligations may apply:

NATIONAL POLICY AND REGULATIONS	
Constitution of South Africa Act (108 of 1996)	Chapter 2 of the Constitution of the Republic of South Africa Section 24, states that "everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and secure ecological sustainable development and use of natural resources while promoting justifiable economic and social development".
National Environmental Management Act (107 of 1998)	Chapter 5 of NEMA, as amended makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the competent authority based on the findings of an EIA.
Environmental Impact Assessment Regulations (2014) (EIA Listing Notices)	Section 24 (5) and 44 of NEMA provides the procedure that should be followed in applying for and monitoring compliance with Environmental Authorisations. NEMA Environmental Authorisation Application Government Notice R983 of 2014 Government Notice R985 of 2014 as amended Government Notice R984 of 2014 as amended NEMA Screening Tool (Specialist Requirements)
Disaster Management Act (57 of 2002)	Provides for the integration and co-ordination of disaster management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery.
Hazardous Substances Act (15 of 1973)	Provides for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances, and for the control of certain electronic products; to provide for the division of such substances or products into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith.

The National Environmental Management: Air Quality Act (NEM: AQA) (39 of 2004)	Provides for the regulation and management against any adverse impacts to ambient air quality.
The National Environmental Management: Protected Areas Act, 2003 (57 of 2003)	Provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes. Certain activities cannot take place within designated areas without an environmental authorisation.
The National Environmental Management: Waste Act (59 of 2008)	Provides for the regulation of waste management to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development.
National Heritage Resources Act (25 of 1999) (NHRA)	Provides for the NHRA Assessment Process Section 38(1) which requires that any person undertaking a development, which includes a listed activity, must notify the responsible heritage resources authority and provide them with details regarding the location, nature and extent of the proposed development.
National Water Act (36 of 1998) (NWA)	Provides for the protection and management of water resources. Section 19 and Section 20 relates to Pollution Management and Section 21, Section 39 and Section 40 relates to water use authorisation that may be required regarding the proposed development, specifically for the application of a Water Use License Authorisation (WULA).
Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947 as amended	Control of aspects concerning the registration, sale, storage and use of pesticides and their active ingredients
Occupational Health and Safety Act (85 of 1993) (OHS)	Provides for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; 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. Within the Act are different Regulations that explains how to implement the different sections of the OHS Act. Some of the Regulations are applicable to all industries whilst others are more specific. The Regulations that would specifically apply to this project are: General Safety Regulation; Construction Regulation; Hazardous Chemical Substances Regulation; Electrical Installations Regulation; Electrical Machinery Regulations; Pressure Equipment Regulations.
LOCAL POLICY AND REGULATIONS (BY-LAWS)	
Municipal By-laws	Numerous By-laws may apply based on the proposed construction and operational activities such as waste storage and disposal, advertising, water, stormwater management etc.

Complying with these laws and regulations will minimise the risks in terms of legal, financial (claims) and rehabilitation costs. It is the responsibility of the Contractor to ensure that all employees working for them and on their behalf are aware of all the environmental legislation pertaining to their impacts on the environment and their scope of work. The Contractor shall keep up to date with legislation changes and ensure they have access to legislation.

Non-compliance to environmental law is a criminal offence and if prosecuted, the Contractor will be liable for any environmental damage incurred.

5.3 APPLICABLE LISTED ACTIVITIES:

The following listed activities apply to the proposed development:

Listing Notice 1 Activity No(s):	Description	Description of the portion of the proposed development to which the applicable listed activity relates.
10	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, wastewater, return water, industrial discharge or slimes – with an internal diameter of 0,36 metres or more; or with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	A sewer raising main linking to the gravity main would need to be constructed to meet the demand of the proposed shopping centre.
27	The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— the undertaking of a linear activity; or ii. maintenance purposes undertaken in accordance with a maintenance management plan.	The development requires the clearance of approximately 1.7ha of an area that was originally composed of Atlantis Sand Fynbos. In its current state, it is composed of approximately 95 % problem and alien plant species with no species of conservation concern found on the site.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or	Farm Klein Dassenberg is located outside an urban area on the peri urban edge of Witsand, Atlantis and is currently zoned as Agriculture. The total area of the proposed development will be 17035m².

	(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	
Listing Notice 3 Activity No(s):	**Description**	**Description of the portion of the proposed development to which the applicable listed activity relates.**
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres - (f) In Western Cape: i. Areas outside of urban areas; (aa) Areas containing indigenous vegetation; …	The internal roads will be a minimum of 7,5 meters, which will be the aisle between the parking bays. All other streets will be approximately 5m wide. Streets for delivery vehicles will be approximately 6 m wide.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed development is approximately 17035m² in extent and will entail the clearing of more than 300m² of an indigenous vegetation classified as endangered. Though the vegetation is classified as endangered, very little indigenous vegetation remains as the site has largely been disturbed due to agricultural and other anthropogenic activities such as dumping of waste, an informal taxi rank and is overgrown with alien vegetation.

6. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The following impacts and mitigation measures have been identified:

6.1 Planning, design and development phase

Aspect	Impact	Mitigation
• Earthmoving and compaction of soil; • Due to the presence of construction vehicles, storage of hazardous substances and various construction related activities, spillages could occur resulting in soil pollution. • It is anticipated that dust generation will occur due to earthworks and construction activities during the construction phase.	Potential loss of heritage resources	• Protection of Historic Eucalyptus sp. avenue by setting back the development to ensure that the treeline isn't impacted by construction activities. • Identified as a no-go area. • In the event that archaeological material or human burials are found, these have to be reported to Heritage Western Cape and the SAPS, as appropriate. • Fencing to be in 'Clear Vu' black mesh or similar.
	Potential soil and groundwater pollution Generation of dust	• Drip trays must be used under parked construction vehicles, equipment, refueling or decanting of hazardous substances. • Drip trays must be inspected to ensure that there are no holes in the trays. • Spill kits must be available on site.

		• Concrete batching must occur within a designated area or on boards. • No washing of equipment or throwing any wastewater into the stormwater under any circumstances. • Storage of hazardous substances must be within a designated area. • Any accidental spillages or leakages from oil, fuel, cement, etc. must be cleaned immediately and disposed of at a licensed land fill. • Reduced speed of vehicles on site. • Dampening of areas during strong winds and dry spells.
• Removal of remnants of indigenous vegetation • Disturbance of any remaining faunal habitats	Loss of indigenous vegetation and faunal habitats	• Tree planting within the development. • Vegetation required for landscaping and rehabilitation should use indigenous plants. • Removal of alien invasives in any open spaces • Appropriate dust control measures to be implemented during construction. • Ensure that the development footprint is kept within the proposed development site.

• Temporary employment opportunities during the construction phase is expected. • Local individuals may benefit from this opportunity.	Temporary employment opportunities. This is a positive impact as the local community will benefit from temporary employment opportunities during construction.	Local contractors, subcontractors and labour to be used where appropriate.
Minor disruptions to traffic to the surrounding areas will occur during the construction stage, as construction vehicles will be utilising the areas to access the sites	Increased traffic congestion and damage to roads.	• All construction vehicles need to adhere to traffic laws. • As far as possible care should be taken to ensure that the local traffic flow pattern is not significantly disrupted. • Construction vehicles should not unnecessarily obstruct the access point or traffic lanes used to access the site. • Appropriate traffic management measures and/ or points men (traffic marshals) should be utilized to assist vehicles entering/exiting the site, particularly where vehicles must cross the path of oncoming traffic. • Speed of construction vehicles and other heavy vehicles must be strictly controlled to avoid

		dangerous conditions for other road users. • The Contractor must ensure that any large or abnormal loads (including hazardous materials) that must be transported to/ from the site are routed appropriately, and that appropriate safety precautions are taken

6.2 Operational phase

Aspect	Impact	Mitigation
The shopping centre will require employees.	Employment opportunities	No mitigation is required.

