

**PROPOSED TRANSNET FREIGHT RAIL NEW BRIGHTON  
SWARTKOPS SECURITY WALL**

**ENVIRONMENTAL MANAGEMENT PLAN**

**DEA REFERENCE NUMBER: 14/12/16/3/3/1/1299**

Prepared for:

**TRANSNET**



**TRANSNET FREIGHT RAIL**

Prepared by:

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# TRANSNET FREIGHT RAIL PROPOSED SECURITY WALL FINAL ENVIRONMENTAL MANAGEMENT PLAN

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## LIST OF ABBREVIATIONS

DAFF	Dept of Agriculture, Fisheries and Forestry
DEDEAT	Department of Economic Development and Environmental Affairs and Tourism
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
ECO	Environmental Control Officer
EMPr	Environmental Management Plan / Programme
PM	Project Manager

# 1 TRANSNET FREIGHT RAIL PROPOSED SECURITY WALL

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## 1.1 Introduction

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EOH Coastal & Environmental Services (CES) have been appointed by Transnet Freight Rail (TFR) to apply for an Environmental Authorization (EA) in terms of the NEMA EIA Regulations (2010) as well as a Water Use Licence for the proposed construction of a 6 km concrete security wall from the New Brighton yard to Swartkops in Port Elizabeth. This application will entail the production of a Basic Assessment Report and Environmental Management Program

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## 1.2 Environmental Principles

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The following principles should be considered at all times during the pre-construction and construction phase activities:

- The environment is considered to be composed of both biophysical and social components.
- Construction is a disruptive activity and all due consideration must be given to the environment, including the social environment, during the execution of a project to minimise the impact on affected parties.
- Minimisation of areas disturbed by construction activities (i.e. the footprint of the construction area) should minimise many of the construction related environmental impacts of the project and reduce rehabilitation requirements and costs.
- As minimum requirements, all relevant standards relating to international, national, provincial and local legislation, as applicable, shall be adhered to. This includes requirements relating to waste emissions (e.g. hazardous, airborne, liquid and solid), waste disposal practices, noise regulations, road traffic ordinances, etc.
- Every effort should be made to minimise, reclaim and/or recycle “waste” material.
- The environment is held in public trust for the benefit of people, due care must therefore be exercised to ensure that the rights of others with respect to its use are respected. This requires that a risk averse and cautious approach to the management of activities associated with the project be adopted at all times.

## **2 PREPARATION OF ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)**

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Coastal & Environmental Services (CES), established in 1990, is a dynamic, rapidly growing specialist environmental consulting company. We believe that a balance between development and environmental protection can be achieved by skilful, considerate and careful planning. Our extraordinary success rate in achieving this balance in a variety of developments is evidence of our capability.

CES has considerable experience in terrestrial, marine and freshwater ecology, the Social Impact Assessment (SIA) process, state of environment reporting (SOER), Integrated Waste Management Plans (IWMP), Spatial Development Frameworks (SDF), public participation, as well as the management and co-ordination of all aspects of the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes. CES has been active in all of the above fields, and in so doing have made a positive contribution to towards environmental management and sustainable development in the Eastern Cape, South Africa and many other African countries.

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### **2.1 Details of Environmental Practitioner that prepared the EMPr**

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### **2.2 Expertise of Environmental Practitioner that prepared the EMPr**

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Kim holds a BSc degree with majors in Botany and Geography as well as a BSc (Hons) degree in Botany (Terrestrial Ecology) focussing on Environmental Management and GIS systems; both from NMMU. Her honours year focussed on Environmental impact assessments, environmental management and Geographic Information systems. Kim's interests include Environmental impact assessments, Geographic information systems and Ecological Assessments. Kim has conducted a number of Prospecting Right Applications and has been involved in a number of local mining projects. Kim has close to 5 years' experience in the consultancy environment and is currently employed as a Senior Environmental Consultant in the Port Elizabeth office of EOH CES.

