

## APPENDIX F: IMPACT STATEMENT

The assessment of impacts will largely be based on the Department of Environmental Affairs and Tourism's (1998) Guideline Document: Environmental Impact Assessment Regulations. The assessment will consider impacts arising from the proposed decommissioning activities of the project both before and after the implementation of appropriate mitigation measures.

The impacts will be assessed according to the criteria outlined in this section. Each issue is ranked according to extent, duration, magnitude (intensity) and probability. From these criteria, a significance rating is obtained, the method and formula is described below. Where possible, mitigation recommendations have been made and are presented in tabular form.

The criteria given in the tables below will be used to conduct the evaluation. The nature of each impact was to be assessed and described in relation to the extent, duration, intensity, significance and probability of occurrence attached to it.

**Table 1: Methodology Used in determining the significance of potential environmental impacts**

### Status of Impact

The impacts are assessed as either having a:  
negative effect (i.e. at a `cost' to the environment),  
positive effect (i.e. a `benefit' to the environment), or  
Neutral effect on the environment.

### Extent of the Impact

- (1) Site (site only),
- (2) Local (site boundary and immediate surrounds ),
- (3) Regional (within the City of Johannesburg),
- (4) National, or
- (5) International.

### Duration of the Impact

- The length that the impact will last for is described as either:
- (1) immediate (<1 year)
  - (2) short term (1-5 years),
  - (3) medium term (5-15 years),
  - (4) long term (ceases after the operational life span of the project),
  - (5) Permanent.

### Magnitude of the Impact

- The intensity or severity of the impacts is indicated as either:
- (0) none,
  - (2) Minor,
  - (4) Low,
  - (6) Moderate (environmental functions altered but continue),
  - (8) High (environmental functions temporarily cease), or
  - (10) Very high / Unsure (environmental functions permanently cease).

### Probability of Occurrence

- The likelihood of the impact actually occurring is indicated as either:
- (0) None (the impact will not occur),
  - (1) improbable (probability very low due to design or experience)

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- (2) low probability (unlikely to occur),
- (3) medium probability (distinct probability that the impact will occur),
- (4) high probability (most likely to occur), or
- (5) Definite.

### Significance of the Impact

Based on the information contained in the points above, the potential impacts are assigned a significance rating (**S**). This rating is formulated by adding the sum of the numbers assigned to extent (**E**), duration (**D**) and magnitude (**M**) and multiplying this sum by the probability (**P**) of the impact.

$$S=(E+D+M)P$$

### The significance ratings are given below

- (<30) low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
- (30-60) medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
- (>60) high (i.e. where the impact must have an influence on the decision process to develop in the area).

The impacts of the proposed project are assessed and rated as follows:

### IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Impacts Resulting from the Planning and Design Phase							
<b>Direct Impacts:</b>							
<b><u>Employment Creation</u></b>							
The planning and design of the development requires input from various individuals, resulting in employment opportunities for such persons. This employment would include both direct (e.g. Environmental Consultants, Engineers, Project Managers, Planners, etc.) and indirect (e.g. reviewing and commenting authorities such as the local authority planning authorities and the environmental authorities). The extent and magnitude of this impact is relatively low and short term in duration compared to the other economic impacts, and is typically restricted to a limited number of professionals. The significance is rated as medium and no mitigations were identified for this project.							
Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment Creation	No	Positive	3	2	8	4	52 = Medium
	Yes	N/A	N/A	N/A	N/A	N/A	
Corrective Actions	<ul style="list-style-type: none"> <li>• No mitigation measures have been identified.</li> </ul>						
<b>Indirect Impacts:</b>							

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None Identified.

### **Cumulative Impacts:**

No cumulative impacts were identified.

### Alternative 1

#### Impacts Resulting from the Construction Phase

### **Direct Impacts:**

#### **Soils and erosion**

The loss of topsoil in South Africa is a national concern and thus erosion control should be taken seriously. Soil erosion may occur during the construction phase due to:

- Excavations particularly on steep slopes;
- Ineffective storm water management;
- Excessive use of gravel roads; and
- Use of heavy machinery or vehicles.

