STRUCTURAL REPAIRS TO THE PARADISE BEACH ELEVATED WATER TOWER

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PROGRAMME (CEMPr)

PREPARED FOR:

KOUGA
local municipality
Good Governance through Service Excellence

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ABREVIATIONS

CEMP ..... Construction Environmental Management Plan
DEA&DP…… Department of Environmental Affairs & Development Planning
EAP ..... Environmental Assessment Practitioner
ECO..... Environmental Control Officer
EIA..... Environmental Impact Assessment
ELO ..... Environmental Liaison
EO ..... Environmental Officer
ESO..... Environmental Site Officer
I&AP ..... Interested and Affected Party

DEFINITIONS

Alternative - A possible course of action, in place of another, that would meet the same purpose and need defined by the development proposal. Alternatives considered in the EIA process can include location and/or routing alternatives, layout alternatives, process and/or design alternatives, scheduling alternatives or input alternatives.

Aspect – Element of an organisation's activities, products or services that can interact with the environment.

Auditing - A systematic, documented, periodic and objective evaluation of how well the environmental management plan is being implemented and is performing with the aim of helping to safeguard the environment by facilitating management control which would include meeting regulatory requirements. Results of the audit help the organisation to improve its environmental policies and management systems.

Built environment - Physical surroundings created by human activity, e.g., buildings, houses, roads, bridges, and harbours.

Contamination - Polluting or making something impure.

Corrective (or remedial) action - Response required to address an environmental problem that conflicts with the requirements of the EMPr. The need for corrective action may be determined through monitoring, audits, or management review.

Degradation - The lowering of the quality of the environment through human activities, e.g., river degradation, soil degradation.

Environment - Our surroundings, including living and non-living elements, e.g., land, soil, plants, animals, air, water and humans. The environment also refers to our social and economic surroundings, and our effect on our surroundings.

Environmental Impact Assessment (EIA) - An Environmental Impact Assessment (EIA) refers to the process of identifying, predicting, and assessing the potential positive and negative social, economic and biophysical impacts of a proposed development. The EIA includes an evaluation of alternatives; recommendations for appropriate management actions for minimising or avoiding negative impacts and for enhancing positive impacts; as well as proposed monitoring measures.

Environmental Management System (EMS) - Environmental Management Systems (EMS) provide guidance on how to manage the environmental impacts of activities, products and services. They detail the organisational structure, responsibilities, practices, procedures, processes and resources for environmental management. The ISO14001 EMS standard has been developed by the International Standards Organisation.

Environmental policy - Statement of intent and principles in relation to overall environmental performance, providing a framework for the setting of objectives and targets.

Habitat - The physical environment that is home to plants and animals in an area, and where they live, feed and reproduce.

Hazardous waste – Waste, even in small amounts, that can cause damage to plants, animals, their habitat and the well-being of human beings, e.g. waste from factories, detergents, pesticides, hydrocarbons, etc.

Impact - A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space.

Infrastructure - The network of facilities and services that are needed for economic activities, e.g., roads, electricity, water, sewerage.

Integrated - Mixing or combining all useful information and factors into a joint or unified whole. See Integrated Environmental Management.

Integrated Environmental Management (IEM) - A way of managing the environment by including environmental factors in all stages of development. This includes thinking about physical, social, cultural and economic factors and consulting with all the people affected by the proposed developments. Also called "IEM".

Land use - The use of land for human activities, e.g., residential, commercial, industrial use.

Mitigation - Measures designed to avoid, reduce or remedy adverse impacts.

Over-utilisation - Over-using resources - this affects their future use and the environment.

Policy - A set of aims, guidelines and procedures to help you make decisions and manage an organisation or structure. Policies are based on people's values and goals. See Integrated Metropolitan Environmental Policy.

Process - Development usually happens through a process - several planned steps or stages.

Proponent – Developer. Entity which applies for environmental approval and is ultimately accountable for compliance to conditions stipulated in the of the EMPr.

Recycling - Collecting, cleaning, and re-using materials.

Resources - Parts of our natural environment that we use and protect, e.g., land, forests, water, wildlife, and minerals.

Stakeholders - A subgroup of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its

consequences. The term includes the proponent, authorities and all interested and affected parties.

Storm water management – Strategies implemented to control the surface flow of storm water such that erosion, sedimentation and pollution of surface and ground water resources in the immediate and surrounding environments are mitigated. This is specifically important during the construction and decommissioning phases of a project.

Waste Management – Classifying, recycling, treatment and disposal of waste generated during construction and decommissioning activities.

REFERENCES

DEAT (1992) Integrated Environmental Management Guideline Series, Volumes 1-6, Department of Environmental Affairs, Pretoria.

DEAT (2004a) Environmental Management Plans, Integrated Environmental Management, Information Series 12, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

Lochner, P. 2005.Guideline for Environmental Management Plans. CSIR Report No ENV-S-C 2005-053 H. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town.

Republic of South Africa. 1998. National Environmental Management Act 107 of 1998 (NEMA).

SECTION 1: INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

Kouga Local Municipality (KLM) identified the need to undertake structural repairs to the Paradise Beach Elevated Water tower.

Kouga Local Municipality has appointed Lukhozi Consulting Engineers (Pty) Ltd (Lukhozi) as their Structural Engineer for the investigation, design and implementation of structural repairs to the Paradise Beach Elevated Water Tower (PBEWT). This Construction Environmental Management Programme (CEMPr) has been compiled to assist the KLM and appointed contractor with ensuring environmental best-practice on-site, as well as to assist with monitoring compliance with this CEMPr.

The following Scope of Work will be covered by this CEMPr:

1. Concrete repairs with cementitious products on all external concrete surfaces of the PBEWT with spalling, cracks and/or exposed reinforcement.
2. Replacing pipework straps with new hot dipped galvanized straps to match existing.
3. Replacing pipework bolts with new hot dipped galvanised bolts.
4. Painting all pipework.
5. Wrap all couplings, adapters, straps and bolts with denso tape or similar approved product.
6. Replacing all handrails with new GRP (fibreglass) handrails
7. Providing and allowing access to telecommunication personnel for the temporary removal or relocation of existing telecommunication services.
8. Supply and erection of new security fence.
9. Supply and commissioning of a generator as per the specifications.

1.2. PROJECT DESCRIPTION AND LOCALITY

Paradise beach is situated approximately 83 km from Gqeberha, and 6 km south of Jeffreys Bay. The Paradise Beach Elevated Water Tower is located at No 52 Harmonie Crescent, Paradise Beach, Jeffreys Bay as indicated in figure 1 below.

The coordinates to the centre of the Elevated Water Tower are:
Latitude 34°05'47.45"S
Longitude 24°53'43.25"E.

A locality plan for the project is shown in **Figure 1** below.