7. ENVIRONMENTAL IMPACT STATEMENT

7.1 Preferred Alternative:

PLANNING, DESIGN AND CONSTRUCTION PHASE		
POTENTIAL IMPACT	**SIGNIFICANCE RATING**	
	WITHOUT MITIGATION	**WITH MITIGATION**
Biophysical aspects		
Loss of agricultural land	Low	Not applicable
Loss of indigenous vegetation	Low negative	Very low to negligible
Loss of aquatic habitat	Low negative	Very low to negligible
Disturbance of faunal species	Low negative	Negligible
Loss of heritage resources	Low negative	Very low to negligible
Construction related aspects		
Employment opportunities	Low	Low positive
Soil contamination	Low negative	Low negative to negligible
Dust nuisance	Low negative	Low negative to negligible
Waste management	Low negative	Low negative to negligible
Traffic flow	Low negative	Low negative
OPERATIONAL PHASE		
Employment opportunities	Medium to High positive	N/A
Influx of traffic	High negative	Medium negative
Noise nuisance	Low negative	Low negative to negligible
Contaminated stormwater	Medium negative	Low negative
Contamination due to sewage leaks	Medium negative	Low negative

7.2 No – go option

PLANNING, DESIGN AND CONSTRUCTION PHASE		
POTENTIAL IMPACT	**SIGNIFICANCE RATING**	
	WITHOUT MITIGATION	**WITH MITIGATION**
No impact	Low	Low

8. RECOMMENDATIONS BY SPECIALISTS

The following recommendations has been proposed by the various specialist and has been included in the EMPr.

8.1 AQUATIC :

i. A geotechnical study should be conducted to inform the site structural development planning, and;
ii. A site stormwater management plan is developed to ensure that site drainage is formally controlled.

8.2 HERITAGE

i. Any vehicular ingress/egress points along the western boundary of the site will be located at existing gaps in the tree line, and any other gaps will be rehabilitated by active planting of Eucalyptus sp.

8.3 TERRESTRIAL BIODIVERSITY

i. An indigenous garden is established once the development has been completed

8.4 AGRICULTURE

i. Site establishment, earthworks, heavy machinery and construction vehicles must be managed to avoid undue erosion and pollution to the receiving aquifer.
ii. The use of hazardous materials must be avoided as much as possible, and where required, must be properly managed and controlled to prevent site pollution.
iii. Measures to prevent and respond to hydrocarbon spills and site pollution incidents must be implemented, including having spill kits available and following reporting procedures.
iv. In the event of soil contamination, emergency procedures must be followed, and the incident reported to local and national authorities within 24 hours. Remediation measures should be implemented.
v. Construction and operations staff must be trained on pollution and fire prevention best practices.
vi. Construction and operations waste must be appropriately managed by professional waste service providers.
vii. Dust and site-generated debris must be controlled.
viii. Impermeable and bunded surfaces must be used for storage tanks and vehicle parking.
ix. A comprehensive stormwater management plan is highly recommended as a

key mitigation measure.

9. MANAGEMENT AND MONITORING

9.1 Roles and Responsibilities

9.1.1 Project Manager

The Project Manager (PM) will act as the EA Holders representative and will ensure that the conditions of the Environmental Authorisation (EA) are implemented and adhered to. The PM is to ensure that Contractor/s comply with the environmental specifications in this document.

More specifically the PM shall:

- Assume overall responsibility for the effective implementation and administration of the EMPr;
- Ensure that all staff has been made aware of the EMPr and its content in the form of environmental awareness.
- Ensure that the EMPr is communicated to the Contractors;
- Ensure that the EMPr is given to the applicable Construction Supervisor and the Contractors (if utilised);
- Inform Environmental Management of any emergency work carried out within/ near watercourses as soon as such incidents occur (before any emergency work within/ near watercourse commences). If any associated rehabilitation work is needed subsequent to any emergency work, Environmental Control Officer must be informed as soon as it becomes known, so that the necessary applications can be lodged with Department Environmental Affairs and Development Planning (DEA&DP).
- Keep a register of environmental incidents and resolutions (oil spills, complaints, non-conformances, etc.) and other documentation related to the EMPr (MOU and Method Statements);
- Report to the Environmental Officers (EO) any problems related to conformance with this document to be solved in co-operation with the Contractor(s);

9.1.2 Contractor

The Contractor shall:

- Ensure that the environmental specifications of the document are effectively implemented. This includes the on-site implementation of steps to mitigate environmental impacts.

- Monitor environmental performance and conformance with the specifications contained in this document during daily site inspections.
- Discuss implementation of and compliance with this document with the staff at routine site meetings.
- Report progress towards implementation and non-conformances with this document at site meetings with the ECO.
- Ensure that suitable records are kept and that appropriate documentation is available to the ECO.
- Advise the ECO of any incidents or emergencies on site, together with the record of action taken.
- Report and record all accidents and incidents resulting in environmental damage, injury or death.
- Sign the Declaration of Understanding in annexure C to demonstrate accountability to the requirements set out in this EMPr.
- Environmental Control Officer
- The ECO will be appointed by the Applicant at the start of construction phase. The role of the ECO is to assist with the monitoring, and where possible to provide guidance in terms of environmental matters. The ECO will regularly monitor and review the on-site environmental management and implementation of the construction phase of this EMPr.

9.1.3 Environmental Control Officer (ECO)

The ECO shall:

- Ensure that all contractors/subcontractors/employees are fully aware of their environmental responsibilities. This will take the form of an initial environmental awareness-training program in which requirements of this document will be explained
- Any damage to the environment must be repaired as soon as possible after consultation between the ECO, PM and Contractor
- Monitor their actions to ensure that the developer staff and/or contractor are adhering to all stipulations of the EMPr and the EA.
- Be responsible for monitoring the construction activities throughout the project by means of site visits and meetings. This should be documented as part of the site meeting minutes.
- Conducting regular site inspections at the frequency as stipulated in Section 11 of this EMPr.
- Sign off that the PM certify that they shall ensure that all clean-up and

rehabilitation or any remedial action required, are completed prior to transfer of properties.

- Reviewing the Contractor's construction method statements together with the ER.
- Make recommendations to the PM with regards to the issuing of penalties under the EMPr.
- Where necessary, recommend additions and/or changes to the EMPr to the Applicant.
- Submit a monthly Compliance Monitoring Report. This report will be submitted to the Holder of the EA, Contractor, PM and the DEA&DP. The ECO may submit this via email.
- Conduct any audits as stipulated by the Competent Authority in the EA.
- Conduct a final construction audit to ensure that all conditions of the EA and EMPr have been implemented and rehabilitation has been properly implemented.
- Community Liaison Officer (CLO)
- Where necessary / required a representative of the community, as nominated by the community, will be the CLO and has the role of representing the community and managing all communication between the ECO, the Contractor and the community (I&APs). (The details of the CLO are to be forwarded to the Ward Municipality for the area.)

9.2 Public Communication with I&APs

The Project Manager must ensure that the adjacent landowners are informed of the construction activity on the site. Sufficient signage should be erected around the site informing the public of the construction activities taking place. The sign boards should include the following:

i. The name of the Contractor, and;
ii. The name and contact details of the site representative to be contacted in the event of emergencies or for complaint registration.

10. ENVIRONMENTAL AWARENESS TRAINING

The ECO will provide Environmental Awareness for all employees of the Contractor, sub-contractor, and suppliers. The training will be held prior to any work commencing on site.

The Contractors shall ensure that all construction personnel, including senior route staff, sub-contractors and suppliers etc., attend the environmental training prior to commencing work on site. The Contractor shall allow at least one hour for the training.

The training shall focus on aspects included in this EMP as well as other and legislative requirements applicable to the project.

Additional staff, sub-contractors and suppliers coming on to the site must attend an environmental awareness training prior to commencing their duties. It shall be the responsibility of the Contractor's Site Environmental Officer to ensure all personnel working on site are trained in accordance with this EMPr and other requirements.

Environmental toolbox talks shall be conducted on a weekly basis. Daily risk assessments shall include aspects of environmental management applicable to the day's activities.

Records of environmental training conducted, daily risk assessments and weekly toolbox talks shall be maintained and filed in the Environmental File.

11. COMPLIANCE MONITORING

A monitoring programme will be in place to ensure compliance with the EMPr through the contract/work instruction specifications, and to monitor any environmental issues and impacts which have not been accounted for in the EMPr that are/or could result in negative environmental impacts for which corrective actions will be required.

11.1 Inspections:

During the construction phase of the project, inspections must be undertaken by the ECO once every second week. Photographic evidence must be taken at every site inspection. A report must be compiled and kept on file.

Non-conformances shall be identified, and an action plan drawn up by the Contractor to ensure the non-conformity is rectified and re-occurrences prevented.

11.2 Audits:

In terms of Regulation 34 of the EIA Regulations, 2014 (as amended), the holder of the EA (e.g., the Applicant) must, for the period during which the EA and EMPr remain valid, conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, and the EMPr. These audits are necessary to assess whether the EMP is being adhered to and being implemented.

The Environmental Audit Reports must be prepared by an independent person, that is not the ECO, and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended). Any other requirements of the EA or any other authorisations must be incorporated into an Audit where necessary.