### **2.3 Purpose and Structure of the EMPr**

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#### **2.3.1 Purpose**

This environmental management plan (EMPr) is intended to meet the requirements of Section 24N of the National Environmental Management Act (Act 107 of 1998) and the EIA Regulations 2010. It therefore provides:

- Details of project components and activities.
- Descriptions of roles, responsibilities and personnel involved in the construction phase.
- Details of the environmental specifications to be implemented.

### **2.3.2 Structure**

This EMPr is structured so as to provide guidance during the following project phases:

- Planning and design of the security wall.
- Construction of the security wall.
- Operation and maintenance of the security wall.

Should the facility be decommissioned (unlikely to occur at this stage) it is anticipated that the wall will be demolished and all material removed from site. Decommissioning of the project is not specifically addressed here; however, provisions for the formal amendment or modification of the EMPr are included.

### 3 PROJECT DESCRIPTION

#### 3.1 Project Location

The proposed security wall is located in New Brighton, in the Nelson Mandela Bay Municipality of the Eastern Cape Province. The planned wall is approximately 6 km long and forms a loop around the TFR property.



Figure 1: Regional locality of the proposed TFR security wall within the NMBM



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## 3.2 Project Description

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The need for the security wall came about when the Qaqawuli informal settlement began encroaching on TFR's property which not only resulted in financial losses due to theft and vandalism, but also poses a safety threat to dwellers of the informal settlement due to the proximity of the site to railway lines. On occasion, trains may be staged at the yard and during this time the nearby settlement dwellers and by-passers steal goods from these parked trains resulting in financial losses to Transnet. The construction of this wall will to protect and prevent further theft of their customer's good.

Wherever there are informal settlements situated adjacent to railway lines, the areas are considered as hot spots or High Desire Lines. The reason is that people always desire access to the rail reserve, whether it is to take shortcuts to areas or services they want to access, the availability of water, the opportunity for criminal activities or merely because there are areas of open land where they can establish informal housing or trading structures.

Due to the high desire for access to or cross the rail reserve, most types of security walls are not suitable, For example, pre-fabricated walls, steel palisade fences or even concrete palisades are either vandalised (broken through) or removed (stolen). Furthermore, if there is already an existing settlement, it is usually difficult to access these areas from the settlement side of the wall and the only type of wall suitable is where all the construction can be done from the rail reserve side.

In this instance the Hollow Core concrete wall is suitable as it can be poured and cured at the factory and installed on site vs the steel core concrete wall which must be gunited from both sides. The Hollow Core wall is generally resistant to normal vandalism and can last up to approximately 5 years before any major maintenance is required.

The scope of the engineering works includes the construction of a hollow core concrete security wall.. This type of wall is a thick, pre-fabricated reinforced concrete wall. Panel thickness varies from 120-150mm thick depending on the client requirement and wall height can vary from 2.4 – 3m, again depending on client requirement. It is poured and cured at the factory, transported to site and set in upright supports and poured concrete foundations. The panels are placed by crane and cannot be removed by hand due to size and weight.

## **4 CONSTRUCTION EMPR**

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The Department of Environmental Affairs (DEA) requires that an EMPr to guide project implementation be compiled for the construction of the security wall in order to:

- minimise potential environmental damage on site; and
- Effectively manage impacts of the project on the environment.

This section of the EMPr outlines the actions required to protect the natural, social and socio-economic environment during construction.

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### **4.1 Implementation**

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The Construction EMPr provides specifications that the Contractors shall adhere to, in order to minimise adverse environmental impacts and optimise opportunities associated with construction activities. It also outlines the roles and responsibilities of the Developer, the Environmental Control Officer (ECO), the Contractor and the Project Manager which comprise the formal Environmental Management team.

The EMPr shall form the Environmental Specification so that all parties are aware of their environmental responsibilities during construction activities.

In the event of discrepancy with part or parts of the standard specifications or project specifications, this section shall take precedence.

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### **4.2 Roles and Responsibilities during the Construction Phase**

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This section outlines the roles and responsibilities of those involved in the construction process, with the end goal of best meeting objectives of environmental best practice.

