



# ECC

**ENVIRONMENTAL**  
COMPLIANCE CONSULTANCY



ECC- ECC-111-307-REP-10-D

## ENVIRONMENTAL MANAGEMENT PLAN

DEVELOPMENT OF RESIDENTIAL & RETAIL (INCLUDING TOURISM) ACTIVITIES ON ERF  
4747 IN SWAKOPMUND, ERONGO REGION, NAMIBIA

*PREPARED FOR*

 LIGHTHOUSE PROPERTY  
INVESTMENT TRUST

JANUARY 2021

## TITLE AND APPROVAL PAGE

<b>Project Name:</b>	Development of residential & retail (including tourism) activities on Erf 4747 in Swakopmund, Erongo Region, Namibia
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## DEFINITIONS AND ABBREVIATIONS

dB	Decibels
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence
Hz	Hertz
I&APs	Interested and affected parties
kHz	Kilohertz
kPa	Kilopascal
SL	Sound Level

# 1 INTRODUCTION

## 1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (ECC) was engaged by Lighthouse Property Investment Trust and to compile an Environmental Management Plan (EMP) in accordance with the Environmental Management Act, No. 7 of 2007. The purpose of this EMP is to support the development activities on Erf 4747 for the purposes of constructing a residential and commercial development, with tourism activities. The proposed project is located on erf 4747 within the historical CB of Swakopmund which is owned by the proponent. The site location is set out in Figure 1 below.