Construction may lead to the compaction of disturbed soils and exposure of soil to environmental factors increases the likelihood of erosion. Compacted soils will erode more quickly than natural soils. If adequate soil erosion measures are implemented during the construction phase of the proposed activity, this impact can be deemed to be of low significance. Where soils are highly erodible, adequate measures must be implemented to prevent undue soil erosion.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Soils and erosion	No	Negative	2	2	4	4	32 Medium
	Yes	Negative	1	1	2	3	12 Low
Corrective Actions	<ul style="list-style-type: none"> <li>• Implementation of effective erosion measures must be put in place to reduce the water velocity.</li> <li>• Soil must be stabilised in order to prevent the resulting wash downs into any water resource and where possible rehabilitation of the disturbed area must be done concurrently with the construction activity.</li> <li>• A storm water management plan and proper storm water management measures must be developed and implemented to prevent pollution runoff.</li> <li>• Stockpiles should not be higher than 2 meters.</li> <li>• Monitoring of disturbed areas is essential in order to combat and mitigate alien encroachment.</li> <li>• Excavation must not be left open for longer than four weeks.</li> <li>• Strict use of internal roads for heavy machinery.</li> <li>• Control of vegetation clearing and exposure of soil.</li> <li>•</li> </ul>						

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### Impact on Traffic

During the construction phase increased heavy vehicle traffic should be expected. Without management, such increased traffic loads may negatively impact existing traffic flow. Further, construction vehicles may decrease road safety for other road users and uncontrolled movement of construction vehicles may result in undue impacts to the environment through vegetation and habitat destruction. Considering that the proposed development is within the residential area; and along the existing railway line, this impact medium without mitigation.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Traffic	No	Negative	3	2	6	5	Medium
	Yes	Negative	2	2	4	3	24 Low
Corrective Actions	<ul style="list-style-type: none"> <li>The delivery of construction material and equipment should be limited to hours outside peak traffic times;</li> <li>A site access Method Statement must be prepared and approved by the relevant parties.</li> <li>Access roads must be clearly marked.</li> <li>Construction and delivery vehicles must comply with all traffic laws and bylaws.</li> <li>A speed limit of 30km per hour must be maintained.</li> </ul>						

### Visual Impact

The proposed activity will certainly change the visual character of the area as the development fall within the residential area, the impact can be considered definite, short term, local in extent and low in insignificant as there is already existing railway line

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Visual character of the area.	No	Negative	2	2	6	4	40 = Medium
	Yes	Negative	2	1	4	3	21= Low
Corrective Actions	<ul style="list-style-type: none"> <li>Keep the construction sites and camps neat, clean and organised; and</li> <li>Screen the construction camp and lay-down yards by enclosing the entire area with a dark green or black shade cloth of no less than 2m height.</li> </ul>						

### Air pollution

Potential air pollutant during construction may include dust emanating from site preparation and excavations as well as exhaust fumes from construction vehicles. Given the nature and magnitude of the proposed development and its

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proximity to communities, it is anticipated that if not mitigated the impact will be local in extent, short term, and of medium significance and this can be reduced to low with proper mitigation.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Air pollution	No	Negative	2	2	6	4	40 = Medium
	Yes	Negative	2	1	2	3	15 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Unnecessary clearing of vegetation must be avoided to limit dust generation. Considering water scarcity in the area; alternative dust suppression techniques must be implemented or alternatively use grey water for dampening of surface.</li> <li>All construction staff must wear their dust masks whenever necessary</li> <li>Vehicles travelling on site must maintain 30km/hr. speed limit.</li> <li>Burning of any form of waste material on site is not allowed.</li> </ul>						