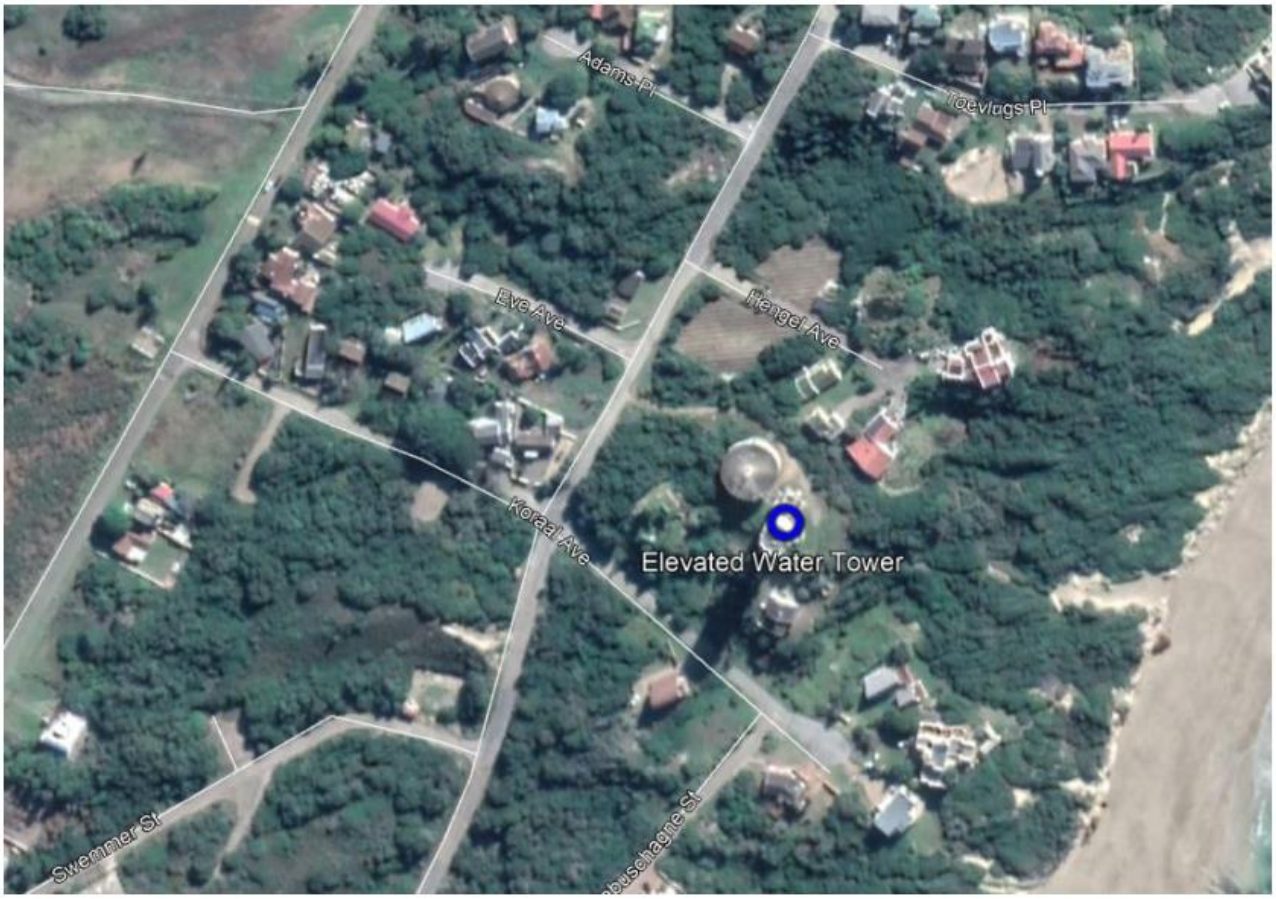

Figure 1: Locality of Paradise Beach Tower.

This document is compiled in accordance with the Integrated Environmental Management (IEM) philosophy which aims to achieve a desirable balance between conservation and development (DEAT, 1992). IEM is a key instrument of the National Environmental Management Act [NEMA] (Act No. 107 of 1998). NEMA promotes the integrated environmental management of activities that may have a significant effect on the environment, while IEM prescribes a methodology for ensuring that environmental management principles are fully integrated into all stages of the development process. It advocates the use of several environmental management tools that are appropriate for the various levels of decision-making. One such tool is a CEMPr.

The IEM guidelines encourage a pro-active approach to sourcing, collating and presenting information in a manner that can be interpreted at all levels. The basic principles underpinning IEM are that there be:

- informed decision-making.
- accountability for information on which decisions are taken.
- accountability for decisions taken.
- a broad meaning given to the term environment (i.e. one that includes physical, biological, social, economic, cultural, historical and political components);
- an open, participatory approach in the planning of proposals.
- consultation with interested and affected parties.
- due consideration of alternative options.
- an attempt to mitigate negative impacts and enhance positive aspects of proposals.

- an attempt to ensure that the 'social costs' of development proposals (those borne by society, rather than the developers) be outweighed by the 'social benefits' (benefits to society because of the actions of the developers).
- democratic regard for individual rights and obligations.
- compliance with these principles during all stages of the planning, implementation and decommissioning of the proposals (i.e., from 'cradle to grave'); and
- the opportunity for public and specialist input in the decision-making process.

These principles are in line with NEMA, which has repealed several the provisions of the Environment Conservation Act, 1989 [ECA] (Act No. 73 of 1989), and is focussed primarily on co-operative governance, public participation, and sustainable development. The Environmental Impact Assessment Regulations that are applicable, namely EIA Regulations, 2014 (as amended) regulate the procedures and criteria for the submission, processing, consideration, and decision on applications for environmental authorisation of listed activities.

Compiler of the CEMPr

Natalie Ritsch has been an Environmental Assessment Practitioner (EAP) for 22 years and has been involved in the environmental science field for 23 years. She has been involved in the government, parastatal and private sectors in her career thus far, which involved the supervision of junior staff, reviewing of documentation and compilation of various reports from small-scale BA's to large-scale EIA's, including a number of Environmental Management Programmes (EMPr). Natalie is currently an Environmental Manager at Lukhozi, where she provides environmental support to technical staff, project leadership and quality assurance on all projects. Natalie is currently registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (Reg. No. 400130/05), and is a member of the International Association for Impact Assessment – South African affiliate (IAIAsa).

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1.2 SCOPE

The general principles contained within this document apply to all **PRE-CONSTRUCTION AND CONSTRUCTION** activities.

1.2.1 Principles of this CEMPr

This CEMPR is compiled using the following concepts and implementation requirements so that the higher principles of sustainable development are realised:

- Continuous improvement. The project proponent (or implementing organisation) must commit to review and to continually improve environmental management, with the objective of improving overall environmental performance.
- Broad level of commitment. A broad level of commitment is required from all levels of management as well as the workforce in order for the development and implementation of this CEMPR to be successful and effective.

- Flexible and responsive. The implementation of the CEMPr must respond to new and changing circumstances, i.e., rapid short-term responses to problems or incidents. The CEMPr is a dynamic "living" document and thus regular planned review and revision of the CEMPr must be carried out.
- Integration across operations. This CEMPr must integrate across existing line functions and operational units such as health, safety, and environmental departments in a company/project. This is done to change the redundant mindset of seeing environmental management as a single domain unit.
- Legislation. It is understood that any development project during its construction phase is a dynamic activity within a dynamic environment. The Developer, Engineer, Contractor and Sub-contractor must therefore be aware that certain activities conducted during construction may require further licensing or environmental approval, e.g. river or stream diversions, bulk fuel storage, waste disposal, etc. The Contractor must consult the ER, EO and ECO on a regular basis in this regard.

1.2.2 Site specific information

Proposed activity and local context

The Paradise Beach Elevated Tower is located at 52 Harmonie Crescent, Paradise beach, Jefferys Bay. Paradise Beach is located approximately 83km from Gqeberha, and 6km south of Jefferys Bay.