The final environmental audit report must be submitted to the Competent Authority within six calendar months of the final environmental audit being undertaken. The holder must, within seven (7) calendar days of the submission of the audit report to the Competent Authority, notify all registered I&APs of the submission and make the audit report available to any registered I&AP on request.

In terms of the NEMA EIA Regulations, 2014 (as amended) Audit Reports must be submitted to the registered Interested & Affected Parties within 7 days of submission to the competent authority.

12. DOCUMENTATION

12.1 ENVIRONMENTAL FILE

The contractor shall maintain an environmental file containing, but not limited to, the following information:

- Project contract/ NEC
- Copy of EA
- Copy of EMPr
- All licenses/permits (if applicable)
- EMPr training attendance registers
- Method Statements
- Signed Declaration of Understanding (Annexure C)
- Toolbox talk attendance registers
- Environmental policies, procedures and requirements
- Training records
- Audit reports
- Progress meetings
- Any project related environmental correspondence
- Environmental complaints and incident register
- Waste disposal receipts
- Waste disposal register
- Chemical toilet service slips
- Non-conformance reports
- Material Safety Data Sheets (MSDS)

The file must be made available to any authorised official representing the Competent Authority on request.

12.2 METHOD STATEMENTS

Methods statements from the contractor will be required for specific sensitive actions on request of the authorities or ECO. All method statements will form part of the EMPr documentation and are subject to all terms and conditions contained within the EMPr document. For each instance where in it is requested that the contractor submit a method statement to the satisfaction of ECO, the format should clearly indicate the following:

What – a brief description of the work to be undertaken

How – a detailed description of the process of work, methods and materials

Where – a description / sketch map of the locality of work

When – the sequencing (phases) of actions with commencement date and completion date estimates.

The contractor must submit the method statement before any particular construction activity is due to start. The method statement must be submitted one week prior to the activity taking place. Work may not commence until the method statement has been approved by the ECO.

As a minimum, the following method statements are required:

- Site establishment;
- Site clearing;
- Topsoil management;
- Concrete batching
- Waste disposal
- Wastewater control and disposal
- Dust control
- Oil spill management
- Traffic management
- Hazardous substances storage and management
- Emergency procedures
- Stormwater management
- Rehabilitation

13. ENVIRONMENTAL ASPECTS AND MANAGEMENT ACTIONS

13.1 PLANNING AND DESIGN PHASE

PLANNING AND DESIGN						
Impact Management outcome: Minimise impact to the environment by adhering to planning and design principles and relevant legislation						
Impact management action	**Implementation**			**Monitoring**		
	Method of implementation	**Timeframe**	**Responsible person**	**Frequency**	**Responsible person**	**Evidence of compliance**
The design of the shopping centre must take into account the recommendations made by the various specialists.	Architectural and design features must include sustainable designs such as energy efficient lighting, maximize natural lighting, etc. Layout and access of the centre must not impact on the Eucalyptus tree avenue on the R304.	Following approval of the proposed development	Architect Consulting Engineer	During the initial design phase of the development	ECO	Design Photographic evidence
All necessary permits/approvals must be obtained prior to site establishment	Apply for approvals/ permits.	Following approval of the proposed development	ECO	Prior to site clearance	ECO	Permit/approval
All proposed construction activities must be identified, and method statements compiled thereof.	Method statements must be compiled of all activities and provided for review and approval.	Prior to site establishment	Contractor	Prior to site establishment	ECO	Method Statement

Compile a stormwater Plan which must be submitted to the City of Cape Town for approval.	Compile a Stormwater Plan	Following approval of the proposed development	Engineer	During the initial design phase of the development	ECO	Report
The development of the shopping centre must take into account the findings from a geotechnical study which will the structural design of the centre.	Conduct a geotechnical study	Following approval of the proposed development	Engineer	During the initial design phase of the development	ECO	Report

13.2 CONSTRUCTION PHASE

SITE DEMARCATION			
Impact Management Outcome: Minimise impacts on the environment and ensure that the development footprint is kept to a demarcated area.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) The existing fenced off area will be the only working area during construction. b) The existing access road shall be used for access purposes. c) No material, vehicle, plant, equipment or laydown area shall be permitted outside the existing fenced area. d) Areas outside the footprint earmarked for working areas shall be approved by the Environmental Officer prior to consultation with the landowner. This is to ensure identified areas are adequately screened for environmental issues. e) All areas outside the existing footprint shall be considered as no-go areas unless written approval has been obtained from the landowner and the ECO. f) Working areas inside the site shall be clearly marked with barricading net. Stockpile areas and storage areas shall be barricaded and housekeeping done neatly and according to type.	The boundary of the site will be agreed upon with the Project Manager. The Contractor shall determine whether the demarcated area is sufficient for construction activities. The Contractor shall ensure that all material, equipment, employees and works remain within the demarcated areas.	Prior to commencement of construction	Contractor

Monitoring	
Frequency	Prior to commencement of construction
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Environmental Inspection Report

SITE ESTABLISHMENT			
Impact Management Outcome: Minimise impacts on the environment and ensure that the development footprint is kept to a demarcated area.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) A construction camp and associated facilities must be established in a way that does not adversely affect the environment. b) Areas must be demarcated for activities such as concrete batching, hazardous storage area, storage of material, toilet facilities, temporary waste storage area etc. **c)** Dangerous and hazardous equipment and material shall be marked as such and barricaded where necessary.	A site layout plan must be developed and provided to the PM and the ECO for approval. Method Statement for site establishment must be provided to the ECO for review and approval.	Prior to handover of the site to the Contractor.	Contractor

Monitoring	
Frequency	Prior to commencement of construction
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Environmental Inspection Report

ACCESS AND TRAFFIC MANAGEMENT			
Impact Management Outcome: Control access to the site and restrict vehicular movement.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Access to the site will be via the existing Saxonwold road and gate. b) No fences, gates or locks shall be damaged to obtain access. Arrangements shall be made in advance to obtain permission for access with the PM if needed. c) All vehicles must be roadworthy. d) Signage and hazard warnings must be put in place. e) Contractors and their employees shall at all times be courteous towards surrounding landowners, and the local community. f) Contractors and their employees shall not cause damage to property. Activities that may cause conflict with landowners, the local work force or the local community shall be avoided. Should conflict arise it shall be immediately reported to the Project Manager or the Community Liaison. g) Vehicles shall be driven at a moderate speed on private roads and shall stay within the statutory speed limit on public roads.	Contractor must ensure that all actions are implemented. Contractor must ensure that all drivers have the appropriate vehicle licenses and that the construction vehicles are in a good condition.	During construction phase	Contractor and PM

Monitoring	
Frequency	During construction phase
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Environmental Inspection Report

SITE FACILITIES			
Impact Management Outcome: To protect the health and wellbeing of site personnel and minimise any impacts to the environment.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Mobile chemical toilets/ablution facilities must be made available for site personnel situated at designated areas of the site. b) No abluting will be permitted outside the designated area. These facilities will be regularly serviced by appropriate contractors.	The Contractor must indicate on the Site Layout plan, all temporary structures used for housing staff, toilets, assembly area etc. The Contractor to ensure that all personnel is aware of the dos and don'ts in terms of the use of facilities and the general construction site.	During construction phase	Contractor and PM
c) Adequate temporary shading must be made available to site personnel to take meals. d) No firewood or kindling may be gathered from the site or surrounds to cook meals or for heating. e) Refuse bins with lids must be provided in all eating areas, particular attention needs to be paid to food waste. f) No feeding of wild animals shall be permitted. Food and food products are to be stored in such a way so as not to attract scavenging animals.			
g) Safe drinking water fit for human consumption must be provided at the site offices and all other working areas. h) No wasting of water will be permitted. i) Non-potable water must be used for construction activities.			