### Surface and groundwater pollution

During construction there is a risk that construction material may pollute the surface and/or ground water on site. Substances such as cement residue, bio fuels, and paints must be adequately controlled. Impacts on wetlands may include changing the quantity and fluctuation as well as the amount of sediment entering the water resource and associated change in turbidity. In addition exposed surfaces during construction would provide a source of sediments to be taken up by storm water and resulting in down-stream sedimentation of water resources. This impact is of low in significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Surface and ground water pollution	No	Negative	2	2	4	4	32= Low
	Yes	Negative	1	1	4	3	18 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Construction must be restricted to the dryer winter months where possible.</li> <li>A temporary fence or demarcation must be erected around No-Go Areas prior to any construction taking place as part of the contractor planning phase when compiling work method statements to prevent access to the adjacent portions of the watercourse.</li> <li>Effective storm water management should be a priority during both construction and operational phase. This should be monitored as part of the EMP.</li> <li>No activities should occur within a 100m or within a 1:100 year flood line whichever is greatest without approval from DWS.</li> <li>Care must be taken during construction to prevent leaks and spillage of materials that may</li> </ul>						

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- detrimentally affect water quality (especially fuels and chemicals).
- Care must be taken to avoid destruction of water courses.
- Adequate measures must be put in place to prevent runoff of construction debris to nearby water bodies.
- Fuel storage must be in accordance with the requirements of the OSHACT.
- During refuelling, drip trays must be placed under the machinery or vehicle to prevent contamination of soil in case of spillages.

### Waste Management

During the construction phase there will be a variety of waste material produced. The contractors must adhere to all proposed measures and provide adequate waste skips and bins around the site. Waste must be regularly removed from site and disposed of at appropriate waste disposal sites. The impact will be negative, site specific, low in significance and will last for the duration of the construction and rehabilitation phases.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Waste generation and management	No	Negative	2	2	4	4	32 = Medium
	Yes	Negative	1	1	2	3	12 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>No waste will be buried on site or incorporated into the foundation trenches.</li> <li>Contractor must provide adequate waste skips and bins around the site</li> <li>The work force must be encouraged to sort waste into recyclable and non-recyclable waste.</li> <li>No burning of waste will be allowed on site.</li> <li>The storage of hazardous waste must be in accordance with the Hazardous Act and associated Regulations.</li> <li>Waste must be regularly removed from site and disposed of at a registered waste disposal facility.</li> <li>Waste disposal certificates must be kept in file on site at all times.</li> </ul>						

### Fauna

The development of the railway loop will not generate any significance impacts on fauna as the site is already disturbed. No species of conservation concern were observed in the development footprint and its immediate vicinity, as the site is within the residential area. Consequently, it is highly unlikely that any fauna would be significantly impacted by the development

Issue	Corrective	Impact rating criteria	Significance
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	<u>measures</u>	<u>Nature</u>	<u>Extent</u>	<u>Duration</u>	<u>Magnitude</u>	<u>Probability</u>	
Fauna /	<u>No</u>	<u>Negative</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>4</u>	<u>16= Low</u>
Avifauna	<u>Yes</u>	<u>Negative</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>12 = Low</u>
<b><u>Corrective Actions</u></b>	<ul style="list-style-type: none"> <li>• During construction all vehicles should adhere to demarcated tracks or roads and the speed limit should not exceed 30km/h on larger roads and should be 20-30km/h on smaller access tracks.</li> <li>• All construction staff should undergo environmental induction before construction commences in order to raise awareness and reduce potential faunal impacts.</li> <li>• All spills of hazardous material should be cleared in the appropriate manner according to the nature and identity of the spill and all contaminated soil removed from the site.</li> <li>•</li> <li>• All personnel must remain within a demarcated construction area and may not wander into the veld.</li> <li>• Toilets should be provided on-site during construction.</li> <li>• \</li> <li>• No pets should be allowed on site.</li> </ul>						

### **Flora**

The Northam loop is within an urban or transformed environment. It is only the northern limit of the loop that will have an impact on natural vegetation. The site is dominated by weedy and alien species with some tolerant indigenous grasses or trees persisting along the sides of the existing track and railway servitude