#### **4.2.1 The Proponent**

TFR has the ultimate responsibility to ensure the protection of the environment throughout the pre-construction, construction and rehabilitation phases of the proposed development. The proponent will be responsible for:

- Being familiar with the contents of the EMPr.
- Appointing an ECO.
- Making sufficient budget available for implementation of the EMPr including a provisional sum for additional environmental protection measures that may be necessary as construction and rehabilitation proceeds.

- Supporting the Project Manager in enforcing the Environmental Specifications.
- Communicating with all role players in the interests of a co-ordinated effort to protect the environment.
- Provide written notice to the DEA of commencement of construction.
- Ensuring a copy of the Environmental Authorisation is available on site at all times.

#### **4.2.2 Environmental Control Officer**

An ECO should be appointed by the proponent at commencement of the construction phase. The ECO will monitor the implementation of the Construction EMPr. The function of the ECO must be fulfilled by a competent individual with experience in environmental management. The ECO will have the following responsibilities:

- To advise the Project Manager (PM) on the interpretation and enforcement of the Environmental Specifications.
- To supply environmental information.
- To be knowledgeable of the pre-construction state of the environment in order to inform rehabilitation measures stipulated in the EMPr.
- To undertake regular monthly inspections (as a minimum) and submit reports on the Contractor's compliance with the Environmental Specifications; these reports shall be copied to the Project Manager, Project Manager and the DEA.
- To provide on-site environmental guidance.
- To audit the Contractor and Sub-contractors on implementation of the specifications of the EMPr. A monthly audit shall be undertaken and the audit reports should be distributed to The Proponent (TFR), Project Manager, and to the DEA (reporting period will be dependent on authorisation conditions).
- To demarcate particular sensitive areas and pass instructions on work in these particular areas.
- To inform contractors of environmental sensitivities associated with the site (and provide training input where required or necessary).

#### **4.2.3 The Contractor**

The contractor has the responsibility to:

- Comply with the Environmental Specifications contained in this document.
- Be familiar with the EMPr and ensure that the latest version is available on site.
- Be familiar with the Environmental Authorisation, a copy of which must be kept on site.
- Be familiar with any No-Go area and associated restrictions.
- Notify the ECO and PM immediately in the event of any accidental infringements of the Environmental Specifications to enable appropriate remedial action to be taken.

- Ensure environmental awareness among their employees and sub-contractors so that they are fully aware of, understand the need for and comply with the Environmental Specifications of the EMPr.
- Undertake rehabilitation of all areas affected by construction activities to restore them to their original states, as determined by the ECO.
- Undertake the required works within the designated working areas.

#### **4.2.4 The Project Manager**

The Project Manager (PM) is required to:

- Be familiar with the contents of the EMPr.
- Ensure that the Contractor complies to the specifications of the design plan, (which incorporates environmental issues)
- Communicate to the Contractor the advice of the ECO and the contents of the ECO reports and issue site instructions giving effect to the ECO requirements where applicable.
- Where no specific item is provided in the Schedule of Quantities for the actions recommended by the ECO, costing of measures should be undertaken before issuing site instructions.
- Communicate to the ECO, at least 10 working days in advance, any proposed actions, which may have negative impacts on the environment.
- Designate all working areas.
- Communicate to the ECO any infringements of the Environmental Specifications and accompany the ECO during site inspections.
- Discuss with the ECO the application of any penalties and other possible enforcement measures when necessary.
- Maintain a record of complaints from the public and communicate these to the Developer and ECO.
- Facilitate communication between all role-players in the interest of effective Environmental Management.
- Monitor the compliance of the Contractor through the ECO reports.
- Allow for environmental protection works within the project budget.
- Determine the imposition of penalties for infringement of the Environmental Specifications.

#### **4.2.5 Communication and Co-ordination**

It is in the best interest of environmental management that a coordinated effort between all responsible parties be established. Open lines of communication at all times are therefore encouraged.

With open communication the role of the ECO should be a positive one - aimed at being proactive in preventing problems - rather than a negative "policing" role when negative impacts have already occurred.

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## 4.3 Planning and design Environmental Specification

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The Planning and Design Phase involves all preconstruction activities. This includes land negotiations, survey and mapping and design of the infrastructure. The Planning and Design Phase falls within the sole responsibility of TFR.