1.2.3 Interpretations

The implementation of the CEMPr is not an additional or "add on" requirement. The CEMPr is legally binding through NEMA. The proponent is to ensure that through the project tender process the CEMPr forms part of the Project Construction Contract Document to be incorporated in line with:

a) General project specifications; and
b) SANS 1200 A or SANS 1200 AA, as applicable.

1.2.4 Project phase

This CEMPr is specifically compiled for the period of time prior to commencement of, and activities associated with construction of the above-mentioned activity.

1.2.5 Role players and responsibility matrix

For the CEMPr to be successfully implemented, all the role players involved in the project need to co-operate. For this to happen, role players must clearly understand their roles and responsibilities in the project, must be professional, form respectful and transparent relationships, and maintain open lines of communication.

These role players or the project team include the Authorities (A), Developer/Proponent (D), Consulting Engineers (CE), Engineers Representative (ER), Environmental Officers (EO), Environmental Site Officer (ESO), Environmental Control Officer (ECO), Project Manager (PM), Contractors (C), Environmental Assessment Practitioner (EAP). Further, landowners, interested and affected parties and the relevant environmental and project specialists are also important role players.

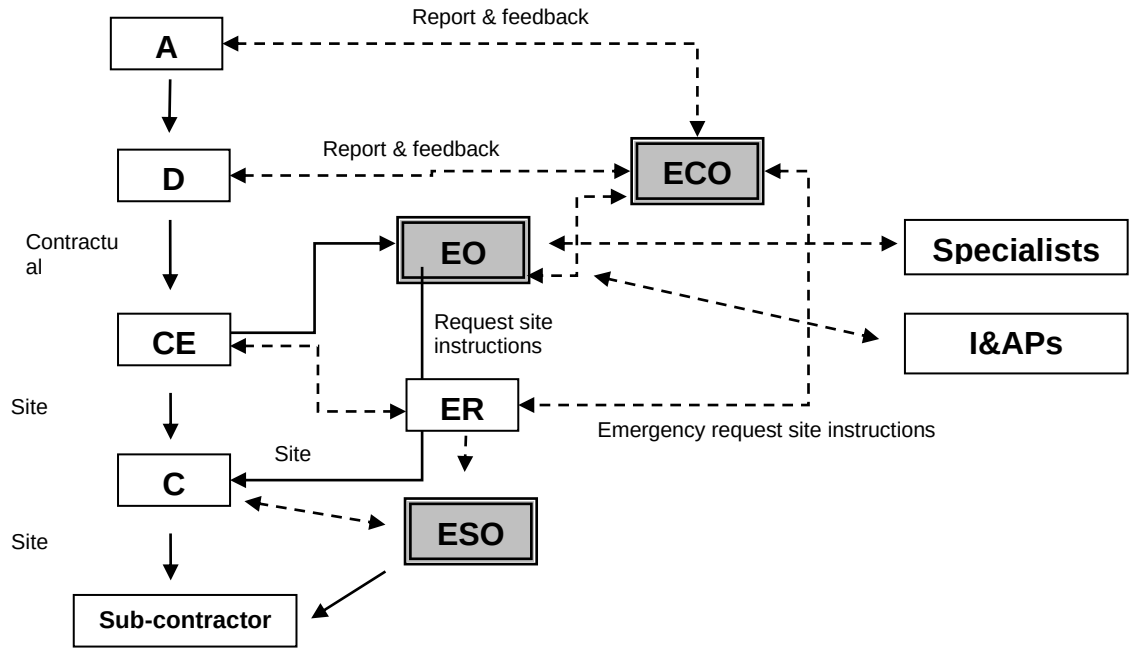
Table 1: Functions and Responsibilities of the Project Team

KEY	FUNCTION	RESPONSIBILITY
D	**Developer**	Proponent ultimately accountable for ensuring compliance to the CEMPr. The ECO must be contracted by the developer (full time or part time depending on the size of the project) as an independent appointment to objectively monitor implementation the CEMPr for the project. The developer is further responsible for providing and giving mandate to enable the ECO to perform responsibilities. The developer must ensure that the ECO is integrated as part of the project team.
CE	**Consulting Engineer**	Contracted by the developer to design and specify the project engineering aspects. Generally, the engineer runs the works contract. The CE may also fulfil the role of Project Manager on the proponent's behalf (See PM).
PM	**Project Manger**	The Project Manager has over-all responsibility for managing the project, contractors, and consultants and for ensuring that the environmental management requirements are met. The CE may also act as the PM. All decisions regarding environmental procedures must be approved by the PM. The PM has the authority to stop any construction activity in contravention of the EMPr in accordance with an agreed warning procedure.
ER	**Engineers Representative**	The consulting engineer's representative on site. Has the power/mandate to issue site instructions and in some instances, variation orders to the contractor, following request by the EO or ECO. The ER oversees site works, liaison with Contractor and ECO.
EO/EM	**Environmental Officer /Environmental manager**	Appointed by the Consulting Engineers as their environmental representative on site. The EO is not independent but must rather act on behalf of the consulting engineers with the mandate to enforce compliance under the project contract, which must include the CEMPr. The EO has the directive to issue non-conformance and hazard certificates. Further, in terms of accepted industry practice the EO could issue the equivalent of a "cease works" instruction only in exceptional circumstances where serious environmental harm has been or is about to be caused i.e. in cases of extreme urgency and then only when the ER is absent. The EO must form part of the project team and be involved in all aspects of project planning that can influence environmental conditions on the site. On certain types of projects, such as linear developments (fences, pipelines, etc), the EO must also be the liaison between the contractor and landowners. The EO must attend relevant project meetings, conduct daily inspections to monitor compliance with the CEMPr, and be responsible for providing reports and feedback on potential environmental problems associated with the development to the project team and ECO. The EO must convey the contents of this CEMPr to the Contractor site team and discuss the contents in detail with the Contractor as well as undertake to conduct an induction and an environmental awareness training session prior to site handover to all contractors and their workforce. The EO must be suitably experienced with the relevant qualifications and preferably competent in construction related methods and practices.