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on flora.	No	Negative	1	4	2	4	28 =Low
	Yes	Negative	1	4	1	2	12 = Low
<b><u>Corrective Actions</u></b>	<ul style="list-style-type: none"> <li>• The footprint should be restricted as far as possible to existing transformed areas.</li> <li>• Avoid development within the high sensitivity parts of the site.</li> <li>• The development footprint should be kept to a minimum and natural vegetation should be encouraged to return in disturbed areas.</li> <li>• Vegetation clearing should be kept minimal and only area to be used for construction should be cleared.</li> <li>• Where soil disturbance is required for the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed. Areas to be cleared should be demarcated and only those individuals of plant species directly within the foot print should be cleared/ removed.</li> <li>• Soil disturbance and vegetation clearing should be kept to minimum.</li> <li>• Cleared areas that are not going to be used should be re-vegetated with seed of locally-collected seed of indigenous species.</li> <li>• Regular monitoring to ensure that alien plants are not increasing as a result of the</li> </ul>						

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- disturbance that has taken place.
- The area where construction will take place should be marked off with a fence or any other form of demarcation in order to keep vegetation destruction to minimum and confined to a single area.
  - No fires should be allowed on site.
  - A rehabilitation plan should be in place and implemented.

### **Noise pollution**

Noise generating activities on site include the following:

- Earthworks;
- Delivery of building material;
- Civil construction activities;
- Earth drilling;
- TLB activities;
- Foundations and pouring of concrete.

The railway line is in close proximity to schools, commercial and residential settlements therefore an increase in noise is expected during construction as these activities will generate noise of medium significance without mitigation. Provided that the mitigations provided are adhered to, the noise impact will be manageable and of low significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Noise pollution	No	Negative	2	2	6	3	40 = Medium
	Yes	Negative	2	2	4	2	16 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>• Equipment and/or machinery which will be used must comply with the manufacturer's specifications on acceptable noise levels.</li> <li>• Environmental noise survey to be done on a quarterly basis.</li> <li>• All vehicles used during construction are properly maintained.</li> <li>• The landowner should be notified in advance of construction schedules.</li> <li>• Working hours must be restricted to daytime only (7am – 5pm).</li> <li>• Equipment with lower sound power levels which is in accordance with the Health and Safety Regulations should be used.</li> </ul>						

### **Fire hazards**

Onsite storage of fuel and other flammable solvents, during construction increase the risk of fire. It is anticipated that uncontrolled fires on site could cause damage to infrastructure and the biophysical environment and impact on the social environment. The recommended mitigation measures should be implemented to reduce the significance of the potential impact

Issue	Corrective	Impact rating criteria	Significance
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	measures	Nature	Extent	Duration	Magnitude	Probability	
Fire hazards	No	Negative	2	2	4	3	24 = Low
	Yes	Negative	1	1	4	2	12 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Areas where flammable substances are kept must have proper warning signs on display (Highly flammable, No smoking etc.) to warn personnel on site of risk associated with such areas.</li> <li>No burning of waste or cooking will be allowed on site.</li> <li>Contracting personnel must be well versed in the relevant existing fire and safety management procedures and activities on site.</li> <li>Designate a site safety official and ensure that personnel are adequately trained regarding fire hazards and procedures.</li> </ul>						

### Impact on cultural and heritage resources

The existing railway line is older than 60 years and therefore considered to be a structure of heritage/historic significance. However, no other sites or archaeological materials were identified on the proposed site. The potential impact of the proposed development on heritage is considered to be low in significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Negative	1	1	4	4	24 =Low
	Yes	Negative	1	1		3	18 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Should any other the heritage or archaeological artefacts be discovered during construction or operational phase, all works must be stopped at the affected area and SAHRA must be contacted.</li> <li>The requirements of the legislation pertaining to the identified structures must be fully adhered to i.e. the necessary permits must be applied for prior construction commencement</li> </ul>						

### Social Environment

The construction phase may have an impact on the surrounding land owner if not properly managed. It could result in the disturbance of landowners due to construction related activities. Other social related issues may include the following:

- As a result of perceptions around job creation, increased expectations around employment opportunities may be created
- Influx as a result of expectations around job and supply chain opportunities, resulting in pressure on land, social services, relationships and other social infrastructure.
- Access to private businesses site will be made easier, resulting in potential criminal intrusion, including theft, on