The following mitigation measures must be considered/ implemented in this phase:

### 4.3.1 Surveyors and Field Work

All field staff involved in the Planning and Design Phase should make use of existing access roads where practical.

### 4.3.2 Additional Authorisations

Additional statutory approvals and authorisations may be necessary in order to commence construction of the project (i.e. Water Use Licence). It is TFR's responsibility to ensure that all such approvals are in place prior to construction commencing.

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## 4.4 Construction Environmental Specification

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### 4.4.1 Site Demarcation

"No Go" areas shall be clearly demarcated to avoid unnecessary disturbance. These areas and any new access tracks are to be clearly defined and demarcated and warning signage erected, prior to commencement of construction.

For the duration of the project, construction is to be restricted to designated working areas. Restriction of construction to designated (with fences or other demarcations) working areas assists in ensuring the limitation of impacts on the environment, and areas which have not been identified for construction.

*Definitions:*

"No Go" areas are often of deep aesthetic, historical and/or environmental value, such as riparian vegetation or ancestral burial sites.

Working areas are those areas necessary for the contractor to complete the required construction, and should be approved by the PM.

### 4.4.2 Site Preparation and Clearing of Vegetation

Site preparation shall be undertaken in accordance with the following parameters:

- 1 Topsoil to a depth of 150 mm is to be removed from those areas where:
  - i. Construction vehicles will be parked in a locked area overnight.

- ii. Hazardous substances will be stored in locked containers.
  - iii. If possible fuel should not be stored on site, vehicles should be refuelled by means of a bowser.
  - iv. If possible concrete must not be mixed on site, but rather be provided by a service provider.
  - v. Construction materials will be stockpiled on designated areas.
- 2 Removed topsoil is to be stockpiled for rehabilitation of these areas on completion of construction.
  - 3 Topsoil to a depth of 150 mm is to be removed from work areas and stored for use in rehabilitation of the site.
  - 4 Work areas must be clearly demarcated during the construction of the proposed security wall. All activities outside these demarcated areas must be strictly prohibited.
  - 5 Clearing of vegetation must be undertaken in accordance with the following parameters:
    - i. Vegetation may only be cleared within demarcated work area boundaries.
    - ii. No vegetation may be cleared from demarcated “No Go” areas, nor may any material, waste or spoil be stored or dumped in such areas.

#### **4.4.3 Stockpiling of Topsoil**

- 1 Topsoil stockpiles should not exceed 1.5 m in height.
- 2 Topsoil and subsoil should not be mixed.
- 3 Stockpiles are to be located within the demarcated construction site or in designated areas as approved by the ECO.
- 4 Topsoil should not be mixed with any other material (e.g. building rubble).
- 5 Any alien invasive species which establish themselves upon stockpiles are to be removed before use of stockpiled material in rehabilitation of the site post-construction.
- 6 Erosion of topsoil stockpiles must be prevented.
- 7 Stockpiled topsoil is to be used for rehabilitation of the site on completion of construction.
- 8 Alien invasive species are to be removed from any area within the construction area and disposed of in a permitted landfill site.
- 9 No driving of vehicles or heavy plant on topsoil stockpiles is permitted.

#### **4.4.4 Cut Material and Subsoil**

- 1 Subsoil, cut material or spoil are to be stockpiled separately from topsoil.
- 2 Cut material which cannot be used on site is to be disposed to an off-site spoil site, which must be identified in consultation with the PM and ECO.

#### **4.4.5 Erosion Prevention**

- 1 The Contractor is to provide a method statement on erosion control showing clearly how cleared surfaces and stormwater will be managed on site during construction and rehabilitation.

- 2 Where necessary, anti-erosion measures shall be implemented.
- 3 Areas where erosion is likely (e.g. steep slopes [gradient > 6%], areas cleared of topsoil, and topsoil stockpiles) should be monitored to allow for timely response in the event of erosion.
- 4 Erosion should be managed or prevented throughout the construction process.
- 5 In the event of erosion the contractor shall be held financially responsible for necessary rehabilitation.