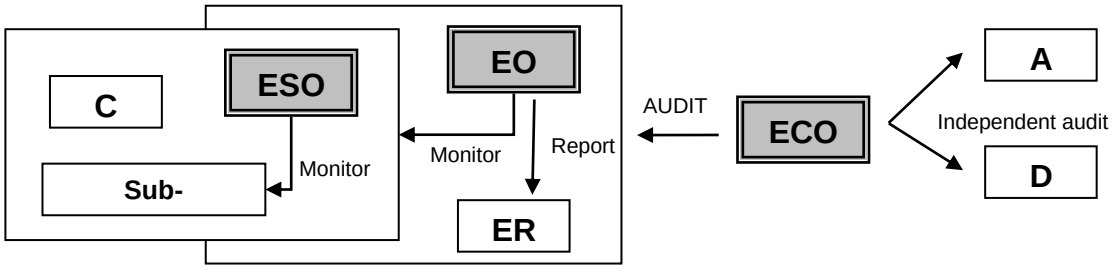
KEY	FUNCTION	RESPONSIBILITY
ECO	**Environmental Control Officer**	An independent appointment to objectively monitor implementation of relevant environmental legislation, conditions of the CEMPr for the project. The ECO must be on site prior to any site establishment and must endeavour to form an integral part of the project team. The ECO must conduct audits on compliance to relevant environmental legislation, conditions of EA, and the CEMPr for the project. The size and sensitivity of the development, based on the EIA, will determine the frequency at which the ECO will be required to conduct audits. (A minimum of a monthly site inspection must be undertaken). The ECO must be the liaison between the relevant authorities and the project team. The ECO must communicate and inform the developer and consulting engineers of any changes to environmental conditions as required by relevant authoritative bodies. The ECO must ensure that the registration and updating of all relevant CEMPr documentation is carried out. The ECO must be suitably experienced with the relevant environmental management qualifications and preferably competent in construction related methods and practices. The ECO must handle information received from whistle blowers as confidential and must address and report these incidences to the relevant Authority as soon as possible. On small projects, where no EO is appointed, the ECO must convey the contents of this CEMPr to the Contractor site team and discuss the contents in detail with the Contractor as well as undertake to conduct an induction and an environmental awareness training session prior to site handover to all contractors and their workforce.
C	**Contractor**	The principal contractor, hereafter known as the 'Contractor', is responsible for implementation and compliance with the requirements of the CEMPr, contract and relevant environmental legislation. The Contractor must ensure that all sub-contractors have a copy of and are fully aware of the content and requirements of this CEMPr. The contractor is required, where specified, to provide Method Statements setting out in detail how the management actions contained in the CEMPr will be implemented.
ESO	**Environmental Site Officer**	The ESO is employed by the Contractor as his/her environmental representative to monitor, review and verify compliance with the CEMPr by the contractor. This is not an independent appointment; rather the ESO must be a respected member of the contractor's management team. Dependent on the size of the development the ESO must be on site one week prior to the commencement of construction. The ESO must ensure that he/she is involved at **all phases** of the constriction (from site clearance to rehabilitation).
A	**Lead Authority**	The authorities are the relevant environmental department that has issued the Environmental Authorisation. The authorities are responsible for ensuring that the monitoring of the CEMPr and other authorisation documentation is carried out, this will be achieved by reviewing audit reports submitted by the ECO and conducting regular site visits.
OA	**Other Authority**	Other authorities are those that may be involved in the approval process of a CEMPr. Their involvement may include reviewing CEMPr's to ensure the accuracy of the information relevant to their specific mandate. Other authorities may be involved in the development, review or implementation of an CEMPr. For example if a specific development requires a water use licence for the relevant national authority then that authority should review and comment on the content of the particular section pertaining to that mandate.
EAP	**Environmental Assessment Practitioner**	The definition of an environmental assessment practitioner in Section 1 of NEMA is "*the individual responsible for the planning, management and coordination of environmental impact assessments, strategic environmental assessments, environmental management plans or any other appropriate environmental instruments introduced through regulations".*

Figure 2 Recommended lines of communication, reporting and monitoring.

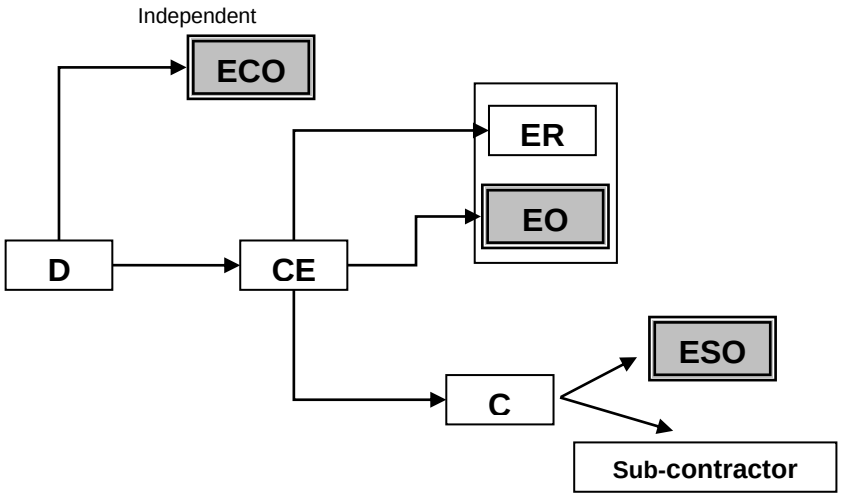
FORMAL ENVIRONMENTAL COMMUNICATION CHANNELS



MONITORING, AUDITING AND REPORTING



ENVIRONMENTAL APPOINTMENTS



1.2.6 Enforcement, monitoring and auditing.

The ECO must conduct monthly independent environmental audits, or as required by the Environmental Authorisation (EA). The audits are to verify the projects compliance with the CEMPr.

Before any construction activities commences, the ECO must compile, an audit checklist based on the contents of this CEMPr.

Evidence of the following as **key performance indicators,** must be included in the audit reports where required:

1. Complaints received from landowners and actions taken.
2. Environmental incidents, such as oil spills, concrete spills, etc. and actions taken (litigation excluded).
3. Incidents leading to litigation and legal contraventions.
4. Environmental damage that needs rehabilitation measures to be taken.

A copy of all ESO and EO monitoring reports, contractor method statements and pro forma documentation (see 1.2.11 & 1.2.12) must be held by the ESO and/or the EO on site and be made available to relevant Authorities and or the ECO upon request.

1.2.7 Non-Compliance

Fines

The contractor must comply with the requirements of the Environmental Management Programme (EMPr) on an on-going basis and any failure on his part to do so will entitle the Principal Agent (in consultation with the ECO) to impose a fine subject to the details set out below:

a) The Engineer/Principal Agent shall issue a Notice of Non-compliance to the contractor for repeat NCs (as identified by the ECO in monthly audit reports) and issue a formal instruction to the contractor to resolve the repeat NCs within a period of 14 days of the date of the instruction. The formal instruction should also detail possible consequences of continued non-compliance (i.e., the issuance of fines).

b) The contractor shall act to correct the transgressions within the period specified in the instruction and provide the Engineer/Principal Agent and ECO with a written statement describing the actions taken to resolve the non-compliance.

c) In the event the contactor fails to remedy the NCs within the prescribed/required timeframe and there is evidence of non-compliance identified by the ECO during a subsequent audit, the ECO will formally recommend the issuing of a fine by the Engineer/Principal Agent for transgressions outlined/identified by the ECO.

d) The Engineer/Principal Agent will issue a fine to the contractor for the transgressions outlined/identified by the ECO.

e) Should the contractor fail to resolve the repeat NC(s) (after the issuance of fines by the Engineer/Principal Agent) as identified by the ECO during a subsequent audit, the ECO will formally recommend the issuing of a fine by the Engineer/Principal Agent of which double the value of the first fine that was originally issued.

f) Should the contractor fail to resolve the repeat NC(s) (after the issuance of fines by the Engineer/Principal Agent) as identified by the ECO during a subsequent audit, a 'Stop Works' order may be issued by the Engineer/Principal Agent until the NCs are resolved. Any costs incurred because of the 'Stop Works' order will be for the account of the Contractor. In addition to the 'Stop Works' order, the Engineer/Principal Agent may also mobilise the required resources to resolve the NC(s) and to remedy any environmental impact and harm at the expense of the contractor.

Refer to **Annexure 6** for a summary of the typical incidents and resultant penalties.

