# APPENDIX F

# ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN Section 3

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## **1 LEGAL REQUIREMENTS**

The table below provides a list of permit and legal requirements to be met during the construction phase, and to be considered during the planning phase of the project. Relevant instructions are included under the various phases.

THEME	LEGAL INSTRUMENT	MANAGEMENT REQUIREMENTS	CONTACT PERSON
Archaeology	National Heritage Act 27 of 2004	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.	Rev Salomon April Tel: (061) 244 375/ 385/594
Environmental	Environmental Management Act 7 of 2007 EIA Regulations (EIAR) GN 57/2007 (GG 3812)	The amendment, transfer or renewal (after three years) of the Environmental Clearance Certificate (EIAR s19 & 20).	Ms Saima Angula Tel: 061 284 2751
Forestry	Forest Act 12 of 2001 Nature Conservation Ordinance 4 of 1975	<ul> <li>Protected tree species and any vegetation within 100 m from a watercourse may not be removed without a permit.</li> <li>A Harvesting Permit is required if wood is to be collected (harvested) for use as fuel.</li> <li>Protected tree species to be removed require a permit.</li> </ul>	Vincent Louw – Deputy Director of Forestry 0612087327
Labour	Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.	Labour Law Advice: Tel: 061 309 957
Water	Water Resources Management Act 13 of 2013	Water licences are required for water abstraction and use (s44), unless obtained from the City of Windhoek.	
	Windhoek Town Planning Scheme	Sections 26 and 29 (no permits, but restrictions incorporated into this ESMP). City of Windhoek Drought Response Plan	Grazy Tshipo 264 61 290 2373

Table 1: Relevant legislated permit requirements

# 2 PLANNING AND DESIGN PHASE

Table 2: Management requirements for the Planning and Design phase

ASPECT	MANAGEMENT REQUIREMENT
Tender documents	• Ensure that this ESMP is included in all construction contracts. Communicate specific details to the tenderers, to ensure they are fully aware of specific restrictions, e.g. construction camps outside of groundwater protection zone, etc.
Socio-economic study and strategy	<ul> <li>etc.</li> <li>Review the EIA and ESMP and specialist socio-economic study and update the socio-economic findings.</li> <li>Define the arrangements with the workforce to be employed on the project, HIV/AIDS, health and gender dynamics at the time of project planning. Adapt and specify the terms to address these issues on the project.</li> <li>Review and refine the socio-economic impact assessment related to the bypass.</li> <li>Consider and expand on the following miltigation strategy for the bypass: <ul> <li>Devise a strategy with the Rehoboth Town Council to determine a strategy and vision for the town, with the following guidelines:</li> <li>Active leadership and planning on the part of the Rehoboth Town Council.</li> <li>Increased signage on the new route indicating the variety of shops and services in the bypassed town.</li> <li>Ensure there is good access to Rehoboth from the bypass to still benefit from the businesses there.</li> <li>Consider land use changes along the bypass that would facilitate new opportunities. Offer these opportunities to those businesses who may have the greatest losses due to the bypass.</li> <li>Implement an active communication and management process on the part of the community and the town council during the design -to-implementation stage.</li> <li>Businesses that are most likely to be affected can be encouraged to plan early for the bypass. Businesses may choose to change their product, market their local community, relocate or change their product, market their local community, relocate or change their guards and logging eatures, peatifying the streets and squares, planting schemes, providing good parking, etc.</li> <li>The community and town council should have a vision for how the bypass will be integrated into the local environment.</li> </ul></li></ul>
	additional business and investment.