#### **4.4.6 Waste Management**

Appropriate waste management strategies should be adhered to at all times.

##### **(a) Solid Waste Management**

- 1 Scavenger proof waste bins should be provided at regular intervals throughout the site camp including any sub-contractor camps.
- 2 Bins shall be emptied regularly and the accumulated waste disposed of at a recognised disposal site. Documentary confirmation of the location and status of the disposal site to be used must be obtained from the local municipality (municipal manager's office).
- 3 Burning or burying of any waste is not permitted.
- 4 The site is to be checked for litter daily. All litter should be collected regularly and deposited in the waste bins.
- 5 Non-reusable building material is to be treated as waste and disposed of at an appropriately permitted disposal site.
- 6 Cement aggregates should be collected and disposed of at an appropriately permitted disposal site.
- 7 Used cement bags and containers which held hazardous materials or substances are to be collected into a dedicated hazardous waste container/containment area and disposed of appropriately at a registered hazardous waste disposal site.
- 8 Contractors are to provide copies of waste manifests in order to prove legal waste disposal.

##### **(b) Effluent and Stormwater Management**

- 1 Cement mixing and batching plants shall be undertaken at least 100 m away from any water course or natural drainage line. Appropriate measures to prevent runoff escaping from the mixing/batching area must be taken.
- 2 Cement must not be mixed directly on the ground surface and must be mixed on an appropriately lined (impermeable) surface. This should only apply to small quantities of cement and it is recommended by DEDEAT that cement is if possible not mixed on site but rather obtained from a service provider.
- 3 Waste water from batching operations or ready mix trucks shall be discharged into a lined pond provided for this purpose. The pond is to be de-sludged regularly, and the cement residue removed from site and disposed of at an appropriately permitted disposal facility.

- 4 No water contaminated with cement shall be allowed to enter any natural water course or drainage line.
- 5 Project workers are not to use rivers for washing or bathing.
- 6 Grey water is to be disposed of at a licenced WWTW and not on site.
- 7 Pollution of ground and surface water must be avoided.
- 8 Ablution facilities must be available to all workers.
- 9 Where chemical toilets are used at least one toilet per 15 individuals must be available (as per the H&s regulations). At least one toilet should be located within 100 m of the working area.
- 10 Portable/chemical toilets shall be emptied at regular intervals by suitably qualified contractors, according to appropriate health and safety standards.
- 11 No human waste shall be allowed to enter any water courses or natural drainage lines.
- 12 Toilets shall be secured to prevent them blowing over during periods of high winds.
- 13 Toilet paper must be provided at each toilet.
- 14 Separate toilets are to be provided for male and female workers. Sanitary bins to be provided in the female workers' toilet.

#### **4.4.7 Material Use, Handling and Transport**

##### **(a) Fuels and Oils**

- 1 Spills are to be avoided as far as is practically possible. Where spills occur compromised soil/vegetation shall be treated as hazardous waste and disposed of accordingly.
- 2 A spill log in which a record is maintained of the volume, nature, location, date, time and clean up action taken is to be kept on site and updated daily. Spills of greater than 10 liters in volume or which occur in areas where ground or surface water may be affected are to be reported to DEA within 48 hours of their occurrence.
- 3 Equipment for dealing with hazardous waste spills shall be kept on site and be accessible at all times.
- 4 Construction vehicles and heavy plant standing for extended periods of time (e.g. overnight) must have drip trays placed beneath them.
- 5 Construction vehicles to always be parked over drip trays; mechanical plant to be operated in drip trays.
- 6 Fire prevention measures must be taken in the vicinity of vehicles and stored oil and fuels.
- 7 Vehicles and mechanical plant should not be repaired / serviced on site but a service provider in the Metro.

##### **(b) Hazardous Materials**

- 1 Information on all hazardous materials shall be kept on site and available to all. This must include safety information such as how to handle these materials or treat injuries as a result of these materials.



- 2 Hazardous materials must be stored in a contained, stable and safe environment with relevant labels placed on storage containers and lids firmly applied to prevent spillage.
- 3 Storage facility is to comply with relevant safety and hazardous material regulations.
- 4 Staff training is to be provided for all those handling and working with hazardous materials.