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private area

These social risks are of medium significance, however with proper mitigation they can be reduced to low.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Social Environment	No	Negative	2	2	6	4	40 = Medium
	Yes	Negative	2	1	2	3	15 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Liaison with landowners prior to entering their properties;</li> <li>Residents must be kept abreast with the on-going activities.</li> <li>A land owner liaison officer must be appointed to manage and address societal issues accordingly.</li> <li>Access to the construction site should be controlled;</li> <li>Warning signs should be placed on site to make people aware of the dangers;</li> <li>No-go areas should be clearly demarcated, marked and visible;</li> <li>Landowners must be kept abreast with movements in and around their property; and</li> <li>Health and Safety standards and guidelines must be implemented.</li> </ul>						

Indirect Impacts:

None Identified

### **Cumulative Impacts:**

### **Habitat Destruction**

The proposed development is located within residential area, transformed and agricultural land, therefore there will be no major impacts that are likely to be associated with the development of any of the proposed loop.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Habitat destruction	No	Negative	1	4	1	2	12 = Low
	Yes	Negative	1	4	1	1	6 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>The footprint should be restricted as far as possible to existing transformed areas.</li> <li>Avoid development within the High sensitivity parts of the site.</li> <li>The development footprint should be kept to a minimum and natural vegetation should be encouraged to return in disturbed areas.</li> <li>Avoid impact to potential corridors such as the riparian corridors associated with the larger drainage lines within the area.</li> </ul>						

### **Alien Species Invasion**

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Construction areas within the watercourses along the proposed servitude can experience an increased invasion if mitigation is not implemented or implemented correctly.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Alien Species Invasion	No	Negative	2	2	2	4	24 = Medium
	Yes	Negative	1	2	2	3	15 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Monitor the establishment of alien invasive species within the areas affected by the construction and maintenance and take immediate corrective action where invasive species are observed to establish</li> <li>Alien species (including their seedlings and saplings) identified within the study area should be removed (manually preferably) to prevent their spreading.</li> </ul>						

### Fauna and Avifauna

The development of the railway loop in close proximity to the existing railway line will increase the cumulative impact of the proposed development. In addition to the proposed crossing loop extensions, residential and industrial activities feature prominently both within the impact zone and the broader study area and are a significant source of existing disturbance. The species that have persisted have undoubtedly developed a tolerance for the current levels of disturbance and are likely to persist within the broader area despite the development of the proposed crossing loop extensions.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Fauna / Avifauna	No	Negative	2	4	8	4	56 = Medium
	Yes	Negative	2	4	6	2	24 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>The boundaries of the development footprint areas are to be clearly demarcated and it must be ensured that all activities remain within the demarcated footprint area.</li> </ul>						

### Socio-Economic Impact

This phase will result in a positive socio-economic impact as the demand for equipment, building material and labour will increase. Secondary service provision such as food supply, toilet hire, equipment maintenance etc. would also stimulate the local economy during the construction phase. This is a positive impact of a short duration.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Socioecono	No	Positive	3	2	8	4	52 = Medium

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mic	Yes	N/A	N/A	N/A	N/A	N/A	
Corrective Actions	<ul style="list-style-type: none"> <li>Contractors should by all means practise the localisation matrix while seeking for construction equipment or building materials.</li> <li>For minimal jobs, the appointed contractor should by all means consider the local residents for jobs that do not need any skill transfer.</li> </ul>						

### NO GO ALTERNATIVE

#### *Direct Impacts:*

#### **Socio-economic**

Should the proposed development not proceed, this implies that none of the identified benefits of the proposed project will be realised. including job opportunities

Given the socio-economic benefits that far outweighs the negative impacts it is recommended that the proposed development proceed and all recommendations and mitigation measures be adhered to .

#### **Physical Environment**

A positive environmental impact will occur as the area– will remain intact and not be disturbed by the proposed development i.e. all negative impacts identified will not occur.

#### *Indirect Impacts:*

#### **Business/Employment Opportunities**

Local suppliers and Contractor will not benefit from the business opportunities and job creation relating to construction phase of the project.