Monitoring	
Frequency	During construction phase
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Inspection report Environmental Compliance Report

NO-GO AREAS			
Impact Management Outcome: Restrict access to No-go areas.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) No-Go areas to be identified based on the environmental assessment and site walkthrough prior to site establishment. b) Temporary fencing must be placed around the perimeter of any No-Go areas.	Erection of temporary fencing Identification of No-go areas prior to construction.	Prior to construction	Contractor PM

Monitoring	
Frequency	Prior to construction
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Inspection report Environmental Compliance Report

VEGETATION MANAGEMENT			
Impact Management Outcome: Minimise impact on the natural vegetation.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Any cleared vegetation should be removed and disposed at a registered waste site and such records kept on file. b) No-go areas (Eucalyptus tree avenue) must be fenced off and avoided. c) No fires are permitted on site as they may result in veld fires. d) Weeds must not be allowed to spread. Monitoring of weed growth within the development footprint should be conducted. e) Invasive plants must be controlled (both invasive plants and weeds must be identified and controlled in such a manner that it is prevented from spreading). f) Herbicides used to control invasive plants should be chosen in consultation with an ecologist.	The Contractor must implement the approved method statement for Vegetation removal. The Contractor must ensure that all no-go areas are avoided. The Contractor must ensure that all employees are made aware of the no-go areas and must ensure that only vegetation within the development footprint is removed.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Inspection report Environmental Compliance Report

EARTHWORKS			
Impact Management Outcome: Reduce erosion due to stockpiling			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) All excavated material and imported material must be appropriately stored on site. b) All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods. c) All stockpiled material must not exceed 2m in height due to safety concerns. d) During high winds, stockpiles must be kept wet to manage dust.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	ECO
Evidence of compliance	Obtain photographic evidence Inspection report Environmental Compliance Report

WASTE MANAGEMENT			
Impact Management Outcome: Ensure that all wastes are appropriately handled, managed and disposed of at a registered landfill site.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Littering is prohibited at all times. b) Bins must be provided on site and waste separated where applicable (papers, bottles and plastics). Bins must be pinned down and closed tightly to avoid been blown by strong winds. Recycling and re-use (where possible) is to be encouraged. c) Bins to be provided in the eating area and staff to utilise the bins for all general waste and avoid littering. d) Under no circumstances is waste to be burnt. e) All excess material must be removed upon completion of any work performed and disposed of in a suitable manner. f) All domestic waste must be collected and disposed of on a weekly basis. g) All waste, including hazardous waste, must be suitably enclosed, labelled and stored until disposal is possible. h) All waste shall be disposed of at a registered waste disposal facility and waste receipts and documentation kept as proof. i) No solid waste shall be stored on site for longer than two months. j) Provision must be made (containers in vehicles) for the separation at source and collection of all waste materials.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment. The Contractor must ensure that all Sub-contractors responsible for the disposal of specific waste implements the actions as set out in the EMPr.	Throughout construction	Contractor

k) During construction operations, surplus concrete may not be dumped indiscriminately on site, but shall be disposed of in designated areas. Concrete trucks or other equipment must not be washed on site. These activities will only be allowed in designated areas, and the water will only be disposed of on soil to be used as backfill. l) All sewage waste from chemical toilets must be removed by a licensed contractor.			

Monitoring	
Frequency	Throughout construction
Responsible person	ECO
Evidence of compliance	Waste disposal records Inspection report Environmental Compliance Report

HAZARDOUS WASTE DISPOSAL			
Impact Management Outcome: Ensure that hazardous wastes are appropriately handled, managed and disposed of at a registered landfill site.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Hazardous waste must be stored in designated areas. b) Hazardous waste must be disposed of at a Class HH site (Vissershok Hazardous Waste facility). c) Disposal records must be provided to the PM. Copies will be provided to the ECO. d) Used oil, lubricants, cleaning materials, etc. from vehicles, machinery or bunded areas shall be collected and sent back to the supplier or removed from the site by an oil recycling company or disposed of at a licensed hazardous waste site. e) Any material that has been contaminated with hazardous materials (oil, paint, petrol, diesel etc.) must be considered as hazardous waste and therefore treated and disposed of as such.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment. The Contractor must ensure that all Sub-contractors responsible for the disposal of specific waste implements the actions as set out in the EMPr.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	ECO
Evidence of compliance	Waste disposal records Inspection report Environmental Compliance Report

NOISE CONTROL			
Impact Management Outcome: To prevent/minimise the impact of noise on employees and surrounding community			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) The Contractor shall be responsible for compliance with the Western Cape Noise Control Regulations, 2013 and all other relevant legislation concerning noise. b) Any complaints pertaining to noise must be reported to the PM and addressed. c) Noisy activities may be restricted to normal working hours i.e. Monday to Friday 7am – 5pm unless otherwise specified in the EA. d) All equipment and vehicles must be maintained to minimise noise from engines and ensure adherence to the Noise Regulations (SANS 10103). e) No unnecessary noise such as hooting, loud music, etc. is permitted.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment.	Throughout construction	Contractor and ECO

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Inspection records Environmental Inspection Report

DUST CONTROL			
Impact Management Outcome: To prevent/minimise the impact of dust on employees and surrounding community			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Water should be used sparingly, and it should be ensured that no water is wasted. b) Roads should be treated with dust abatement chemicals to reduce the use of water. The use of a product like Eco bond (inert) to bind the soil to limit dust is recommended as opposed to water. c) Dust suppression to be done to avoid visibility problems. Dampening with non-potable water, particularly during prolonged periods of dry weather and strong winds. d) Removal of vegetation must be avoided until the area must be stripped to limit exposed areas. e) Vehicle speeds must not exceed 20km/h within the development footprint.	The Contractor must ensure that a dust management programme is implemented. The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment.	Throughout construction	Contractor and ECO

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Photographic evidence Site inspection records Environmental Compliance report

STORMWATER MANAGEMENT			
Impact Management Outcome: To prevent/avoid pollution and erosion due to stormwater runoff and wastewater			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) A Stormwater Management Plan, detailing location and design of stormwater and sediment control devices will be prepared and approved prior to the commencement of construction activities. b) All stormwater devices will be constructed to the satisfaction of the administering authority. c) Permanent drainage/stormwater run-off works for large areas/sealed surfaces will be provided as early as possible during site establishment. Surface water runoff is appropriately channeled through or around spoil areas. d) Water from bunds and oily water must be removed by a licensed contractor. e) Waste water from batching, washing of equipment and tools, mobile kitchens or any other similar sources may not be disposed of onto bare soil or into a stormwater system. f) Under no circumstances must surface or ground water be polluted (oil, petrol, cleaning materials, incorrect herbicides etc.). g) No cleaning of vehicles or machinery is permitted on site. h) Mixing of cement must be done at a demarcated area on site and such area must be bunded/ adequately covered to avoid any leakage of cement or contaminated water.	The Contractor must compile a Stormwater Management Plan (SWMP). Contractor to provide disposal certificates for any contaminated water disposed of. Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment.	Prior to construction	Contractor

i) Drainage systems must be kept clean and clear of any debris at all times. j) Excessive stormwater runoff should be managed to abate siltation of water systems.			

Monitoring	
Frequency	Prior to construction
Responsible person	PM and ECO
Evidence of compliance	SWMP Site inspection records Evidence provided in the Environmental Compliance report

AIR POLLUTION			
Impact Management Outcome: To prevent or minimise air pollution due to construction activities			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) No burning of waste material (vegetation, general waste) is permitted on site. b) Adjust vehicle speed and activities to minimise dust pollution. c) Vehicles and equipment must be maintained in a good condition at all times.	The contractor must implement measures as indicated under the section “Dust Control”.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Visual inspection Evidence provided in the Environmental Compliance report

FAUNA AND FLORA AND DOMESTIC ANIMALS			
Impact Management Outcome: To protect fauna and domestic animals			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) The extent of clearing and disturbance to the natural vegetation will be kept to a minimum so that impact on fauna and their habitats is restricted. b) Interaction with domestic animals must be avoided and no harm to such animals must occur. c) No hunting, trapping, poisoning or shooting of animals may occur. d) No domestic pets may be kept on site.	The Contractor must ensure that all management actions are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Observation of vegetation clearing activities. Supervision of all clearing and earthworks. Environmental Compliance report

PROTECTION OF HERITAGE SITES			
Impact Management Outcome: To prevent/minimise negative impacts on heritage resources			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Eucalyptus Tree Avenue to be cordoned off and protected. Designated no-go area. b) If a heritage object is found, work in that area will be stopped immediately, and appropriate specialists brought in to assess to site, notify the administering authority of the item/site, and undertake due/required processes. c) Appropriate permits to be applied for should any heritage object/s be found.	The Contractor must ensure that employees are aware of the procedure to follow should heritage objects be found.	Throughout construction	Contractor Heritage specialist

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Observation of vegetation clearing activities. Photographic evidence Environmental Compliance report