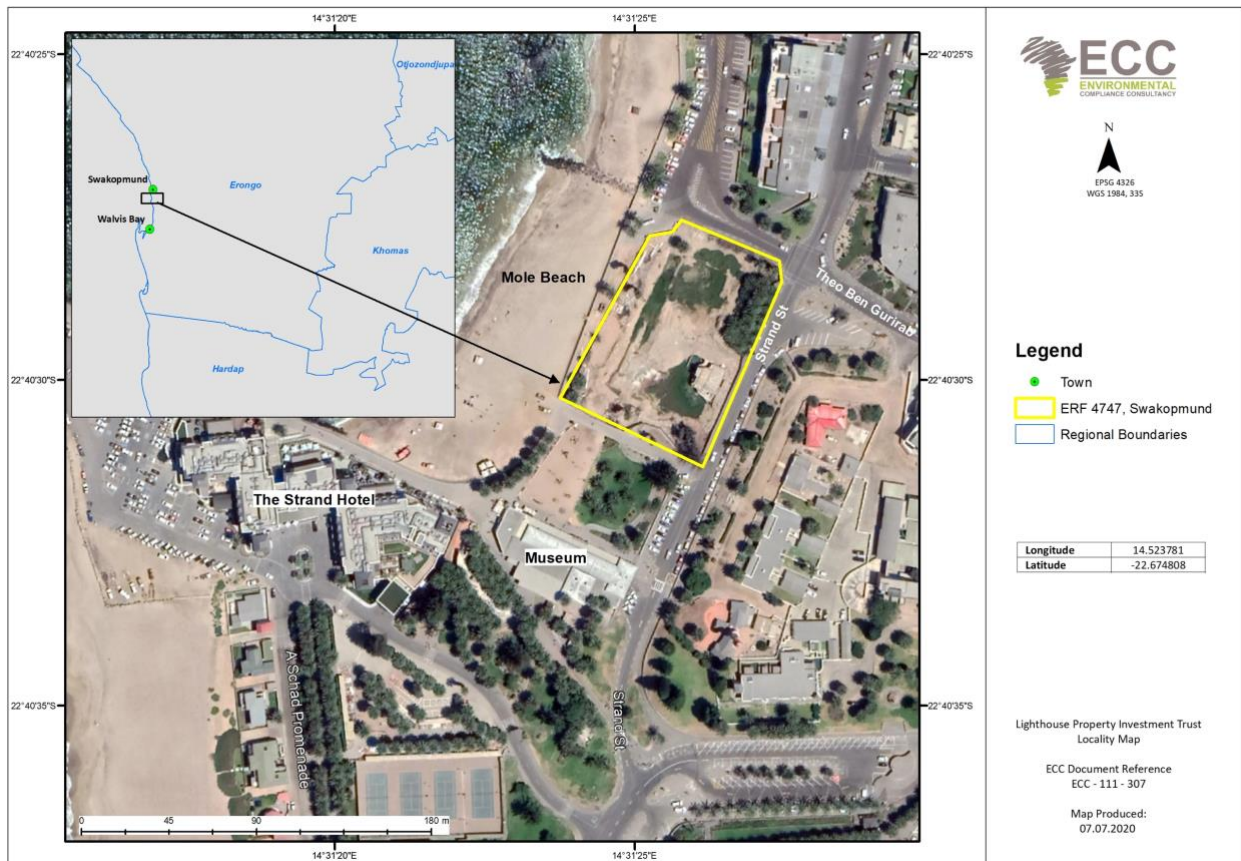


FIGURE 1 – LOCATION OF THE PROPOSED DEVELOPMENT, SWAKOPMUND

Lighthouse Investment Property Trust proposes to develop the area for use as a residential and commercial development, with tourism activities either in the form of a hotel and or residential units (refer to Figure 1).

The proposed development comprises the following:

- A retail footprint (multiple outlets) of 140 m<sup>2</sup>;
- Restaurants (maximum 3 varieties) of 1519 m<sup>2</sup>;
- A residential footprint of 16 400m<sup>2</sup>;
- Outside public amenities, including jungle gyms, splash pad and play park area as well as beach showers within the play park;

- Inside public amenities, including a 140 m<sup>2</sup> (male & female) public ablution space, incorporating changing rooms with showers, toilets and lockers;
- Multi-level tenant parking for 233 vehicles;
- Upgrade the existing Erongo Red Substation on site;
- Upgrading of the existing municipal walkways/ boardwalk where applicable, and
- Landscaping (including examining the grown palm trees and possibly transplanting them onto a different area within the site).

Erf 4747 is surrounded by open municipal land and comprises a public play park to the south, the mole promenade on the west and public parking to the north and Strand Street to the east.

The proposed development is expected to generate income and job opportunities for the local community. It is estimated that approximately 3000 direct and indirect employment opportunities could be created during the construction phase.

## 1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

In terms of the Environmental Impact Assessment (EIA) Regulations and the Environmental Management Act, No. 7 of 2007, the proposed development qualifies as a listed activity. Therefore, an application for an environmental clearance certificate is to be submitted to the Directorate of Environmental Affairs. An Environmental Scoping Report and EMP are required to be submitted as part of the application process, as well as to support the decision-making process. This report presents the EMP and has been undertaken in terms of the requirements of the act and its regulations.

## 1.3 PURPOSE AND SCOPE OF THIS REPORT

The purpose of this EMP is to provide a management framework for the proposed activities so that the potential environmental impacts identified through the scoping process are avoided, minimised and mitigated as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

This EMP also presents protocols, procedures, roles and responsibilities to ensure the management arrangements are appropriately and effectively implemented. This EMP forms an appendix to the environmental assessment report and has been based on the findings of the assessment; therefore, the environmental assessment report should be referred to for further information on the proposed project, assessment methodology, applicable legislation, and assessment findings.

This EMP is a live document and shall be reviewed at predetermined intervals, and or updated when the scope of works alters, or when further data or information can be added. All personnel working on the project will be legally required to comply with the standards set out in this EMP.

The scope of this EMP includes all construction and operational activities carried out.

## 1.4 MANAGEMENT OF THIS EMP

The proponent, Lighthouse Property Investment Trust will hold the environmental clearance certificate for the proposed project and will be responsible for the implementation and management of this EMP. The implementation and management of this EMP and thus the monitoring of compliance shall be undertaken through daily duties and activities and monthly inspections.

## 1.5 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirement, which includes the component, fire safety management. This will be provided in the overall Health and Safety Management Plan (HSMP) to be developed by the proponent.