1.2.8 General guidelines

The following measures provide guideline solutions to frequently anticipated issues on most development activities.

g) The prevention of any site degradation due to non-compliance, administrative or financial problems, and inactivity during the construction phase, illegal activities, delays caused by archaeological finds, etc. is ultimately the responsibility of the applicant/developer. Section 28, National Environmental Management Act [NEMA] (Act No. 107 of 1998).

h) The study area must be clearly defined, surveyed, and fenced according to the project authorisation. All workforce members and other construction personnel are not to go beyond the fenced footprint. Landowners are not comfortable when strangers come on to their properties. They will look for reasons to interfere with the construction process and may therefore cause delays in the process that can be very costly to the Contractor.

i) The Contractors must adhere to agreed and approved access points and haul roads.

j) No camping is allowed on any private property.

k) Damage to private or public property such as fences, gates and other infrastructure may occur at any time. All damage to be repaired immediately and to the satisfaction of the owner.

l) Relevant landowners and businesses within the area must be informed of the starting date of construction, as well as the phases in which the construction shall take place.

m) The Contractor must adhere to all conditions of contract including this CEMPr.

n) Proper planning of the construction process must be undertaken to allow for disruptions due to rain and very wet conditions.

o) Where existing private roads to be utilised as access are in a bad state of repair, such roads' condition must be well documented, including photographs, before they are used for construction purposes. If necessary, some repairs must be done to prevent damage to equipment and plant.

p) All private and public manmade structures near the project site must be always protected against damage and any damage must be rectified immediately.

q) Proper site management and regular monitoring of site works.

r) Proper documentation and record keeping of all complaints and actions taken.

s) Regular site inspections and good control over the construction process throughout the construction period.

t) A positive attitude towards Environmental Management by all site personnel must be motivated through regular and effective awareness and training sessions (see 1.2.10 below).

u) An ESO, on behalf of the Contractor, is to be appointed to implement this EMP. The EO and not the Contractor or his/her ESO is to deal with any landowner related matters (see figure 2).

v) Environmental Audits to be carried out during and upon completion of construction.

1.2.9 Awareness training

The EO or ESO, or ECO, are responsible for ensuring everyone on site is given an environmental awareness induction session which not only clearly defines what the environment is and gives specifics detailing the local environment but outlines the requirements of the CEMPr as a management tool to protect the environment. Refresher courses must be conducted as and when required. The EO or ESO must ensure daily toolbox talks include alerting the workforce to environmental concerns associated with the tasks for that day or the area in which they are working. Awareness posters and a handout may be produced to create awareness throughout the site.

1.2.10 Contractor environmental Method Statements

Method Statements are written submissions to the Engineer by the Contractor in collaboration with his/her ESO, in response to a request by the EO and or Engineer. The Method Statements set out the plant, materials, labour and method that the contractor proposes using to carry out an activity, identified by the EO and/or Engineer. The Method Statements contain the appropriate detail such that the EO and Engineer can assess whether the Contractor's proposal is in accordance with the requirements of the CEMPr. The contractor must sign each Method Statement along with the EO and Engineer to formalise the approved Method Statement.

All Method Statements including those which may be required as *ad hoc,* or emergency construction method statements must be submitted to the Engineer for approval prior to the commencement of the activity.

Any changes to the method of works must be reflected by amendments to the original approved Method Statement. Any changes in this regard must be approved by the EO and Engineer on the understanding that such changes are environmentally acceptable and in line with the requirements of this CEMPr.

The *pro forma* Method Statements attached must be used and method statements for the following activities must be submitted to the EO, ECO and Engineer for approval before construction commences. These include *inter alia:*

- Solid waste management.
- Crew camps and construction lay down areas.
- Workshop and maintenance/cleaning of plant.
- Cement and concrete batching.
- Dust control.
- Hydrocarbon and emergency spills procedures.
- Diesel tanks and refuelling procedures.

- Fire; and
- Rehabilitation of crew camp and other disturbed areas.

1.2.11 Site documentation

The following is list of documentation that must be held on site and must be made available to the ECO and/or Approving Authority on request.

- Access negotiations and physical access plan.
- Site daily diary /instruction book/ Incident reports.
- Records of all remediation / rehabilitation activities.
- Copies of EO reports (management and monitoring).
- Construction Environmental Management Programme (CEMPr).
- Complaints register; and
- Method statements.

1.2.12 Pro forma documentation

a) Prior to the commencement of construction activities

The following attached *pro forma* documentation is to be filled out and is binding to the CEMPr and project contract and includes *inter alia*:

- Declaration of understanding by the Developer.
- Declaration of understanding by the Engineer.
- Declaration of understanding by the Contractor.
- Method statements.
- ECO / Engineer approval for method statements; and
- Access negotiations and physical access plan.

b) During construction activities

The following attached pro forma documentation is to be filled out and maintained. These are binding on the CEMPr and project contract. They include *inter alia*:

- Amended Method Statements.
- ECO / Engineer approval for amended method statements.
- Environmental incidents; and
- Records of all remediation / rehabilitation activities.

SECTION 2: GENERIC CONSTRUCTION PHASE CEMPR- IMPLEMENTATION

2.1 PREAMBLE

The point of departure for this CEMPr is to ensure a pro-active rather than re-active approach to environmental performance by addressing potential problems before they occur. This will limit corrective measures needed during the construction phase of the project. Therefore, the purpose of a CEMPr is to provide management measures that must be implemented by Developers, Engineers and Contractors alike to ensure that the potential impacts of a proposed development are minimised. It must also be ensured that the CEMPr is maintained and upheld as a dynamic document for the project team to add or improve on issues that might be considered left out or not relevant to the project. In such instances, the approving authority may authorise the ECO to make such changes.

The following tables form the core mitigation measures appropriate to the pre-construction and construction phase. The tables present the objectives to be achieved and the management actions that need to be implemented to mitigate the negative impacts and enhance the benefits of the project. Associated responsibilities, criteria/targets and timeframes are clearly specified.

The ***'pre-construction'*** section of this CEMPr, refers to the period leading up to and prior to commencement of construction activities, and is included to ensure pro-active environmental management measures with the goal of identifying avoidable environmental damage at the outset and sustain optimal environmental performance throughout the construction phase. Most impacts will occur during the construction phase and must be mitigated through the contingency plans identified in the pre-construction phase.

The bulk of environmental impacts will have immediate effect during the ***'construction'*** phase (e.g., noise, dust, and water pollution). If the site is monitored on a continual basis during the construction phase, it is possible to identify these impacts as they occur. These impacts will then be mitigated through the measures outlined in this section, together with a commitment to sound environmental management from the project team.

The "***construction***" section refers to all construction-related activities that will occur within the approved area and access roads, until the project is completed. This "construction" section is divided into three functional areas, namely "materials"; "plant"; and "construction". Each of these functional areas within the CEMPr contains specific mitigation requirements and requested contractor method statements stipulated where required.

2.2 STRUCTURE AND CONTENTS OF TABLES

The table consists of seven parts as follows:

"Phase of development" - This row will identify either pre-construction (planning) or actual construction phase.

"Impact / issue" - This row will identify the issue being addressed, e.g., Materials, site demarcation, heritage, etc.

Mitigation Measure - This column will include all the necessary mitigation measures for each impact/issue'.

Management objectives - This column will indicate what the management objectives to be achieved for each mitigation measure are.