DAMAGE TO PROPERTY			
Impact Management Outcome: To prevent/minimise damage to property.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) In the event that private property is damaged it must be reported immediately to the PM and the landowner. Damaged ground surfaces (due to vehicle movement or other activities) must be repaired to the satisfaction of the landowner (written proof of satisfaction must be obtained). b) If any prior damage to property or roads are observed, photographic evidence must be captured prior to working in that area, to avoid false damage to property claims against the Contractor. c) Do not interfere with stock, crops or activities on the surrounding private property. Wandering around the properties is not permissible. Staff must remain within the demarcated work area and access roads. d) Use of private property (i.e. water and ablution facilities) is not permitted. Contractor must arrange sufficient potable water and clean ablution facilities for staff at all times. The hygiene of the said ablution facilities must be kept clean for health and safety of staff.	The Contractor must ensure that staff and employees are provided with the necessary facilities for the duration of the construction phase. An incident log must be kept for any damages or complaints received from neighbouring properties or the local community.	Throughout construction	Contractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Incident register. Photographic evidence Environmental Compliance report

HANDLING AND STORAGE OF HAZARDOUS SUBSTANCES			
Impact Management Outcome: To prevent/minimise contamination of the soil and accidental leakages			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) The storage of flammable and combustible liquids such as oils will be in designated areas which are appropriately bunded and stored in compliance with the MSDS. b) Any storage and disposal permit/approvals which may be required must be obtained, and the conditions attached to such permits and approvals must be compiled with. c) A designated storage area must be provided. d) The transportation of petrol or diesel in a vehicle when contained in portable fuel containers e.g. Jerricans, may not exceed the maximum quantity of 60 liters per vehicle, or combination of vehicles unless a transport permit has been obtained as per the National Traffic Act, 1996. e) Flammable liquids or flammable substances are prohibited from entering any wastewater, foul water, borehole, sewer, drain system or surface water whether underground or on the surface. f) Fuel tanks or bowsers kept on site must be located on an impermeable bunded area. g) The necessary firefighting equipment must be stored within easy access to this area. h) No unauthorized access into the hazardous storage area will be permitted.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment. Staff must be trained in the use of spill kits.	Throughout construction	Contractor Subcontractor

i) All personnel handling hazardous substances must be appropriately trained. j) Routine servicing and maintenance of vehicles will not take place on-site (except for emergency situations or large cranes which cannot be moved off-site). If repairs of vehicles must take place, an appropriate drip tray must be used to contain any fuel or oils. k) MSDS of all hazardous substances stored on site must be kept on file. l) Drip trays must be used in areas where refueling of equipment is taking place. m) Mobile spill kits must be kept on site in the event of any spillages.			

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Training records Photographic evidence Inspection reports Environmental Compliance report

CONCRETE BATCHING			
Impact Management Outcome: To prevent/minimise contamination of the soil and groundwater.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Batching must take place on an impermeable surface such as a board or within a bunded area. b) Cement must be stored in a designated storage area. c) Washing of equipment or machinery contaminated with concrete may only take place on site unless a facility has been provided. d) Only non-potable water may be used.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all management actions mentioned are implemented. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Incident register Inspection record Photographic evidence Environmental Compliance report

FIRE HAZARDS			
Impact Management Outcome: To prevent/minimise the risk of fires.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) No fires are to be made on private property or in the veld. b) All fire hazards should be identified at the onset of construction and mitigated accordingly. c) Daily risk assessments should address fire hazards. d) Portable fire extinguishers of correct type and quantity shall be available where fire hazards exist. e) Storage and accumulation of combustible material (e.g. vegetation, wood, paper) are prohibited as it poses a fire hazard to persons and property.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all employees are aware of the management actions and to prevent any unnecessary negative impacts to the environment. The Contractor must ensure that a designated person is appointed to inspect fire equipment.	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Incident register Photographic evidence Training records Environmental Compliance report

EMERGENCY PREPAREDNESS			
Impact Management Outcome: To ensure that personnel and property is protected in the event of an emergency.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) The Contractor shall develop an Environmental Emergency Preparedness Plan (Environmental EPP) It shall include the detailed procedure to follow during: b) Hazardous chemical/ oil spills (causing water or environmental pollution/ damage) c) Environmental incidents causing reputable damage d) Cutting of protected trees and vegetation without a permit e) Emergency animal interactions e.g. snake and spider bites f) The Environmental EPP shall contain a list of local emergency contact numbers which includes contact numbers of the PM, ECO, Safety Officer, Emergency Oil Spill Contractors and Problem Animal Catchers. g) Emergency numbers shall be displayed on site and be readily accessible by all staff in case of an emergency.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all employees are aware of the emergency procedure to follow in the event of any spillages or other emergencies. The Contractor must ensure that a designated person is appointed to inspect fire equipment.	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	EPP Photographic evidence Training records Environmental Compliance report

INCIDENT MANAGEMENT			
Impact Management Outcome: To ensure that personnel and property is protected in the event of an emergency.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) All incidents must be logged and kept track of to ensure proper handling and closure of the incident. b) In the event of spillages from vehicles equipment, stores and other activities, the area must be cleaned up immediately with a bioremediation product. c) The contaminated product, soil and rags used in the clean-up must be treated as hazardous waste and disposed of as such. d) In the event of a significant spill or leak of hazardous substances (petrol, diesel, cement, etc., the incident must be reported to the relevant Authority as per Section 30 (10) of the NEMA, pertaining to the control of emergency incidents.	The Contractor must implement the approved method statement for this activity. The Contractor must ensure that all employees are aware of the emergency procedure to follow in the event of any spillages or other emergencies. The Contractor must appoint a designated person who will be responsible for conducting inspections of the hazardous storage area and all vehicles/trucks.	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	EPP Photographic evidence Training records Environmental Compliance report

SITE REHABILITATION			
Impact Management Outcome: To ensure rehabilitation of disturbed areas following the execution of the works, such that residual environmental impacts are remediated or curtailed.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Topsoil from the site must be used for rehabilitation and the use of foreign soil/material must be avoided or minimised. No builder's rubble must be used for compaction. b) Any damage caused to the area by construction activities should be rehabilitated to the owner's satisfaction. c) All equipment, materials and wastes, structures etc. must be removed from the site upon completion of construction. d) All disturbed areas must be rehabilitated to the satisfaction of the PM and the ECO. e) Suitable indigenous vegetation must be used in areas where vegetation is required. f) An indigenous garden must be established as part of the landscaping for the shopping centre. g) Areas to be re-vegetated should be done in accordance with the Landscaping plan. h) Site rehabilitation must be done soon after construction has concluded. i) Re-seeding and re-vegetation should take into account the season at the time of rehabilitation.	The Contractor must implement the approved Site Rehabilitation MS. Landscaping to be implemented as per the Landscape Plan.	Post construction	Contractor

Monitoring	
Frequency	Post construction
Responsible person	ECO
Evidence of compliance	Photographic evidence Environmental Compliance report

SOCIO-CULTURAL ISSUES			
Impact Management Outcome: To ensure that all precautions are taken to minimise the risk of injury to people and minimise complaints.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) Property owners or occupiers must be treated with respect and courtesy at all times. b) The culture and lifestyles of the communities living in close proximity to the site must be respected. c) Vehicles must be driven carefully in hazardous road conditions (sharp bends, narrow roads, bad weather, children playing on or near the road, domestic animals on or near the road etc.). Vehicle movement should be kept to a minimum during rain to avoid damage to access and public roads. d) Environmental clauses (as referred to in this EMP) must be included into contract documents for all contractors (contractors with proven track records of sound environmental performance should be used). e) Tribal graves, archaeological sites and sites of historical interest in close proximity to the site are to be treated with respect and protected. f) No firewood is to be collected except with the written consent of the landowner. g) A register must be maintained of all complaints or queries received as well as the action taken. Ensure that affected landowners and the community are informed of planned activities on their land h) Contractor to employ people from the local community whenever possible.	The Contractor must liaise with the Community Liaison to ensure that members of the local community is employed (wherever possible) for the duration of the construction phase. The Contractor to address any complaints received from the local community and surrounding landowners.	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Complaints log Inspection reports Environmental Compliance report

SECURITY			
Impact Management Outcome: To ensure that all reasonable measures are taken to safeguard the site from theft or damage to property.			
Impact management action	**Implementation**		
	Method of implementation	**Timeframe**	**Responsible person**
a) No unauthorized access to the development site will be allowed. b) Only security personnel may be accommodated at the construction site during the development phase. c) On-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk of theft and damage to property. d) Only security personnel will be permitted to stay overnight on site. e) The site must be properly secured, and fencing maintained throughout the construction phase.	A security company must be appointed to safeguard the property and manage security on site. The Contractor is responsible for supervising his personnel whilst executing their duties. All incidents of theft or other security risks must be reported and monitored.	Throughout construction	Contractor Subcontractor

Monitoring	
Frequency	Throughout construction
Responsible person	Contractor and ECO
Evidence of compliance	Incident report Inspection reports Environmental Compliance report

13.3 OPERATIONAL MANAGEMENT PLAN

The following section identifies management actions that must be implemented during the operational phase (day to day) of this development. This section is underpinned by the Duty of Care Principle and seeks to ensure that the shopping centre is properly maintained and that any potential negative impacts to the environment are minimised.