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines, and relevant laws), the contract and statutory requirements are to take precedence.

The information contained in this EMP has been based on the project description as provided in the environmental scoping report. Where the design or construction methods alter, this EMP may require updating and potential further assessment to be undertaken.

## 1.6 ENVIRONMENTAL CONSULTANCY

Environmental Compliance Consultancy (ECC), a Namibian consultancy with registration number 2013/11401, has prepared this EMP on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across southern Africa, in the public and private sectors. ECC is independent of the proponent and has no vested or financial interest in the proposed project, except for fair remuneration for professional services rendered.

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## 2 PROJECT MANAGEMENT PERSONNEL

This EMP provides measures, guidelines, and procedures for managing and mitigating potential environmental impacts. The EMP also indicates monitoring and reporting requirements and sets responsibilities for those carrying out management and mitigation measures. Lighthouse Property Investment Trust shall provide a project team to oversee activities and responsibilities.

### 2.1 ORGANISATIONAL STRUCTURE, ROLES, AND RESPONSIBILITIES

The proponent shall be responsible for:

- Ensuring all members of the project team, including contractors, comply with the procedures set out in this EMP;
- Ensuring that all persons are provided with sufficient training, supervision, and instruction to fulfil this requirement; and
- Ensuring that any person's allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed above.

The key personnel and environmental responsibilities of each role are presented in Table 1.

TABLE 1 - KEY ROLES AND RESPONSIBILITIES

ROLE	RESPONSIBILITY & DUTIES
<b>Proponent</b>	<ul style="list-style-type: none"> <li>- Overall responsibility for the implementation and management of this EMP;</li> <li>- Ensure the environmental policy is communicated to all personnel throughout the proposed project and ensure that employees, contractors and visitors understand and adhere to the EMP;</li> <li>- Responsible for providing the required resources (including financial and technical) to complete the required tasks;</li> <li>- Appoint a project manager and a site manager (or nominated supervisor);</li> <li>- Ensure that all employees, contractors and visitors are inducted on environmental measures.</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>- Responsible for ensuring compliance with this EMP including overseeing all day to day activities during the duration of the project, including routine and non-routine maintenance works, as well as decommissioning tasks;</li> <li>- Ensure adequate resources are made available for implementation of this EMP;</li> <li>- Responsible for the management, maintenance and revisions of this EMP;</li> <li>- Ensure all personnel are aware of the commitments made in this EMP and any other relevant regulatory requirements applicable to the project;</li> <li>- Ensure all employees and contractors participate in a site induction process prior to commencing work on the project;</li> <li>- Maintain the community issues and concern register, and keep records of complaints;</li> <li>- Ensure that best environmental practice is undertaken throughout the duration of the project; and</li> <li>- Report any non-compliance or accidents to the regulatory authority.</li> </ul>
<b>Site Manager (or nominated supervisor)</b>	<ul style="list-style-type: none"> <li>- Ensure that all employees, contractors and visitors to the site are conversant with the requirements of this EMP, relevant to their roles on site and adhere to this EMP at all times;</li> </ul>

ROLE	RESPONSIBILITY & DUTIES
	<ul style="list-style-type: none"> <li>- Provide environmental awareness / management training and site inductions for all employees, contractors and visitors;</li> <li>- Monitor daily operations and ensure adherence by personnel to the EMP;</li> <li>- Receive, respond to and record complaints; and</li> <li>- Report any non-compliance or accidents to the project manager.</li> </ul>
<b>Employees (and contractors and visitors where applicable)</b>	<ul style="list-style-type: none"> <li>- Responsible for being compliant with this EMP throughout the project;</li> <li>- Adhere to this EMP at all times;</li> <li>- Ensure attendance of site inductions;</li> <li>- Ensure appropriate briefings for certain activities have been provided and are fully understood; and</li> <li>- Report any operations and conditions that deviate from the EMP or any non-compliant issues or accidents to the site manager and project manager.</li> </ul>

## 2.2 CONTRACTORS

All contractors hired during the project (including contractors appointed for maintenance activities) shall be compliant with this EMP, and shall be responsible for the following:

- Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements;
- Implement appropriate environmental and safety management measures;
- Report environmental issues, including actual or potential environmental incidents and hazards, to the project manager; and
- Ensure appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported.