(c) Mechanical and Transport Equipment

- 1 Topsoil and vegetation to be removed in areas designated for storage, and stockpiled appropriately (refer to sections 4.4.2 and 4.4.3 of this EMPr).
- 2 Drip trays to be used when refuelling or repairing equipment to prevent soil contamination.
- 3 Disposal of contents of drip trays to be in accordance with relevant hazardous materials disposal requirements.
- 4 Storage area should be located within the demarcated site camp boundary.
- 5 Repair or servicing of machinery and vehicles are to be undertaken in a designated service area at the site camp. The service area is to be:
  - i. Level.
  - ii. Surfaced with an appropriate impermeable surface.
  - iii. Equipped with drip trays and a basic spill cleanup kit.

#### 4.4.8 Construction Vehicles and Access Roads

Construction vehicles are to be permitted only within the demarcated construction site or on existing roads. No-go areas are to be avoided.

The Contractor must implement appropriate mitigation measures, which should include the following:

- 1 Where it is necessary for construction vehicles to use off-site public roads such use is to comply with the relevant road traffic legislation. This includes implementation of:
  - i. "Stop-go" controls at public road access points.
  - ii. Warning signs.
  - iii. Safety barriers.
- 2 Construction vehicles moving through residential areas shall maintain a speed of 40 km per hour or less.
- 3 Construction and delivery vehicles moving on gravel roads outside residential areas shall travel at speeds of no more than 60 km/hour in order to minimize dust.
- 4 Repair of roads damaged by construction vehicles will be at the cost of the contractor/proponent.
- 5 Material used in road construction is to be sourced from appropriately permitted sources. Proof of provenance, e.g. waybills, is to be maintained in a 'receiving goods' register.

#### **4.4.9 Noise and Dust Control**

- 1 Operations in the vicinity of private residences or public meeting places shall be carried out at reasonable hours and work on Sundays and public holidays is to be avoided. Work shall not take place outside the hours of 06:00 to 18:00 during the week and 06:00 to 13:00 on a Saturday.
- 2 Contractor to provide method statement of site specific dust control measures. Trucks are to be covered with tarpaulins at all times.
- 3 Dust suppression can be undertaken by watering relevant areas. Watering of steep slopes should be conducted in moderation and with an erosion monitoring system in place.
- 4 Stockpiles are to be covered with high density shade cloth or other similar material, appropriately pegged down, to assist in suppressing dust.
- 5 A contact telephone number should be displayed at a conspicuous place for complaints to be lodged after hours.

#### **4.4.10 Work Stoppage**

The PM and ECO shall have the right to order work to be stopped in the event of significant infringements of the Project Environmental Specifications, until the situation is rectified in compliance with the specifications.

#### **4.4.11 Heritage Resources**

Where heritage resources are discovered (e.g. burial sites, archaeological and palaeontological artefacts) during construction the following will apply:

- 1 Work at the point of the discovery is to cease, and may not recommence until such time as guidance from the South African Heritage Resources Agency (SAHRA) has been received.
- 2 The point of discovery is to be clearly demarcated.
- 3 The SAHRA and ECPHRA is to be informed within 24 hours of the discovery.

#### **4.4.12 Social disruption**

- 1 The Contractor's employees shall in no way be a nuisance to nearby residents. Any complaints received by the PM will be addressed and the relevant persons will be suspended from the project.
- 2 The Contractor shall give at least seven days' (7) notice to the residents in the vicinity of the construction activities of his intention to begin construction activities in their area. The PM may request a representative to be available to discuss issues raised by residents and make information available to them on construction activities.
- 3 The Contractor shall ensure that access to property is not unreasonably disrupted.
- 4 A community complaints register is to be maintained on site.