13.3.1 Management Actions:

i. Waste Management:
   - An integrated waste management plan that identifies waste minimization, waste recycling and re-use and the storage and disposal of all waste types must be implemented for the shopping centre.
   - Any organic waste must be re-used or recycled as far as possible.

ii. Vegetation Management:
   - Weeds and any alien vegetation that re-grow must be controlled.
   - Landscaping must be maintained as per the Landscape Plan.
   - The Eucalyptus Tree avenue must remain a no-go area for the duration of the lifespan of the shopping centre.

iii. Stormwater Management Plan:
   - A Maintenance Management plan must be compiled and implemented.
   - Operating procedures dealing with wash bays, fat traps, handling and management of food waste, hygiene etc. must be compiled and managed to ensure that no waste or hazardous substances enters the stormwater system.

iv. Emergency Management
   - Install public address (PA) system, sirens, and digital message boards to disseminate alerts quickly.
   - Integrate with the Koeberg Early Warning System (EWS).
   - Ensure backup power (generators or UPS) for alerting systems.
   - Clear evacuation routes must be designed, mapped, and displayed prominently throughout the centre
   - Coordinate routes with City of Cape Town Disaster Risk Management and Eskom's Koeberg Nuclear Emergency Plan.
   - Conduct regular drills and ensure that staff are trained in evacuation procedures

13.3.2 Implementation:

The EA holder will have overall accountability for ensuring that adequate facilities is available, and the conditions as set out in the EMPr and the conditions of the EA are met.

All permits or approvals required by the Local Authority must be obtained.

13.3.3 Monitoring:

Records must be kept of all inspections conducted.

Compliance against any conditions set by the Local Authority must be recorded and monitored.

14. PENALTIES/ FINES FOR NON-ADHERENCE TO THE EMP

The PM must ensure that the Contractor/s has a copy of the EMPr and the EA on site during the entire phase of construction. If the Contractor infringes on specifications made in the EMPr, the PM or Environmental Control Officer must issue spot fines. The Contractor shall be advised in writing of the nature of the infringement and the amount of the spot fine. The Contractor shall also take the necessary steps to prevent a recurrence of the infringement.

The Contractor is also advised that the imposition of spot fines does not replace legal proceedings the authorities, landowners and or members of the public may institute against the Contractor. The decision on how much to impose will be made by the PM and ECO and will be final.

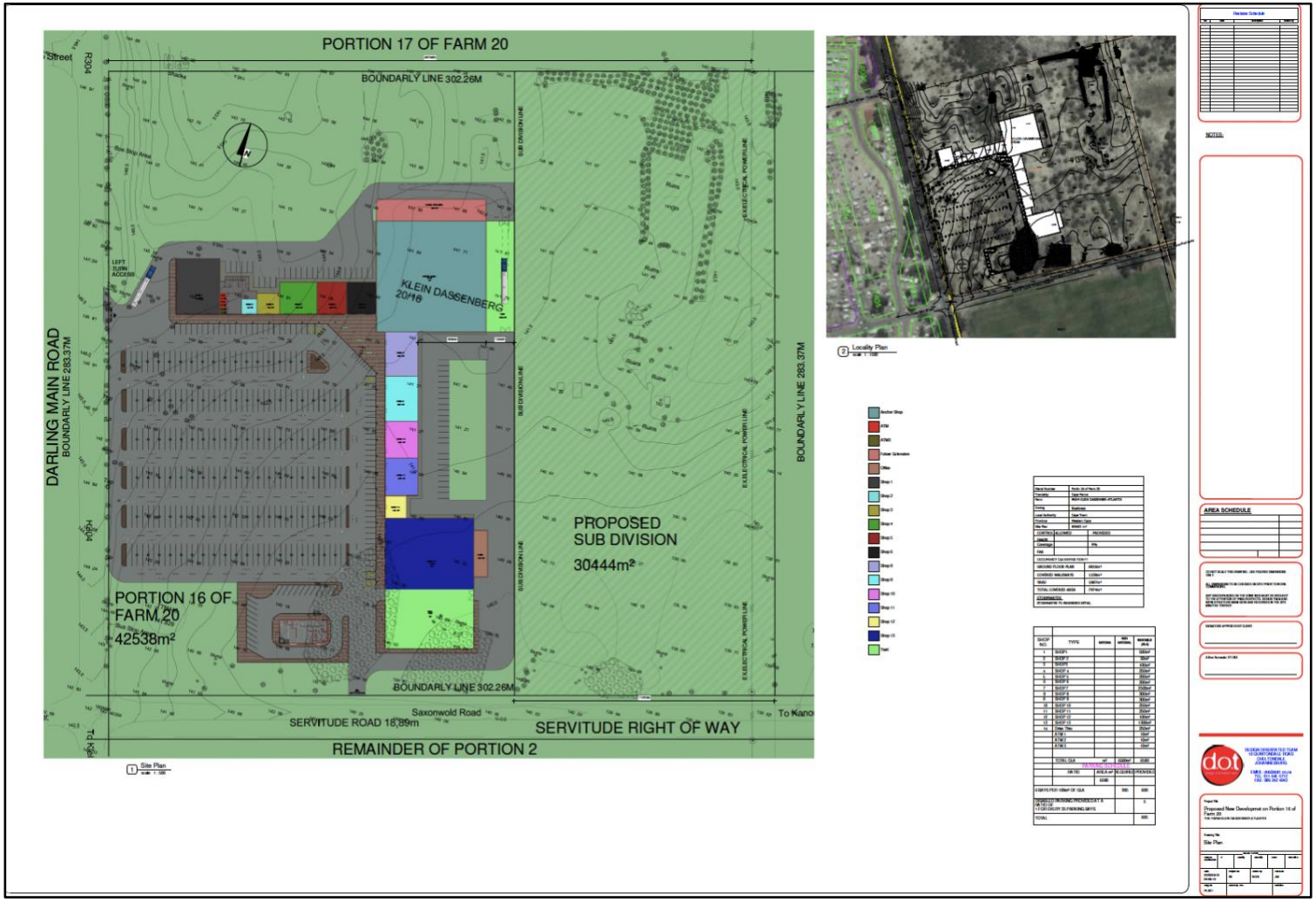
In addition, the Contractor shall make good any damage caused as a result of the infringement at his own expense. Contraventions for which spot fines will be imposed, inter alia are as follows:

- Using areas outside the working areas without permission.
- Clearing and /or levelling areas outside the working areas.
- Littering on site.
- Making fires on site.
- Using the veld for ablution.
- Picking or damaging plant material.
- Spillage of hazardous substances – oil, diesel, cement, herbicides etc.
- Damaging or killing wild or domestic animals/birds.
- Unauthorised entrance into No-Go areas•
- Unauthorised camp establishment, including stockpiling, storage, etc.
- Excessive cement or concrete spillage or contamination.

Receipts of fines shall be issued, and the appropriate documentation retained by the PM. The PM may also, with input from the ECO, order the Contractor to suspend part or all the works if the Contractor repeatedly causes damage to the environment by not adhering to the EMPr. The suspension will be enforced until such time as the offending actions, procedure or equipment is correct. No extension of time will be granted for such delays and all costs will be borne by the Contractor.

Failure to report environmental incidents will lead to investigations and possible **disciplinary. Individuals may be held liable (criminally or monetary) if personal negligence** is found, depending on the nature and scale of the damage as a result of negligence.

ANNEXURE 1: SITE DEVELOPMENT PLAN



ANNEXURE 2: BASIC RULES OF CONDUCT

The following list represents the basic Do's and Don'ts towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks. These are not exhaustive and serve as a quick reference aid.

DO:

- Use the toilet facilities provided – report dirty or full facilities
- Clear your work areas of litter and building rubbish at the end of each day – use the waste bins/bags provided and ensure that litter will not blow away.
- Report all fuel or oil spills immediately & stop the spill continuing.
- Only smoke in appropriately designated areas OFF-SITE. Dispose of cigarettes and matches carefully. (Littering is an offence.)
- Confine work and storage of equipment to within the immediate work area.
- Use all safety equipment and comply with all safety procedures.
- Ensure a working fire extinguisher is immediately at hand if any "HOT WORK" is undertaken e.g. welding, grinding, gas cutting etc.
- Prevent excessive dust and noise.
- Try to minimise impact footprint by staying within working areas and limiting footprint required for driving. One track in, one track out rule shall apply.