## 2.3 EMPLOYMENT

The proponent should ensure that a locals first policy be adopted on the project pertaining to employment opportunities during the construction and operational phase of the project. The following shall be complied with:

- In liaison with the relevant authorities, the proponent shall ensure that local people have access to information about job opportunities and are considered first for contract employment positions;
- The number of job opportunities shall be made known together with the associated skills and qualifications;
- The maximum length of time the job is likely to last for shall be clearly indicated;
- Foreign workers with no proof of permanent legal residence shall not be hired; and
- Every effort shall be made to recruit from the pool of unemployed workers living in the local area.

### 3 COMMUNICATIONS AND TRAINING

In order to ensure potential risks and impacts are minimised, it is vital that personnel are appropriately informed and trained on operational procedures that include the above mitigation measures. It is also important that regular communications are maintained with all the stakeholders and made aware of potential impacts and how to minimise or avoid them. This section sets out the framework for communication and training in relation to the EMP.

#### 3.1 COMMUNICATIONS

During the entire project, the project manager and / or site manager (or nominated site supervisor) shall communicate site-wide environmental issues to the project team through the following means (as and when required):

- Site induction;
- Audits and site inspections;
- Toolbox talks, including instruction on incident response procedures; and
- Briefings on key project-specific environmental issues.

This EMP shall be distributed to the project team, including contractors, to ensure that the environmental requirements are communicated effectively. Key activities and environmentally sensitive operations shall also be briefed to workers and contractors.

During the entire project regular communications between the management team shall include discussing any complaints received and actions to resolve them; any inspections, audits or non-conformance with this EMP and any objectives or target achievements.

#### 3.2 ENVIRONMENTAL EMERGENCY AND RESPONSE

Table 2 contains a list of numbers to be contacted in case of an emergency. All personnel will be made aware of these numbers.

TABLE 2 - EMERGENCY CONTACT DETAILS

TOWN	AMBULANCE	POLICE	FIRE BRIGADE
Swakopmund	+264 (64) 40-5731	+264 (64) 10111	+264 (64) 410-4111

#### 3.3 COMPLAINTS HANDLING AND RECORDING

Any complaints received verbally or in writing by any personnel on the project site shall be recorded by the receiver, including the name and contact details of the complainant, date and time of the complaint, and the nature of the complaint. The information shall be given to the project manager who is overall responsible for the management of complaints and will provide a written response to the complainant. The project manager shall inform employees of issues, concerns or complaints.

The project manager shall maintain a complaint register that will detail the name and contact details of the complainant, date and time of the complaint, nature of the complaint, action is taken to resolve issues, and date of complaint handover. The project manager shall be responsible for nominating the correct personnel to coordinate and resolve the issue.

The workforce shall be informed about the complaints register, its location and the person responsible, in order to refer local residents or the general public who wish to lodge a complaint. The complainant shall be informed in writing of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons are to be recorded in the register.

The complaints register shall be kept for the duration of the project and will be available for government or public review upon request.

### 3.4 TRAINING AND AWARENESS

All personnel working on the project shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training and experience.

### 3.5 SITE INDUCTION

All personnel involved in the project, contractors and visitors shall be inducted to the site with specific environmental and social awareness training, and health and safety issues. The environment and social awareness training shall ensure that everybody on site is familiar with the principles of this EMP, the environment and social aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

The project manager shall ensure a register of completed training is maintained.

The site induction should include, but not limited to the following:

- A general site-specific induction that outlines:
  - o What is meant by “environment” and “social”;
  - o Why the environment needs to be protected and conserved;
  - o How construction activities can impact on the environment; and
  - o What can be done to mitigate against such impacts;
- The inductee’s role and responsibilities with respect to implementing the EMP;
- The site environmental rules;
- Details of how to deal with, and who to contact if environmental problems should occur;
- Focal themes such as compliance, reporting of accidents and incidents, good housekeeping and standard procedures for waste management;
- The potential consequences of non-compliance with this EMP and relevant statutory requirements; and
- The role of responsible people for the project.