	<ul> <li>The Town council should consider additional economic development staff.</li> <li>Work with Government to upgrade the tourism attractions in the town and market these well. Create Rehoboth-specific festivals, markets, etc. which draw through-traffic to the town.</li> </ul>
Survey	• During the survey, identify all mature trees, particularly Camel Thorn, Sweet Thorn, Worm Cure False Thorn, and Shepherds Tree. Mark them on the plans and consider which may be retained. Of particular importance is Camel Thorn. Individual species in the road verge should be considered, whether removal is absolutely necessary for sigh distance purposes. Mark those to be removed clearly.
Design	Consider what can be done from an architectural and landscape, rehabilitation and architectural point of view at the entrance to Rehoboth, and the cutting at Langberg (if any).
Alignment/groundwater protection	Consider the foundations of the bridge at the Oanob River. Design to ensure 100% through flow of the water. (See the Specialist hydrological Investigation of the EIA, Namib Hydrosearch, 2016).
Materials investigation.	All borrow pits and quarries are to be subjected to a brief environmental assessment and environmental limits compiled for each. White Rock is a no- go area (Appendix A). No sand mining is allowed in the Oanob River. New quarries require EIA separately as they are a listed activity according to the Environmental Management Act.
Beatification	The design team is to deliberately design for the beautification of the T103 and T104 (islands, entrances, intersections) and eventually the bypass where appropriate (at intersections), by allowing for islands, irrigation, appropriate drought resistant landscaping, in consultation with the Rehoboth Town Council.

#### **3** CONSTRUCTION TENDER PREPARATION PHASE

#### 3.1 GENERAL REQUIREMENTS FOR THE ESMP – CONSTRUCTION PHASE

#### 3.1.1 ESMP Administration

- Copies of this ESMP shall be kept at the site and will be distributed to all contract personnel. All personnel shall be required to familiarize themselves with the contents of this document.
- 3.1.2 Roles and Responsibilities
  - The implementation of this ESMP requires the involvement of several stakeholders, each fulfilling a different but vital role to ensure sound environmental management during each phase.
- a) Contractor
  - The Contractor shall appoint a person from the construction team to take responsibility for the implementation for all provisions of this ESMP.
  - The Contractor shall report on the status of the implementation of the provisions of the ESMP.
  - The contractor should implement the environmental awareness training as stipulated in this report.
  - The contractor must list the stakeholders of the project and their contact details with whom communication would be required throughout the contract. This list, together with an indication of how stakeholder communication will be done throughout construction must be agreed upon and given to the ER before construction commences.
  - The contractor is also responsible for compliance to this ESMP by all subcontractors. Make sure that all sub-contractors have a copy of this ESMP and that they understand its contents. Include the ESMP in the subcontracts/agreements with sub-contractors.
  - The Contractor must adhere to the regulations pertaining to Health and Safety, including the provision of protective clothing and shoes, failing which the contract may be ended immediately.

- b) Employer's Representative (ER)
  - The Developer needs to appoint an Employer's Representative (ER) that could act as the Employer's on-site implementing agent and will be responsible to ensure that the Employer's responsibilities are executed in compliance with relevant legislation and the ESMP. In addition to general project management, the ER in collaboration with the developer has the responsibility to appoint the Environmental Control Officer (ECO) (see below).
  - Any on-site decisions regarding environmental management are ultimately the responsibility of the ER. The on-site ER shall assist the ECO where necessary and will have the following responsibilities in terms of the implementation of this ESMP:
  - Ensuring that the necessary environmental authorizations and permits have been obtained.
  - Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where necessary.
  - Ordering the removal of person(s) and/or equipment not complying with the ESMP specifications.
  - Providing input into the ECO's ongoing internal review of the ESMP, this review report is submitted to the Employer.
- c) Environmental Control Officer (ECO)
  - The Environmental Control Officer (ECO) will be a competent person appointed by the ER to act as the Employer's representative to monitor and review the onsite environmental management and implementation of this ESMP by the Contractor.
  - The ECO shall be on site daily during the construction contract. The ECO's duties will include the following:
    - Assisting the ER in ensuring that the necessary environmental authorizations and permits have been obtained.
    - Maintaining open and direct lines of communication between the ER, Employer, Contractor and I&APs with regard to environmental matters.
    - Regular site inspections of all construction areas with regard to compliance with the ESMP.
    - Monitoring and verifying adherence to the ESMP, monitoring and verifying that environmental impacts are kept to a minimum.
    - Taking appropriate action if the specifications are not followed.