Measurable targets - This column will indicate what evidence is to be used as an indication to whether the 'Management objectives' have been implemented and hence achieved.

Frequency of action - These columns provide time guidelines for the 'Responsible party' by which he/she is to action or manage the required mitigation.

Phase of development	PRE-CONSTRUCTION
Impact / issue	GENERAL PLANNING (A)

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
A1 Project contract and programme i. The CEMPr must be included as part of the tender documentation thereby making it part of the enquiry document to make the recommendations and constraints, as set out in this document, enforceable under the general conditions of contract. ii. A copy of this CEMPr must be available on site. The Contractor must ensure that all the personnel on site, sub-contractors and their team, suppliers, etc. are familiar with and understand the specifications contained in the CEMPr.	• Contingencies for minimising negative impacts anticipated to occur during the construction phase. • Ensure environmental awareness and formalise environmental responsibilities and implementation.	• Contract records • Signed declaration pro forma's	-	
A2 Appointments and duties of project team i. The contact details for the ECO, ER, Contractor and ESO must be visible at the contractor's site office. ii. Before construction activities commence, role players must have a clear indication of their role in the implementation of this CEMPr. iii. Subcontractor(s) contracts with the principal contractor must ensure that the subcontractors are bound and will comply with the specific provisions of the CEMPr, as it pertains to the project.	• Contingencies for minimising negative impacts anticipated to occur during the construction phase	• Contract records • Proof of awareness training / Acknowledgement form	-	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
A3 Method statements i. Method statements must be provided by the contractor. All activities which require method statements may only commence once the method statements have been approved by the engineer and or ECO as applicable. ii. Where applicable, the contractor will provide job-specific training on an ad hoc basis when workers are engaged in activities, which require method statements.	• Contingencies for minimising negative impacts anticipated to occur during the construction phase	• Approved method statements and relevant pro forma documents • Training records	As and when required	
A4 Site demarcation and development i. The surveys for the overall project area and construction footprint must be completely and clearly demarcated before the contractors set up their crew camps or begin construction.	• Contingencies for minimising negative impacts anticipated to occur during the construction phase	• Demarcated area's • Filled in section of this document	As and when required	
A5 Emergencies, non-compliance, and communication i. The contractor must provide method statements on the protocols to be followed, and contingencies to be put in place for the potential incidents before construction may begin. ii. The contractor understands that where non-compliance is identified in terms of the CEMPr, fines will be instituted according to the agreed approach. iii. An evacuation plan for personal, describing the signals to be used for evacuation, evacuation routes, as well as alternative evacuation routes in the case where the primary route could be blocked.	• Contingencies for minimising negative impacts anticipated to occur during the construction phase	• Method statements	As and when required	

Phase of development	CONSTRUCTION
Impact / issue	Materials (C)

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
Handling				
C1 Stockpiles and Soil i. All temporarily stockpiled material must be stockpiled in such a way that the spread of materials is minimised. ii. The stockpiles may only be placed within the demarcated areas the location of which must be approved by the ER, EO or ECO. iii. Storm water run-off from the stockpile sites and other related areas must be directed into the storm water system with the necessary pollution prevention measures such as silt traps and may not run freely into the immediate and surrounding environments. iv. All topsoil must be removed and stockpiled on the site. v. Single handling is recommended. Stockpiles must not be higher than 2m to avoid compaction. vi. Dust suppression is necessary for stockpiles older than a month – with either water or a biodegradable chemical binding agent. vii. Backfilling must be undertaken in such a way that the final contours blend with the surrounding environment. viii. Disturbed surfaces to be rehabilitated must be ripped and the area must be backfilled with excavated material from the site.	• Minimise construction footprint. • Minimise contamination of storm water run-off.	• No visible erosion scars once construction is completed. • The footprint has not exceeded the agreed site. • No signs of sedimentation and erosion.	Daily.	
C2 Oil and chemicals i. The contractor must provide method statements for the "**handling & storage of oils and chemicals**", "**fire**", and "**emergency spills procedures**". ii. These substances must be confined to specific and secured areas within the contractor's camp, and in a way that does not	• Prevention of pollution of the environment. • Minimise chances of transgression of the acts controlling pollution.	• No pollution of the environment • No litigation due to transgression of pollution control acts • No complaints from	Daily	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
pose a danger of pollution even during times of high rainfall. These areas must be imperviously bunded with adequate containment (at least 1.5 times the volume of the fuel) for potential spills or leaks. iii. Drip trays (minimum of 10cm deep) must be placed under all vehicles that stand for more than 24 hours. Vehicles suspected of leaking must not be left unattended, drip trays must be utilised. iv. The surface area of the drip trays will be dependent on the vehicle and must be large enough to catch any hydrocarbons that may leak from the vehicle while standing. v. Spill kits must be available on site.Spill kits must be made up of material/product that is in line with environmental best practice (SUNSORB is a recommended product that is environmentally friendly). vi. Remediation of oil spills / spilled hazardous substances must be undertaken as soon as possible, and proof of safe disposal must be provided. vii. A record must be kept of all spills and the corrective action taken.		I&APs • Method statements • Proof of safe disposal		
C3 Cement i. The contractors must provide and maintain a method statement for "cement and concrete batching". The method statement must provide information on proposed storage, washing & disposal of cement, packaging, tools, and plant. ii. The mixing of concrete must only be done on mortar boards or similar structures. iii. Cleaning of cement mixing and handling equipment must be done using proper cleaning trays. iv. All empty containers must be stored in a dedicated area and later removed from the site for appropriate disposal at a licensed facility. v. Any spillage that may occur must be investigated and immediate remedial action must be taken. vi. Cement batching areas must be in consultation with the ER, EO or ECO.	• Minimise the possibility of cement residue entering into the surrounding environment • Minimise pollution of surface and ground water resources	• No evidence of contaminated soil on the construction site • No evidence of contaminated water resources • Method statement	Monitored daily	

Phase of development	CONSTRUCTION
Impact / issue	PLANT (D)