## 4 REPORTING, COMPLIANCE, AND ENFORCEMENT

### 4.1 ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING

#### 4.1.1. DAILY COMPLIANCE MONITORING

A copy of this EMP shall be on-site throughout the duration of the project and shall be available upon request. It is the responsibility of the project manager and site manager (or nominated site supervisor) to ensure this EMP is complied with through their daily roles. Daily, weekly and monthly inspections will be undertaken. Any environmental problems or risks identified shall be notified to the project manager and actioned as soon as is reasonably practicable.

#### 4.1.2. MONTHLY COMPLIANCE MONITORING

Monthly inspections shall be undertaken by the site manager to check that the standards and procedures set out in this EMP are being complied with and pollution control measures are in place and working correctly. Any non-conformance shall be recorded, including the following details: a brief description of non-conformance; the reason for the non-conformance; the responsible party; the result (consequence); and the corrective action taken and any necessary follow up measures required.

### 4.2 REPORTING

There shall be a requirement to ensure that any incident or non-compliance, including any environmental issue, failure of equipment or accident, is reported to the project manager immediately.

### 4.3 ENVIRONMENTAL PERMITS

Whilst the Water Resources Management Act, No. 11 of 2013 is not enforced, it is best practice to adhere to its stipulations while ensuring compliance with the Water Act, No. 54 of 1956, which is maintained still. A licence to abstract water, also seawater, is required. As the abstraction of seawater will be obtained through beach boreholes, permit(s) to drill these boreholes need to be obtained as well. A permit to discharge brine is also required. The proponent will apply for the relevant permits and shall operate in accordance with any conditions stipulated.

### 4.4 NON-COMPLIANCE

Where it has been identified that activities are not compliant with this EMP, the project manager shall employ corrective actions so that the activities return to being compliant as soon as possible. In instances where the requirements of the EMP are not upheld, a non-conformance and corrective action notice shall be produced. The notice shall be generated during the inspections and the project manager shall be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

A non-compliance event / situation, for example, is considered if:

- There is evidence of the contravention of this EMP and associated indicators or objectives;
- The project manager and / or site manager (or nominated supervisor) have failed to comply with corrective or other instructions issued by the project manager or qualified authority; or
- The project manager and /or site manager (or nominated supervisor) fail to respond to complaints from the public

Activities shall be stopped in the event of a non-compliance until corrective action(s) has been completed.

#### 4.5 INCIDENT REPORTING

The project manager must ensure that an accident and incident (including minor or near-miss) reporting system is maintained so that all applicable statutory requirements are covered. For any serious incident involving a fatality, or permanent disability, the incident scene must be left untouched until witnessed by a representative of the police. This requirement does not preclude immediate first aid being administered and the location being made safe.

The project manager must investigate the cause of all work accidents and significant incidents and must provide the results of the investigation and recommendations on how to prevent a recurrence of such incidents. A formal root-cause investigation process should be followed.

#### 4.6 DISCIPLINARY ACTION

This EMP is a legally binding document and non-compliance with it shall result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to):

- Fines / penalties;
- Legal action;
- Monetary penalties imposed by the proponent on the contractor;
- Withdrawal of license/s; and
- Suspension of work.

The disciplinary action shall be determined according to the nature and extent of the transgression or non-compliance, and penalties are to be weighed against the severity of the incident.

## **5 ENVIRONMENTAL AND SOCIAL MANAGEMENT**

### **5.1 OBJECTIVES AND TARGETS**

Environmental objectives for the project are as follows:

- Zero pollution incidents;
- Minimal disturbance to traffic;
- Minimise noise pollution;
- Minimise light pollution (the correct placement of lights);
- Minimise dust pollution; and
- Minimise the generation of waste.