- Assisting the Contractor in finding environmentally responsible solutions to problems.
- Monitoring the undertaking by the Contractor of environmental awareness training for all new personnel coming onto site.
- Advising on the removal of person(s) and/or equipment not complying with the specifications (via the ER).
- Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the ESMP (via the ER).
- Auditing the implementation of the ESMP and compliance with authorization on a monthly basis.
- Undertaking a continual review of the ESMP and recommending additions and/or changes to the document.

#### 3.2 ENVIRONMENTAL AWARENESS TRAINING

The Contractor shall ensure that adequate environmental awareness training of site personnel takes place and that all construction workers receive an induction presentation on the importance and implications of the ESMP. The presentation shall be conducted, as far as is possible, in the employee's language of choice.

As a minimum, training should include:

- Explanation of the importance of complying with the ESMP.
- Discussion of the potential environmental impacts of construction activities.
- The benefits of improved personal performance.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when carrying out their activities.
- Explanation of the specifics of this ESMP and its specification (no-go areas, etc.).
- Explanation of the management structure of individuals responsible for matters pertaining to the ESMP.

The contractor shall keep records of all environmental training sessions, including names, dates and the information presented.

#### 3.3 MANAGEMENT REQUIREMENTS OF THE TENDER PREPARATION PHASE

Table 3 below provides actions to be taken during the tender preparation phase.

Table 3: Construction tender preparation phase management requirements

vant sections of this ESMP should be included in the tender documents for all elopment so that tenderers can make provision for implementation of the ESMP. Financial provision for the compilation of a Waste Management Plan should be
inancial provision for the compilation of a Waste Management Plan should be
ncluded as a cost item within tenders concerning the construction and/or maintenance of services infrastructure. Topsoil management and the rehabilitation of borrow pits should be included as a cost item within construction tender documents (even though borrow pits are not bermitted along Section 1A). Financial provision for the design and implementation of a health, HIV/AIDS, and gender plan and implemented in accordance with Annexure B. Financial provision for the facilitation of an induction programme for both senior, casual construction personnel as well as subcontractors and associated personnel should be included as a cost item within tenders concerning the construction and/or maintenance of services infrastructure. Financial provision for the compilation of a Tree Management Plan should be included as a cost item within construction tender documents Financial provision for the drafting of a Communication Plan should be included as a cost item within construction tender documents. Financial provision for the drafting of a Communication Plan should be included as a cost item within construction Plan should be included as a cost item within construction Plan should be included as a cost item within construction tender documents.
Provisions designed to maximise the use of local labour should be included within enders concerning the construction and/or maintenance of services infrastructure. A provision stating that all unskilled labour should be sourced from local communities should be included within tenders . Specific recruitment procedures ensuring local firms enjoy preference during ender adjudication should be included within tenders concerning the construction and/or maintenance of services infrastructure Provisions promoting gender equality pertaining to recruitment should be included within tenders concerning the construction and/or maintenance of services infrastructure.

### **4** CONSTRUCTION MITIGATION DETAILS

The following table provides a large scale overview of all the major environmental management themes pertaining to both generic and site specific construction mitigation details. This table serves to act as quick reference, for the detailed mitigation details that follow below, for the implementation of the construction component of this ESMP.

Table 4: Generic and site-specific environmental management actions for the construction phase

THEME	OBJECTIVE	SECTION
Waste management	Avoid and where not possible minimise all pollution associated with construction.	Section A
Borrow pits	Ensure topsoil protection and post- construction rehabilitation.	Section B
Health and safety	Safeguard health and safety of labourers and general public.	Section C
Dust and noise	Avoid and where not possible minimise dust and noise associated with construction.	Section D
Environmental training and awareness	Awareness creation regarding the provisions of the ESMP as well as importance of safeguarding environmental resources.	Section E
Environmental conservation	Minimise construction activity footprint and safeguard biodiversity in ecologically sensitive areas.	Section F
Employment/ Recruitment	Minimise negative conflict through legal and fair recruitment practices.	Section G
Stakeholder communication	Provide a platform for stakeholders to raise grievances and receive feedback and hence minimise negative conflict	Section H
Socio-economic and Miscellaneous	Ensure due consideration is given to matters regarding the cultural and general wellbeing of the affected community and matters incidental thereto.	Section I