DO NOT:

- Make any open/unattended fires.
- Enter any fenced off or marked area without permission.
- Allow cement or cement bags to blow around.
- Allow waste, litter, oils or foreign materials into the storm water channels
- Litter or leave food laying around
- No smoking is allowed on site under any circumstances.

ANNEXURE 3: DECLARATION OF UNDERSTANDING

ACKNOWLEDGEMENT OF ACCESS AND DECLARATION OF UNDERSTANDING OF ENVIRONMENTAL DOCUMENTS AND SPECIFICATIONS

Project Name: _____

Project / Contract number: _____

I/ we {Contractor / Responsible Project Coordinator}, record as follows:
I/ we, the undersigned, do hereby declare that I/ we am/ are aware of the requirement by (EA Holder) that construction activities or any works undertaken by a Contractor working on their behalf shall be carried out with due regard to their impact on the environment.

In view of this requirement by with regard to this Contract, I/ we will, in addition to complying with the specifications of the Contract and EMPr dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting appropriate employees, plant, materials and methods of construction, in-so-far as I/ we have the choice, include in the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I/ we recognise and accept the need to abide by the "precautionary principle" which aims to ensure the protection of the environment by the adoption of the most environmentally sensitive construction approach in the face of uncertainty with regard to the environmental implications of construction.

I/we have access to the Environmental documentation and specifications as listed in the table below and in the Contract.

I/we understand our environmental responsibilities in terms of the Environmental documentation and specifications as listed in the table below and in the Contract, and endeavor to comply with all the requirements.

By signing this Declaration of Understanding I accept responsibility for protecting the environment and shall ensure compliance to the Environmental Management Programme (EMPr).

I/ we acknowledge and accept the right of to deduct, should he so wish, from any amounts due to me/ us, such amounts (hereinafter referred to as fines) warranted in view of my/ our failure to comply with the terms of the Contract dealing with protection of the environment, subject to the following:

The Project Manager, in determining the amount of such fine, shall take into account inter alia, the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he considers it necessary to impose a sanction in order to eliminate/reduce future occurrences

The Project Manager shall, with respect to any fine imposed, provide me/ us with a written statement giving details of the offence and the terms of the Contract and EMP (by reference to the specific clause) which has been contravened.

DOCUMENTS AND SPECIFICATIONS PERTAINING TO ENVIRONMENTAL MANAGEMENT		
Environmental Documents		
No	**Item**	**Version number**
1	Environment Authorisation	0/2025
2	Environmental Management Programme	0/2025

CONTRACTOR

Signed

Date

Name

Designation

ANNEXURE 4: ENVIRONMENTAL AWARENESS PLAN

It is important to ensure that all personnel have the appropriate level of environmental awareness and competence to ensure continued environmental due diligence and ongoing minimisation of environmental harm.

To achieve effective environmental management, it is important that employees, Contractors and Subcontractors are aware of the responsibilities in terms of the relevant environmental legislation and the contents of this EMP. Environmental training must include the following:

- Employees must have a basic understanding of the key environmental features of the construction site and the surrounding environment;
- Employees will be thoroughly familiar with the requirements of the EMP and the environmental specifications as they apply to the construction of the shopping centre.
- Employees must undergo training for the operation and maintenance activities associated with the shopping centre and have a basic knowledge of the potential environmental impacts that could occur and how they can be minimised and mitigated.
- Basic training in the identification of archaeological artefacts, and rare and endangered flora and fauna that may be encountered on the site.
- Awareness of any other environmental matters, which are deemed to be necessary by the ECO.
- Records must be kept of those that have completed the relevant training.
- Training must include the environment and health and safety.

Training can be done either in a written or verbal format but will be in an appropriate format for the receiving audience. Where training has been done verbally, persons having received training must indicate in writing that they have indeed attended a training session and have been notified in detail of the contents and requirements of the EMP.

1. Course Content

The following constitutes a draft outline of the course content. It will be expanded upon as specific needs arise and will be supplemented with a handout comprising relevant reading

material and extracts from the Environmental Management Programme (EMPr), which will form the foundation of the course.

Overview:

i. What is the *"Environment "?*
ii. Legislation
iii. Why the concern for the Environment?
iv. Key Environmental Issues
v. Environmental Management
vi. Additional Information & Resources

What is the "Environment"?

- ENVIRONMENT means: the surroundings within which humans exist and that are made up of:
  - The land, water and atmosphere of the earth;
  - Micro-organisms, plant and animal life;
  - Any part or combination of the above two and the interrelationship among and between them; and
  - The physical, chemical, aesthetic and cultural properties and conditions of the aforementioned that influence human health and well-being.

Legislation

Constitution (Act 108 of 1996) Section 24

- "everyone has the right to an environment that is not harmful to his or her health or well-being and to have the environment protected, for the benefit of present and future generations, through reasonable legislative measures that:

  - Prevent pollution and ecological degradation
  - Promote conservation; and
  - Secure ecological sustainable development

National Environmental Management Act (Act 107 of 1998):

Duty of Care principle: We must prevent/manage environmental impacts -

"Every person who causes, has caused or may cause significant pollution or environmental degradation, must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring."

- "The Polluter Pays" Principle is in effect
- "Whistle-blowers" are protected

Why the concern?

- Legal compliance
- Environmental authorisation
- Reduce costs
- Project delays
- Public acceptance
- Environmental impact
- Poverty and health alleviation
- Sustainable Development!

Key environmental factors

- **Wildlife interactions**
- **Oil spills**
- **Bush clearing**
- **Visual impact**
- **Herbicide usage**
- **Hazardous substances**
- **Waste**
- **Noise**
- **Erosion**

Interaction – Wildlife, vegetation & environment

- **Do not disturb / kill any animals**
- **Sensitive environment – vegetation**
- **Minimise damage / footprint**
- **Do not cause unnecessary access routes – enlarging footprint**
- **Preserve the soil structure – separation of topsoil and subsoil's**

Hazardous substances

Reporting of spillages:

- Report hydrocarbon spills;
- Prevent and reduce contamination of soil and water;
- Actions to be taken in the event of a spill:
    - Limit the spill
    - Contain the spill
    - Assessment of the spill
    - Reporting of the spill
- All oil handling sites to have a spill clean-up kit and drip trays
- Provide training on handling oil spillages

Reporting, Recording, Investigations of Incidents / Accidents

- Report incidents to Environmental Management within 24hours
- Environmental staff to assist with evaluating risk and conducting the investigation
- Water pollution incidents to be reported to authorities if required
- Implement corrective action or mitigation measures

Construction related impacts:

- Excavations
- Site establishment
    - Housekeeping
    - Sanitation
    - Vehicle parking areas (drip trays)
    - Maintenance
    - Designated smoking areas
- Barricading
- Emergency procedures
- Waste (domestic / hazardous)
- Storage (hazardous substances)

Environmental Management

- Is about controlling one's activities that have a significant impact on the environment
- Need to have systems and practices in place to do this in a proactive way
- Environmental management involves reducing risk to the environment but also to business as whole by reducing:
    - Legal risk
    - Public relations risk
    - Public risk
    - Financial risk

Environmental Requirements

- Ensure compliance to all environmental legislation (zero legal contraventions)
- Ensure compliance to environmental policies, procedures, guidelines, etc.
- Ensure staff adequately trained where their activities could impact on the environment
- Understand your responsibilities where relevant to your work

ANNEXURE 5: CVs

Peter Harmse

Environmental Impact Quality Consultant & National Advisor

Contact

+27- 073-407-3674

pharmse@enviro.co.za

PostNet Suite #0027, Private Bag x21, Edward Street, Bellville,7536

About Me

Environmental Quality Regulatory Specialist. Member of various international and Local Environmental Technical Committees.. National Expert for the South African Bureau of Standards (SABS) in terms of the International Standard Organization (ISO) requirements for Air Quality and Noise of 4 Technical Committees (TCs) and International Liaison on one TC for SABS. Member of American Society for Testing and Materials International (ASTM)

Skills

- Management Skills
- CPD Service Provider for HPCD
- Air Quality Management
- Noise Measurement
- Technical Standards Writer
- Leadership
- EIA Specialist