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
D1 Eating areas. i. The contractors must provide and maintain a method statement for "Crew camps and construction lay down areas". ii. The Contractor must, in conjunction with the EO, designate or agree on eating areas for eating during normal working hours. Adequate closed refuse bins must be provided and cleaned on a regular (weekly) basis. iii. No fires are allowed on-site. **iv.** Daily litter patrols should be done (at the end of the day).	• Control potential influx of vermin and flies • Neat workplace and hygienic environment • Minimise negative social impacts to surrounding businesses	• No visual sign of vermin and flies • No complaints from I&APs	Once off, monitor daily	
D2 Toilets and ablution facilities i. The contractor is responsible for providing all sanitary arrangements for his and the sub-contractors team. **A minimum of one chemical toilet must be provided per 15 persons.** ii. Sanitary arrangements must be to the satisfaction of the ECO and the local authority. Toilets must be of the chemical type. The contractor must keep the toilets in a clean, neat and hygienic condition. The contractor must always supply toilet paper at all toilets. iii. Toilets provided by the contractor must be easily accessible to ensure they are utilised. The contractor must ensure that the toilets are regularly serviced. The contractor (using reputable toilet-servicing company) must ensure that all toilets are cleaned and emptied before the builders' or other public holidays. **iv.** Toilets out on site must be secured to the ground and have a sufficient locking mechanism operational at all times.	• Ensure proper sanitation is achieved which will encourage the workforce to utilise toilets provided and not the surrounding habitat. • Minimise potential of diseases on site. • Minimise potential to pollute water resources.	• Workforce use toilets provided. • No complaints received from I&APs as well as members of the workforce. • No visible or measurable signs pollution of the environment (ground and surface water).	As and when required.	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
D3 Waste management i. The contractors must provide and maintain a method statement for "solid waste management". The method statement must provide information on proposed licensed facility to be utilised and details of proposed record keeping for auditing purposes. ii. Waste separation is required on-site and should be separated into general and hazardous waste. **General waste** such as building rubble should be kept separate. Non-recyclables (food and wet waste, empty cement bags, contaminated recyclables). **Recyclable materials** should be grouped and disposed of at a suitable facility such as drop-offs / recycling facility. **Hazardous waste** such as old oil, paint, etc must be kept in separate areas. iii. Any illegal dumping of waste must not be tolerated, and proof of legal dumping must be able to be produced on request. iv. Bins must be clearly marked for ease of management (general waste, recyclable, hazardous). v. Sufficient closed containers/ waste cages / skips (where relevant) must be located around the construction site to handle the amount of litter, wastes, rubbish, debris, and builder's wastes generated on the site. vi. All solid and chemical wastes that are generated must be removed and disposed of at a licensed waste disposal site. The contractor is to provide proof of such to the EO and ECO.	• Sustainable management of waste by recycling. • To keep the site neat and tidy. • Minimise litigation and complaints by I&APs. • Reduce visual impact. • Control potential influx of vermin and flies thereby minimising the potential of diseases on site and the surrounding environment. • Minimise potential to pollute soils, water resources and natural habitats.	• Disposal of rubble and refuse in an appropriate manner with no rubble and refuse lying on site. • Site is neat and tidy. • No complaints from surrounding residents and businesses. • Sufficient containers available on site. • No visible or measurable signs of pollution of the environment (soils, ground and surface water). • Method statement.	Daily.	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
D4 Dust i. Adequate measures must be taken to control dust into the atmosphere in terms of the Kouga Local Municipality Bylaws (applicable at the time) and the National Dust Control Regulations. ii. The contractors must provide and maintain a method statement for "dust control" for the construction site. The method statement must provide information on the proposed source of water to be utilised and the details of the licenses acquired for such usage. iii. Potable water must not be used as a means of dust suppression, and alternative measures must be sourced. The contractor will be responsible to source this water and obtain the required approvals to utilise this water for the purpose of dust suppression. iv. Dust production must be controlled by regular watering of roads and works area, should the need arise. NB: Concrete dust is toxic and damages soil properties. Therefore, watering to prevent dust spread must not be done where concrete dust has fallen, or it will infiltrate into the soil. Concrete bags must not be allowed to blow around the site and spread cement dust. v. Excessive dust conditions must be reported to the ECO.	• Reduce dust fall out. • Reduce visual impact.	• No visible signs of dust. • No complaints from interested and Affected parties. • No incidences reported to ECO. • No visible evidence of dust contamination on the surrounding environment. • Method statement. • Baseline targets not exceeded during regular monitoring of dust counts.	Monitored daily.	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
D5 Noise i. There must be compliance with the Noise Control Regulations by not creating a disturbing noise and or noise nuisance to the surrounding property owners. ii. In terms of noise impact for various increases over the ambient, the National Noise Regulations define an increase of 7dB as "disturbing". Noise levels during construction must therefore be kept within 7dB of the baseline data. iii. All construction vehicles must be in a good working order to reduce possible noise pollution. iv. Work hours during the construction phase must be strictly enforced unless permission is given. Permission must not be granted without consultation with the residents and businesses by the EO. v. Noise reduction is essential, and Contractors must endeavour to limit unnecessary noise, especially loud talking, shouting, or whistling, radios, sirens or hooters, motor revving, etc. vi. **Noisy activities must take place only during working hours**. These activities could include, but are not limited to, blasting, piling, use of pneumatic jackhammers and compressors, bulk demolitions, etc.	• Maintain noise levels below "disturbing" as defined in the National Noise Regulations • Minimise the nuisance factor of the development	• No complaints from surrounding landowners or I&APs	As and when required	

Phase of development	CONSTRUCTION
Impact / issue	Construction (E)

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
E1 Crew camps i. The contractors must provide and maintain a method statement for "Crew camps and construction lay down areas". ii. Accommodation for members of the workforce is not permitted on site. iii. The contractor's camp must be monitored for dust fallout and dust suppression applied as required. This may include the laying of gravel. The use of grey water can be considered as an option if the required permits have been acquired. iv. Location of the contractor's camp, offices and storage facilities must be decided liaison with Kouga Local municipality. No person must be allowed to stay on neighbouring sites unless it is cleared with the owner. In such an event all requirements contained herein for the contractor's camps will apply. v. The contractor is responsible for cleaning the contractor's camp and construction site of all structures, equipment, residual litter and building materials at the end of the construction period and, the topsoil restored in areas where landscaping is to take place.	• Minimise water pollution. • Minimise dust fallout. • Minimise unwarranted environmental damage outside the footprint. • Maintain a clean and healthy working environment. • Minimise impact to surrounding environment.	• No signs of water or soil pollution. • No complaints from surrounding landowners or I&APs. • No visible signs of litter. • Method statements.	Monitor daily.	
E2 Fires i. The contractors must provide and maintain a method statement for "fires", clearly indicating where and for what fires will be utilised plus details on the fuel to be utilised. ii. **Absolutely no burning of waste is permitted on site**.	• Maintain safety on site.	• Method statement.	Monitor daily.	

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
E3 Heritage i. In terms of the National Heritage Act, 1999 (Act No. 25 of 1999), construction personnel must be alert and must inform the local heritage agency should they come across any findings of heritage resources within 24 hours. ii. If any heritage resources including archaeological material, paleontological material, graves or human remains are encountered during earth moving activities, all work must cease, and they must be reported to The Eastern Cape Provincial Heritage Resources Authority (ECPHRA)immediately. iii. Should any archaeological artefacts be exposed during construction activities, work on the area where the artefacts were found must cease immediately and the ECO must be notified within 24 hours. iv. Upon receipt of such notification, the ECO will arrange for the excavation to be examined by an Archaeologist. v. Under no circumstances must archaeological artefacts be removed, destroyed or interfered.	• Limit the destruction of the country's heritage resources. • The preservation and appropriate management of new archaeological finds should these be discovered during construction.	• No destruction of or damage to known archaeological sites.	Monitor Daily.	
E4 Access route / haul roads i. No unauthorised access is permitted. Any authorised clearing for access roads must be done under the supervision of the ECO. ii. Any damaged or degradation will be investigated, and fines issued, the affected areas must be immediately rehabilitated. iii. Access roads for earthmoving-equipment must be clearly designated and be positioned as close as possible to the proposed development site. No driving off from the marked roads is permitted and designated parking areas must be identified and demarcated with applicable signage.	• No unauthorised access is permitted.	• No unauthorised access is permitted.	As required, monitor daily.	
E5 Visual impact i. Shade cloth or a suitable material / barrier must be utilised to conceal and minimise the visual impact of contractor camps, lay down and storage area	• Minimise visual impact.	• No complaints from I&APs.	Monitor daily.	