## SECTION A: WASTE MANAGEMENT

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Waste management plan	The Contractor should compile a Waste Management Plan which should address as a minimum the mitigation measures included below.
Hazardous waste	<ul> <li>All heavy construction vehicles and equipment on site should be provided with a drip tray.</li> <li>Drip trays are to be transported with vehicles wherever they go.</li> <li>Drip trays should be cleaned daily and spillage handled, stored and disposed of as hazardous waste.</li> <li>All heavy construction vehicles should be maintained regularly to prevent oil leakages.</li> <li>Maintenance and washing of construction vehicles should be take place only at a designated workshop area.</li> <li>The workshop area should be lined with concrete.</li> <li>The workshop should have an oil-water separator for collect run-off from washing.</li> <li>Spilled concrete (wet or dry) should be treated as hazardous waste and disposed of by the end of each day in the appropriate hazardous waste containers.</li> <li>All hazardous substances (e.g. fuel etc) or chemicals should be stored in a specific location on an impermeable surface which is bunded.</li> </ul>
Sewage and grey water	<ul> <li>Do not allow the sewage (black water) to be discharged directly onto open soil.</li> <li>All sewage must be removed regularly and disposed of at a recognised (municipal) sewage treatment facility.</li> <li>The water collected from wash basins and showers (grey water), should not be left standing for long periods of time as this promotes mosquito breeding as well as parasite and bacterial proliferation. Grey water should be recycled: <ul> <li>Used for dust suppression;</li> <li>Used to water a vegetable garden, or to support a small nursery;</li> <li>Used to clean equipment.</li> </ul> </li> <li>If grey water will not be recycled it should be removed along with the black water on a regular basis.</li> </ul>
General waste	<ul> <li>The construction site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily.</li> <li>No waste may be buried or burned.</li> <li>Waste containers (bins) should be emptied regularly and removed from site to a recognised (municipal) waste disposal site. All recyclable waste needs to be taken to the nearest recycling depot.</li> <li>A sufficient number of separate waste containers (bins) for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such.</li> <li>Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter.</li> </ul>

<ul> <li>No waste may remain on site after the completion of the project</li> </ul>
SPECIFIC MITIGATION DETAILS
<ul> <li>No handling, storage, transport of waste, hazardous chemicals, bituminous products, and hydrobarbons should be allowed within the Oanob River alluvial area or the riverbed itself, save for what is absolutely necessary, e.g. transport the material across the area to move it from one side to the other.</li> </ul>

#### SECTION B: BORROW PITS

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Topsoil	The Contractor should adhere to prescribed measures emanating from the borrow- pit investigation and the design for excavations and disposal of spoil material.
Rehabilitation	<ul> <li>All borrow pits need to be rehabilitated as follows: <ul> <li>Topsoil must be stockpiled separately when it is opened and covered over the borrow pits during rehabilitation.</li> <li>Borrow pits may only be backfilled with clean or inert fill. No material of hazardous nature (e.g. sand removed with an oil spill) may be dumped as backfill.</li> <li>Rehabilitated borrow pits need to match the contours of the existing landscape.</li> <li>Also take note of drainage channels in the vicinity of the borrow pit. The rehabilitated area should not be higher (or lower) than a drainage channel. This ensures the efficiency of revegetation reduces the chances of potential erosion.</li> <li>Topsoil is to be spread across borrow pit areas evenly.</li> <li>Deep ripping is required, not just simple scarification, so as to enable rip lines to hold water after heavy rainfall.</li> <li>Ripping should be done along slopes, not up and down a slope which could lead to enhanced erosion.</li> </ul> </li> </ul>
	<ul> <li>In grazing areas, rehabilitated borrow pits needs to remain fenced off after the decommissioning of the project to prevent livestock from denuding the newly established vegetation on the area.</li> </ul>
	SPECIFIC MITIGATION MEASURES
	<ul> <li>No pits for sand or gravel are permitted in the Oanob River or its alluvial areas.</li> <li>The limits for the quarries and borrow pits set by the environmental assessment for the quarries and pits should be included here, or be given as a separate ESMP.</li> </ul>