### IMPACTS ASSOCIATED WITH THE OPERATIONAL PHASE

#### Alternative 1

Impacts Associated with the Operational Phase							
<i>Direct Impacts:</i>							
<b><u>Socio-economic</u></b>							
The operational phase of the proposed development will have significant long term positive socio-economic impacts. Transnet will be able to increase the coal export and thereby increasing the socio-economic value to the country. This is a positive impact of national significance.							
Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	

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Socio-economic	No	Positive	3	4	8	5	75 = High
Corrective Actions	<ul style="list-style-type: none"> <li>Regular maintenance of the facility should be done continuously to ensure uninterrupted supply of coal.</li> </ul>						

### **Employment creation**

The employment opportunities during the operational phase will arise as a result of the actual maintenance work required to keep the facility running. This impact is anticipated to be positive and medium in significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
employment creation	No	Positive	3	4	6	4	52= Medium
	N/A						
Corrective Actions	<ul style="list-style-type: none"> <li>No mitigation</li> </ul>						

### **Noise**

The following activities are associated with the operational phase of the project:

- Trains in motion;
- Trains stationary at the stop overs;and
- Maintenance activities at the different sites.

The noise impact during the operational phase will be long term and of low significance with proper mitigation

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Noise	No	Negative	3	4	6	4	52= Medium
	Yes	Negative	2	4	4	3	30 =Low
Corrective Actions	<ul style="list-style-type: none"> <li>Annual environmental noise survey to be carried out at the residential areas and at the boundary of the railway loops.</li> <li>Well serviced equipment to be used on site.</li> </ul>						

**Indirect Impacts:** None identified.

**Cumulative Impacts:** None identified.

### **No-go alternative**

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**Direct Impacts:** None of the impacts identified for the proposed activity will occur if the proposed activity does not proceed.

**Indirect Impacts:** None identified

**Cumulative Impacts:** None identified

### IMPACTS ASSOCIATED WITH THE DECOMMISSIONING PHASE

#### Impacts Associated with the Decommissioning Phase

At present it is not anticipated that the proposed infrastructure will be decommissioned. On-going maintenance and upgrades, where necessary will be carried out. In the unlikely event that decommissioning is necessary it is recommended that the potential impacts identified below are reviewed and a detailed decommissioning strategy and rehabilitation plan is prepared and implemented

#### **Direct Impacts**

#### Noise

The following activities are associated with the decommissioning phase:

- Back fill of the railway corridor, removal of rail road and stones;
- Planting of grass and vegetation at the rehabilitated areas; and
- Removal of infra-structure.

The noise impact will be similar to construction noise impacts.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Waste	No	Negative	3	2	6	3	44 = Medium
	Yes	Negative	3	2	4	2	18 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>• Equipment and/or machinery which will be used must comply with the manufacturer's specifications on acceptable noise levels.</li> </ul>						

#### Waste

The decommissioning of the proposed development will contribute to large amounts of waste material. This waste material should be disposed of in an appropriate manner. Further, the decommissioning will contribute to portions of bare soil being exposed to erosion if not rehabilitated properly.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	

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Waste	No	Negative	2	1	6	4	36 = Medium
	Yes	Negative	1	1	4	3	18 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Waste must be regularly removed from site and disposed of at a registered waste disposal facility.</li> <li>An appropriate rehabilitation plan should be in place.</li> <li>No waste will be buried on site or incorporated into the foundation trenches.</li> <li>No burning of waste will be allowed on site.</li> </ul> <p>The work force must be encouraged to sort waste into recyclable and non-recyclable waste.</p>						

### Dust generation

Decommissioning of the facility and other infrastructure may lead to an increased amount of airborne particles in the local atmosphere as the infrastructure is dismantled and transported to the disposal site. The significance of this impact will be low.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Dust Generation	No	Negative	2	1	4	3	21 = Low
	Yes	Negative	1	1	2	2	8 = Low
Corrective Actions	<ul style="list-style-type: none"> <li>Use of dust suppression techniques to reduce the dust.</li> <li>Leave the foundations of the structures intact</li> </ul>						

**Indirect Impacts:** None Identified.

**Cumulative Impacts:** None identified.

### No-go alternative

**Direct Impacts:** None of the impacts identified for the proposed activity will occur.

**Indirect Impacts:** None identified

**Cumulative Impacts:** None identified