Phase of development	OPERATION
Impact / issue	Operation (F)

MITIGATION MEASURE	MANAGEMENT OBJECTIVES	MEASURABLE TARGETS	FREQUENCY OF ACTION	NOTES
F1 Site Rehabilitation i. The Contractor shall be responsible for rehabilitating all areas cleared or disturbed for construction purposes to return these areas to their former condition. This will include removal of all cement sludge, waste concrete, builders, refuse etc., ripping of compacted surfaces to a depth of 150 mm to loosen soil, where applicable.	Minimise the impacts of construction activity	No post development deterioration of the environment.	Daily	
F2 Record Keeping i. Where applicable, the applicant must ensure that evidence of all disposed and contaminated products, waste or residues, which have been generated at the construction site, is documented. **ii.** The applicant must ensure that complaints received by the during construction are documented.	To ensure proper overall management and maintenance of the facility	No complaints from adjacent landowners, residents and other parties	Daily	

ANNEXURE 1 (SAMPLE)

DECLARATION OF UNDERSTANDING BY THE DEVELOPER

I, _____

Representing _____

Declare that I have read and understood the contents of the Construction Environmental Management Programme for:

Contract: **Structural repairs to Paradise Beach Tower**

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed: _____

Place: _____

Date: _____

Witness 1: _____

Witness2: _____

ANNEXURE 2 (SAMPLE)

DECLARATION OF UNDERSTANDING BY THE ENGINEER

I, _____

Representing _____

Declare that I have read and understood the contents of the Construction Environmental Management Programme for:

Contract **Structural repairs to Paradise Beach Tower**

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed: _____

Place: _____

Date: _____

Witness 1: _____

Witness2: _____

ANNEXURE 3 (SAMPLE)

DECLARATION OF UNDERSTANDING BY THE CONTRACTOR

I, _____

Representing _____

Declare that I have read and understood the contents of the Construction Environmental Management Programme for:

Contract **Structural repairs to Paradise Beach Tower**

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed: _____

Place: _____

Date: _____

Witness 1: _____

Witness2: _____

METHOD STATEMENT: Solid Waste Management

CONTRACT:……. **DATE**:…….

WHAT WORK IS TO BE UNDERTAKEN? [give a brief description of the works to be undertaken on site that will generate waste (hazardous and non-hazardous wastes)]: * Note: please attach extra pages if more space is required.

*Insert additional pages as required

WHERE ARE THE WORKS TO BE UNDERTAKEN? (where possible, provide an annotated plan and a full description of the extent of the works): * Note: please attach extra pages if more space is required

*Insert additional pages as required

METHOD STATEMENT: Solid Waste Management (contd.)

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start Date:…….. **End Date:**…….

HOW IS WASTE TO BE MANAGED ON SITE? (provide as much detail as possible, including annotated sketches and plans where possible): * Note: please attach extra pages if more space is required

***Insert additional pages as required**

1) ENGINEER
The work described in this Method Statement, if carried out according to the methodology described, is satisfactory to prevent or control environmental harm and is thus approved:

_____ _____
(Signed) (Print name)

Dated:._____

2) ECO
The work described in this Method Statement, if carried out according to the methodology described, is satisfactory to prevent or control environmental harm and is thus approved:

_____ _____
(Signed) (Print name)

Dated:._____

2) CONTRACTOR
I understand the contents of this Method Statement and the scope of the works required of me. I further understand that this Method Statement may be amended on application to and with approval by the Engineer, and that the SHE Coordinator, Construction Manager and ECO will audit my compliance with the contents of this Method Statement

_____ _____
(Signed) (Print name)

Dated: _____

INCIDENT AND ENVIRONMENTAL LOG

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

ANNEXURE 6

TYPICAL INCIDENTS AND RECURRING PENALTIES

TYPICAL INCIDENTS INCURRING PENALTIES	VALUE
Failure to secure construction site from public access	R5,000
Failure to demarcate working areas and servitudes and/or maintain fences and/or demarcation tape.	R1,000
Failure to stockpile topsoil correctly (per incident)	R2,000
Failure to stockpile materials in designated areas (per incident)	R500
Discharging effluent and/or polluted storm water onto the ground or into surface water (per incident)	R2,000
Failure to provide adequate sanitation, waste disposal facilities or services (per incident)	R1,000
Failure to demarcate construction area boundaries before commencing construction clearance and other activities (per incident)	R5,000
Venturing into or undertaking construction related activities within no-go areas, without formal written approval from the ECO (per incident)	R5,000
No induction regarding environmental matters and site housekeeping practices (per employee)	R2,000
Stockpile of soils and materials outside demarcated areas (per incident)	R1,000
Inappropriate mixing of cement/concrete and poor management of concrete slurry (per incident)	R2,000
Burning of waste on site (including cement bags) (per incident)	R 2,000
Untidiness and litter at camp (per incident)	R200
Unauthorised removal of indigenous trees, medicinal or other plants (per incident)	R2,000
Damaging/killing animals/birds (per incident)	R 1,500
Failure to erect temporary fences as required (per incident)	R2,000
Failure to reinstate disturbed areas within the specified timeframe (per incident)	R2,000
Fire – costs of runaway fires will be borne by the Contractor, should he/she be proven responsible for such fires (per incident)	R25,000
Failure to provide adequate equipment for emergency situations (per incident)	R5,000
Defacing, painting or damaging natural or heritage features (per incident) – mandatory removal of employee from site	R5,000
Damaging cultural, historical and/or archaeological sites of importance (per incident) – mandatory removal of employee from site	R5,000
Failure to maintain basic safety measures on site	R1,000
Failure to carry out required community liaison, damage to property etc., without prior negotiation and/or compensation and other social infringements (per incident)	R1,000

TYPICAL INCIDENTS INCURRING PENALTIES	VALUE
Persistent and un-repaired oil leaks from machinery. The use of inappropriate methods of refuelling (per incident)	R2,000
Failure to provide drip trays and/or empty them frequently (per incident)	R500
Inappropriate use of bins and poor waste management on site (per incident)	R500
Inappropriate off-site disposal of waste from site (per incident)	R10,000
Deliberate lighting of illegal fires on site (per incident)	R1,000
The eating of meals on site outside the defined eating area. Individual not making use of the site ablution facilities (per incident)	R200
Inappropriate use of adjacent watercourses and water bodies – such as for unapproved water abstraction, washing of vehicles, wastewater disposal and use by employees for washing (per incident)	R1000
Any person, vehicle, item of plant, or anything related to the Contractor's operations causing a public nuisance (per incident)	R500
Construction vehicles not adhering to speed limits (per incident)	R200
Failure to maintain and register incidents in the incident register (per incident)	R1,000
Failure to remove all temporary features and leftovers from the construction site and works areas upon completion of the works (per incident)	R50,000
Any contravention with a Method Statement (per incident)	R5,000
Repeated contravention of the specifications or failure to comply with instructions (per incident)	R5,000

NOTE: THE SUBJECTION AND PAYMENT OF A PENALTY DOES NOT ABSOLVE THE CONTRACTOR FROM FULLY REMEDYING ANY TRANGRESSION OR ENVIRONMENTAL DAMAGE. SHOULD THE CONTRACTOR FAIL TO ADDRESS HIS NON-CONFORMANCE, DOHS HAS THE RIGHT TO REMEDY THE INCIDENT AND RECOVER THE COSTS FROM THE CONTRACTOR.