#### **4.4.13 Protection of Public**

- 1 The Contractor shall be responsible for the protection of the public, and public property, from any dangers associated with construction activities, and for the safe and easy passage of pedestrians and traffic in areas affected by project activities.
- 2 Any excavated area, spoil sites and other obstructions or excavations shall be suitably barricaded and/or demarcated with hazard tape.
- 3 The Contractor should ensure that hazards and warning signs are erected at problem sites, and that they are maintained.
- 4 The contractor shall have an emergency phone numbers/ contact details list displayed at the contractor's camp in an easily visible area.

#### **4.4.14 Fire Prevention**

- 1 A fire officer is to be appointed by the contractor.
- 2 "No-smoking" signs to be placed in areas used for storage of oil and fuel.
- 3 Basic fire fighting equipment shall be readily available on site.
- 4 Employees shall be made aware of the procedures in the event of a fire.
- 5 Smoking shall only be permitted in designated smoking areas. Fire extinguishers will be available in these areas at all times.

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## **4.5 Monitoring and Auditing**

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### **4.5.1 Monitoring and Time Frames**

- 1 The PM, supported by the ECO, is to monitor the Contractor's compliance with the specifications set out in the EMPr.
- 2 Alien invasive species establishment on site should be monitored by the Developer for 3 months after completion of construction.

### **4.5.2 Auditing and Reporting Requirements**

- 1 Monthly audits of compliance with the EMPr are to be undertaken during the construction period by the ECO.
- 2 On completion of construction and rehabilitation a close out audit is to be undertaken by the ECO in conjunction with the PM.
- 3 Audit reports are to be submitted to the Developer, PM and DEA within 10 days of each audit.

## **5 OPERATIONAL PHASE EMPR**

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The DEA requires that an EMPr to guide project implementation be compiled for the construction and operation of the security wall in order to effectively manage impacts of the project on the environment.

This section of the EMPr outlines the actions required to protect the natural, social and socio-economic environment during operation of the project.

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### **5.1 Implementation**

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The Operational Phase EMPr provides guidelines that the Project Owner (Transnet Freight Rail) must adhere to.

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### **5.2 Roles and Responsibilities**

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This section outlines the roles and responsibilities of those involved in the operational phase, with the end goal of best meeting conditions of environmental authorisation, objectives of environmental sustainability and best practice.

#### **5.2.1 Project Owner**

The project owner is the holder of the environmental authorisation, or anyone to whom ownership of the project is transferred.

TFR Management has the ultimate responsibility to ensure the protection of the environment throughout the operational phase of the proposed development. TFR management is responsible for:

- 1 Being familiar with the contents of the EMPr.
- 2 Ensuring that an appropriate surveillance programme for the regular monitoring of ground- and surface water quality is implemented
- 3 Making sufficient budget available for implementation and monitoring of the Operational Phase EMPr.
- 4 Communicating with all role players in the interests of a co-ordinated effort to protect the environment.
- 5 Ensuring a copy of the Environmental Authorisation, a copy of this EMPr and any amendments to either document is suitably filed in a formal document storage and retrieval system.

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### 5.3 Operational Phase Environmental Specification

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Once built and commissioned, periodic maintenance will be undertaken repairing faults, and broken infrastructure.

During this phase it is essential that all maintenance personnel undertake general best practice environmental management:

This includes:

- Keeping to existing access roads and no “open field” driving;
- No littering;
- No disturbance of surface water features; and
- Closing gates and general respect for property.

## **6 AMENDMENTS**

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### **6.1.1 Construction EMPr**

The Construction EMPr may be amended and updated once the method statements have been confirmed and approved by the PM and ECO. Any proposed amendments to the Construction EMPr, as may be identified by the Contractor, must be confirmed with the ECO and Project Manager. Amendments proposed by the ECO or Project manager must be confirmed with the Contractor. All proposed amendments must be discussed with the DEA prior to implementation, and a formal application for amendment lodged where required.

### **6.1.2 Operational EMPr**

The Operational Phase EMPr may be reviewed, amended and updated during the lifetime of the project. Such review, amendment or updating may be initiated by the DEA, the NMBM, TFR or any combination of these parties. Proposed amendments or updates to the Operational Phase EMPr may only be implemented with the written approval of the DEA or such responsible environmental authority as may be designated in terms of prevailing environmental legislation