### **5.2 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES**

An environmental review of the proposed project has been completed to identify all the commitments and agreements made within the environmental assessment report. From this, a list of environmental commitments and risks were produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment during the project.

Table 3 provides a register of environmental risks and issues, which identifies mitigation and monitoring measures, as well as the responsible person. This register will be subject to regular review by the project manager and updated when necessary. The project manager will use this register to undertake monthly inspections to ensure the project is compliant with this EMP.

TABLE 3 - ENVIRONMENTAL RISKS AND ISSUES, AND MITIGATION AND MONITORING MEASURES

ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<b>CONSTRUCTION PHASE</b>				
<b>General construction activities (terrain preparation, minimal excavation, and general construction)</b>	<ul style="list-style-type: none"> <li>- Potential pollution to the environment</li> <li>- Potential risk to the occupational health and safety of construction crew.</li> <li>- Potential nuisance effect on community and surrounding communal areas</li> </ul>	<ul style="list-style-type: none"> <li>- Develop and implement an operation manual or procedures to conduct work and implement monitoring programmes thereafter;</li> <li>- Conduct site toolbox talks before shifts commence;</li> <li>- Maintain continuous communication with I&amp;APs to identify concerns and mitigation measures;</li> <li>- Compliance with all applicable laws and agreements;</li> <li>- Training and raise awareness to sensitize employees about contentious issues like working in urban spaces and control of pollutants;</li> <li>- Ensure appropriate supervision of all activities;</li> <li>- Accidents and incidents need to be reported to the project manager and recorded in the incident register;</li> <li>- Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers); and</li> <li>- Refuelling will be done in areas with adequate preventative measures in place.</li> <li>- Workers should be shifted as the project works require so as to avoid a large concentration of workers on site at any given moment. All 3000 workers should not be present on site at any given point in time;</li> <li>- The proponent should ensure adequate and good quality break areas are provided for workers on site during their lunch breaks;</li> <li>- Access to the beach should be restricted at all times during work hours;</li> <li>- Security personnel to be stationed at access points to the site at all times during construction to manage pedestrian and vehicle entry to and exit from the site; and</li> <li>- A visitor's register should be placed at the main entrance to the site and updated and maintained regularly to keep track of who comes to site.</li> </ul>	Weekly, monthly	Site manager and or Project manager or the nominated site supervisor



ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<ul style="list-style-type: none"> <li>- Movement of heavy equipment and vehicles,</li> <li>- Nuisance (noise) pollution</li> <li>- Light disturbances</li> </ul>	<ul style="list-style-type: none"> <li>- Heavy vehicles should make use of Theo Ben Gurirab avenue when travelling to and from the site only;</li> <li>- Restrict speed of vehicles;</li> <li>- All vehicles and machinery / equipment to be shut down or throttled back between periods of use;</li> <li>- Restrict construction activities to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday if necessary);</li> <li>- All vehicles and machinery / equipment to be shut down or throttled back between periods of use;</li> <li>- Control of noise emissions may include the use of silencers for fans, room enclosures, noise barriers;</li> <li>- No loud music is allowed to be played on site;</li> <li>- Vehicle horns are only allowed to be used in safety situations and not for any other purpose on site during work hours;</li> <li>- If noise cannot be reduced to acceptable levels, personal hearing protection measures would be necessary;</li> <li>- Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon;</li> <li>- All outside building lights should be placed facing downward to the ground; and</li> <li>- Flood lights around the perimeter of the site should never face upward or outward, but at a 90° plane or less and downward.</li> </ul>	Daily throughout the construction period	
	<ul style="list-style-type: none"> <li>- Dust and emissions</li> </ul>	<ul style="list-style-type: none"> <li>- All vehicles and machinery / equipment to be shut down or throttled back between periods of use;</li> <li>- Use one identified access route only with appropriate turning circles and delivery zones;</li> <li>- Apply dust suppression measures where possible as a proactive measure to avoid dust creation;</li> <li>- Restrict speed of vehicles;</li> <li>- Specific activities that may generate dust and impact on residents shall be avoided during high wind events; and</li> <li>- Locate construction materials stockpiles in sheltered areas where it is not exposed to erosive effects of wind.</li> </ul>	Daily, weekly	

ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<ul style="list-style-type: none"> <li>- Loss of soil quality due to mixing of earth matter, trampling, compaction and pollution,</li> <li>- Enhanced wind erosion</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure prevention measures are in place when terrain activities take place. No concrete mixing to take place on open soil;</li> <li>- Avoid activities during windy conditions;</li> <li>- Where necessary, establish wind erosion barriers to curb possible erosion during high wind periods;</li> <li>- Limit the possibility of compaction and creation of a hard subsurface in and outside the site. Areas utilized as construction equipment laydown areas should not be allowed to remain compacted after the construction period;</li> <li>- Equipment and vehicles must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil; and</li> <li>- In the event of spills and leaks, polluted soils must be collected and disposed of at an approved hazardous waste site.</li> </ul>	Daily	
	Disruption to traffic flow in the immediate vicinity	<ul style="list-style-type: none"> <li>- Set up appropriate vehicle movement signage on local roads/intersections surrounding the project site to direct traffic flow in a safe manner;</li> <li>- Whenever feasible, construction vehicles should avoid leaving the site at peak traffic periods (07:00 to 08:30 AM, 12:00PM to 14:00PM and (17:30PM to 18:30 PM));</li> <li>- Construction vehicles should not be allowed to park off site, except in dedicated parking spaces (off site) as may be agreed upon between the proponent and the local authority;</li> <li>- All necessary reflective and lighting signs should be placed on project and construction vehicles to maximize visibility and reduce potential accidents that may have occurred otherwise.</li> </ul>	Daily	
	Loss / alteration of terrestrial habitat	<ul style="list-style-type: none"> <li>- Compulsory toolbox talks and induction of employees;</li> <li>- Always determine the line / route of activity beforehand and restrict all activities to a demarcated area whenever renovations to the building or landscaping is required; and</li> <li>- Reinstate and rehabilitate where necessary.</li> </ul>	Depending on active activity on site	

ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<b>Fuel handling and storage, maintenance on equipment, machinery and vehicles</b>	<ul style="list-style-type: none"> <li>- Soil contamination</li> <li>- Groundwater contamination</li> <li>- Nuisance (visual impacts, litter)</li> </ul>	<ul style="list-style-type: none"> <li>- Good housekeeping;</li> <li>- Training and awareness through toolbox talks and induction;</li> <li>- Implement a Standard Operational Procedure on waste management, from cradle to grave for all kinds of waste possible on-site;</li> <li>- Raise awareness about the importance of responsible waste management, including wastewater management;</li> <li>- Implement a culture of correct waste collection, waste segregation and waste disposal;</li> <li>- Avoid hazardous waste on site;</li> <li>- Wastewater discharges will be contained – no disposal of wastewater directly into the environment; and</li> <li>- All fuel and petrochemical products are to be stored on an impermeable, bunded and covered surface that is clearly marked and access controlled.</li> </ul>	Daily	<ul style="list-style-type: none"> <li>- Employees, contractors</li> <li>- Site manager (or nominated site supervisor)</li> </ul>
<b>Job creation, skills development and business opportunities</b>	Beneficial socio-economic impacts on a local and regional scale.	<ul style="list-style-type: none"> <li>- Maximise local employment and local business opportunities;</li> <li>- Enhance the use of local labour and local skills as far as reasonably possible; and</li> <li>- Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible.</li> </ul>	Monthly	Project manager
<b>General construction activities</b>	Fire outbreaks	<ul style="list-style-type: none"> <li>- All personnel and contractors on the site should comply with the fire management and emergency preparedness and occupational health and safety plans in its entirety, as developed by the proponent;</li> <li>- Fire extinguishers must be kept on site at strategic locations, easily accessed and maintained in good working order;</li> <li>- Regular fire drills to be conducted on site and attendance and performance recorded; and</li> <li>- The proponent to develop a fire rescue and management procedure in collaboration with the local authority for the site and implement its provisions.</li> </ul>	Daily	ECO Officer
<b>OPERATIONAL PHASE</b>				
<b>Visitors to the building</b>	Fire outbreaks	<ul style="list-style-type: none"> <li>- The proponent to develop a fire rescue and management procedure in collaboration with the local authority for the building and implement its provisions including monitoring;</li> <li>- Adequate safety signage should be displayed on all levels of the building as per the proponent's health and safety management plan principles and local municipal regulations in this regard;</li> </ul>	Weekly	ECO Officer

ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT / MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<ul style="list-style-type: none"> <li>- All firefighting systems to be tested and maintained regularly as well as firefighting equipment; and</li> <li>- All emergency escape routes to be kept uncluttered and unblocked to allow easy exit from the building.</li> </ul>		
	Safety of visitors and employees	<ul style="list-style-type: none"> <li>- The proponent should implement its health and safety management plan stringently;</li> <li>- Ensure all entrances and exits are structurally sound and safe to use at all times;</li> <li>- Ensure security personnel are adequately trained and visible throughout the public spaces within and outside the building; and</li> <li>- Ensure that effective complaints recording procedures are in place.</li> </ul>	Daily	ECO Officer
<b>Job creation, skills development and business opportunities</b>	Beneficial socio-economic impacts on a local and regional scale.	<ul style="list-style-type: none"> <li>- Maximise local employment and local business opportunities;</li> <li>- Enhance the use of local labour and local skills as far as reasonably possible;</li> <li>- Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible.</li> </ul>	Quarterly	Project manager
<b>Generation of general waste</b>	Unhygienic proliferation of domestic waste on site	<ul style="list-style-type: none"> <li>- During operations, the solid waste for the proposed development will be managed and improved in line with the principles of the waste hierarchy of waste prevention, re-use, recycle or compost, energy recovery and disposal, where waste minimisation and recycling is preferred to waste treatment and disposal (National Solid Waste Management Strategy, MET 2019);</li> <li>- A refuse container will be a SABS approved (SABS 1494), 240 litre, Polyethylene, two wheeled, mobile refuse containers (MGB 240), internationally known as the "Otto Bin"; and</li> <li>- Every commercial unit should be supplied with an Otto Bin and all bins should be stored in a central storage area within the premises and emptied on a weekly basis.</li> </ul>	Weekly	Building maintenance team and Store owners
<b>Outside lighting attached to the building or loose standing on the grounds</b>	Light pollution	<ul style="list-style-type: none"> <li>- Placement of outside wall lights on the first floor of the building should be directed to glow in a downward direction to avoid light pollution and glare onto strand street;</li> <li>- No flood lights should be allowed to be installed on the property for the purposes of illuminating the sides of the building at night; and</li> <li>- Perimeter lighting within the playpark area should also be placed in a downward facing manner.</li> </ul>	Monthly	Building maintenance team and Store owners

## 6 IMPLEMENTATION OF THE EMP

All construction activities will be carried out in compliance with the relevant legal requirements and the drilling of beach boreholes to abstract seawater as well as the discharge of brine will be done in accordance with the Water Act, No 54 of 1956. Whilst the construction and operation of the proposed project does not fall under the Marine Resources Act, No. 27 of 2000, it is recognised that as an indirect consequence of the project, some activities may infer to the act – therefore the EMP considers the relevant guidelines and requirements of the act.

No significant impacts are anticipated for the activities that have been identified and management and mitigation measures are in place for potential risks.

This EMP:

- Has been prepared pursuant to a contract with the proponent
- Has been prepared on the basis of information provided to ECC up to September 2020
- Is for the sole use of the proponent, for the sole purpose of an EMP
- Must not be used (1) by any person other than the proponent or (2) for a purpose other than an EMP, and
- Must not be copied without the prior written permission of ECC.

ECC has prepared the EMP on the basis of information provided by the proponent and the environmental impact assessment report