Education

National Diploma in Public Health

Penisula Technikon 1981- 1984

- Anatomy & Physiology,Building Practice,Health Science,Microbiology, Sanitary Science
- Epidemiology, Food Hygiene, Housing & Housing Management, Occupational Hygiene, Social Psychology
- Environmental Hygiene, Health Administration, Health Education, Meat Hygiene

Baccalaureus Technologiae (BTech) Environmental Health

Cape Penisula University of Technology 1998- 1999

Waste Management 4, Food Hygiene 4, Air Pollution 4, Community Development, Research Methodology, Management Practice

Certificates

- Certificate: Environmental Impact Assessment Administration (EIA) – University of Pretoria/Department of Environmental Affairs (DEA) [2014]
- Certificate: Public Policy Analysis (NQ Level 7): – Cape Peninsula University of Technology – May 2015.
- Certificate in Project Management (NQ Level 7): School of Public Management & Planning – University of Stellenbosch – November 2009
- Certificate: Environmental Management Inspector Compliance and Enforcement: Cape Peninsula University of Technology. June – July 2008

Experience

Head of Unit: Air Quality Regulatory Services

Western Cape - Provincial Government 2008 - 2021

Financial Management requirements and relevant fiscal policies, regulations and legislation, 3. Specialist and technical knowledge of environmental legislation / statutes/ norms and standards, · Compliance Monitoring and Enforcement statutory obligations in terms of the National Environmental Management Act (NEMA)

Senior Air Quality Practitioner

City of Cape Town 1999 - 2008

Attended and provided input at Sub-Council meetings / NGO meetings & forum discussions regarding air quality related issues. Dealing with consultants with regard to air quality management issues or projects.Handling of Air Pollution complaints regarding, dust, smoke, waste & other emissions. Legislative Compliance Auditing of factories such as Astron/Chevron/Caltex, Consul Glass, FFS Refiners.Legislative Compliance Auditing of factories such as Chevron Caltex, Consul Glass, FFS Refiners.

Meat Hygiene/Inspection

City of Cape Town 1985-1999

Corporate Services / Environmental Health Meat Inspector

Hygiene audits and applying continual improvement (HACCP) methodology, Conducting meat inspection of cattle, sheep, goats, etc.Provide practical training for students on Meat inspections for 15 years.Performing general office administration.Assisting municipalities with meat/food inspections if required.

Director **Current**

AP Harmse Enviro Engineering & Associates

This private Environmental Consulting business, is a newly established business that operates in the Environmental Health Management and Compliance Industry, including Environmental Impact Assessor & reporting audits.

References

Mr Gerhard Gerber

WCape - Provincial Government / HOD

Phone: +27 21 483 4091

Email : gerhard.gerber@westerncape.gov.za

Mr Vumile Senene

Clean Air Fund

Country Lead - South Africa

Phone: +27 (0)84 568 4460

Email : Svsenene@cleanairfund.org

Wiesaal Salaam

Environmental Consultant | *Pr.Sci.Nat* | *Candidate EAP*

info@ecos-consulting.co.za | +27 681 636 729 | Goodwood, Cape Town

Professional Summary

Wiesaal Salaam with over 20 years' experience delivering environmental compliance, impact assessments, and sustainability planning. Skilled in stakeholder engagement, regulatory analysis, and health and safety compliance. Proven success across diverse sectors including infrastructure, renewable energy, and public sector programs. Registered Professional Natural Scientist and Candidate Environmental Assessment Practitioner.

Core Competencies

- Environmental Impact Assessments (EIA), Auditing, and Compliance
- Health and Safety Management
- ISO Systems (ISO 14001, 9001, OHSAS 18001)
- Environmental Legislation & Regulatory Frameworks
- Project and Stakeholder Management
- Renewable Energy Compliance (REIPPPP)
- Incident Investigations and Risk Assessments

Professional Experience

Environmental Consultant

ECOS Consulting | Oct 2020 – Present

Environmental compliance, assessments, and safety auditing across multiple infrastructure, energy, and public sector projects. Delivered regulatory frameworks, project evaluations, and monitoring plans to support sustainable, legally compliant outcomes.

Environmental Impact Assessment – Atlantis Shopping Centre (Ongoing)

Basic Assessment Process

- Conducting a Basic Assessment process for the proposed rezoning of a property for the development of a shopping centre, Atlantis, Cape Town.

National Treasury – Bulk Fuel Storage Facilities (Jan - Dec 2022)

Environmental Assessment and Strategy Development

- Conducted compliance screening assessments and environmental risk evaluations at multiple fuel storage sites.
- Developed a regulatory framework and standardized sourcing specifications aligned with industry best practices.
- Produced a business case incorporating total cost analysis and environmental compliance strategies.

Telkom – Exchange Buildings Fire Risk Assessment (2023)

Fire and Emergency Management Audit

- Conducted fire risk inspections, compliance audits, and space optimization assessments across Telkom buildings.
- Delivered a prioritization framework and safety guidelines for infrastructure and telecommunications equipment.

Asaph Property Development – Renewable Energy Projects (2023)

Environmental Due Diligence for REIPPPP

- Performed risk-based due diligence assessments for wind, solar PV, and gas-to-power projects.
- Verified environmental authorizations and compliance readiness for REIPPPP bid submissions.

ERWAT – Waste Water Treatment Works (Nov 2020 - Mar 2021)

OHS and Environmental Gap Assessment

- Reviewed site conditions and legislative requirements across multiple WWTPs.
- Developed compliant tender specifications and customized remedial action plans for hazardous substances.

COENG – Moretele South Bulk Water Supply Scheme (Sep - Dec 2021)

Construction Health and Safety Management

- Provided dedicated site H&S support, weekly inspections, incident management, and SHE audits.

Ace Consulting Engineers – Boland College Refurbishment (2023)

Multi-Site Construction Health and Safety Oversight

- Implemented a structured audit and contractor evaluation program across three campuses.
- Ensured consistent OHS compliance and reduced incidents through corrective guidance and monitoring.

Private Property Owners – Gordon's Bay Coastal Zone Retaining Walls (2023)

Environmental Control Officer (ECO) Services

- Oversaw removal and replacement of retaining structures in line with the Coastal Management By-Law.
- Ensured environmentally responsible practices and avoided regulatory non-compliance.

Malay Community Trustees – Brodie Road Cemetery Reinstatement (Jul - Aug 2022)

Environmental Screening and Heritage Compliance

- Conducted environmental screening for reinstating the historic cemetery.
- Successfully enabled regulatory-compliant reopening of a culturally significant site.

SHEQ Manager

Eskom | Mar 2016 – Dec 2019

- Delivered advisory services for SHEQ compliance across multiple regions.
- Conducted internal audits, ISO implementation, waste assessments, and tender evaluations.
- Supported facility and operations compliance with ISO 9001, 14001, and OHSAS 18001 standards.

Previous Roles (Summary)

Senior Environmental Advisor, Eskom (2008 – 2016)
- Environmental oversight on wind farms, powerlines, and substations.
- Permit applications, EMP implementation, and World Bank reporting.

Environmental Advisor, Eskom (2006 – 2008)
- Managed EIA processes, EMPs, and audits on substation and line projects.

Consultant, Common Ground (2004 – 2005)
- Conducted EIA scoping for various municipal and private developments.
- Assisted with Public Participation Processes

Conservation Technician, CapeNature (2005 – 2006)
- Biodiversity assessments and intergovernmental reviews.

Consultant, Atlantis Municipality (2000)
- Environmental impact assessments and management advisory.

Education

- PGDip Sustainable Development, Stellenbosch University, 2015
- BSc Hons (Botany), University of the Western Cape, 2001
- BSc (Botany, Zoology), University of the Western Cape, 1999
- Matric, Rocklands High School, 1993

Certifications & Professional Development

- ISO 14001, ISO 9001, OHSAS 18001 Implementation & Auditing
- SAMTRAC (Occupational Health & Safety), 2018
- Environmental Legislation, Risk Management, and Negotiation
- Renewable Energy Policy and Wildlife Interaction Courses

Professional Registration

- Professional Natural Scientist (Reg. No. 004053)
- Candidate Environmental Assessment Practitioner (Reg. No. 2023/7434)

References

1. Shaun Swanepoel

   4RE Energies

   Email: shaun@4re.energy

2. Casian Dendere

   COENG Consulting and Construction Engineers

   Tel: 012 450 3700

   Email: Casian@coeng.co.za

3. Geoffrey Small

   Eskom

   SHEQ Manager

   Tel: +21 11 800 6573

   Email: SmallG@eskom.co.za.