#### APPENDIX C: HEALTH AND SAFETY

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION MEASURES
HIV/AIDS, Gender and other health related issues.	Compile an HIV/AIDS and gender plan for the project and it in accordance with the guidelines contained in Appendix B.
Road Safety	<ul> <li>Demarcate roads clearly.</li> <li>Off-road driving should not be allowed.</li> <li>All vehicles that transport materials to and from the site must be road worthy.</li> <li>Drivers that transport materials should have a valid driver's license and should adhere to all traffic rules.</li> <li>Loads upon vehicles should be properly secured to avoid items falling off the vehicle.</li> </ul>
Safety Around Excavated and Work Areas	<ul> <li>Excavations should be left open for an absolute minimum time.</li> <li>Excavate short lengths of trenches and box areas for services or foundations in such a way that the trench will not be left unattended for more than 24 hours.</li> <li>Demarcate the following areas with danger tape: <ul> <li>All excavation works;</li> <li>Soil and other building material stockpiles; and</li> <li>Temporary waste stockpiles</li> </ul> </li> <li>Provide additional warning signage in areas of movement and in "no personnel" areas where workers are not active.</li> <li>Borrow pits are to be fenced off with steel wire fencing.</li> <li>Work areas must be set out and isolated with danger tape on a daily basis.</li> <li>All building materials and equipment are to be stored only within set out and demarcated work areas.</li> <li>Only construction personnel will be allowed within these work areas.</li> <li>2 fire extinguishers should be available at fuel storage area and cooking facilities (in the event that migrant workers reside near the construction site)</li> <li>Comply with all mitigation measures laid out in Section A (Waste Management mitigation details)</li> </ul>
Ablutions	<ul> <li>Separate ablutions (toilet and shower) should be available for men and women and should clearly be indicated as such.</li> <li>Portable toilets (i.e. easily transportable) should be available at every construction site: <ul> <li>1 toilet for every 25 females.</li> <li>1 toilet for every 50 males.</li> <li>Sewage waste needs to be removed on a regular basis to an approved (municipal) sewage disposal site. Alternatively, pump it into sealable containers and store it until it can be removed.</li> </ul> </li> </ul>

ASPECT	MITIGATION MEASURE
	<ul> <li>Workers responsible for cleaning the toilets should be provided with latex gloves and masks.</li> </ul>
Open fires	<ul> <li>No open fires may be made anywhere on site.</li> <li>No wood may be collected within or near the project area. The Contractor must supply wood (or other fuel) for cooking or heating purposes.</li> </ul>
General	<ul> <li>Dust protection masks should be provided to workers if they complain about dust.</li> <li>Potable water should be provided to workers.</li> <li>No person should be allowed to smoke close to fuel storage facilities or portable toilets (if toilets are chemical toilets – the chemicals are flammable).</li> <li>No workers should be allowed to drink alcohol during work hours.</li> <li>No workers should be allowed on site if under the influence of alcohol.</li> </ul>

### SECTION D: DUST AND NOISE

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Dust	Dust suppression measures should be made applicable where there is a risk to nearby communities, the workforce and sensitive plant communities.
Noise	Work hours should be restricted to between 08h00 and 17h00 where construction involving the use of heavy equipment, power tools and the movement of heavy vehicles is less than 500 m from residential areas.
	SPECIFIC MITIGATION DETAILS
Dust	Due to the large traffic volumes on the T103 and T104, and proximity to residential areas, continued dust suppression is compulsory. The contractor is to spray the exposed surfaces with a chemical dust surfactant (biodegradable), and repeat same when it has worn out. The Contractor is to submit the product that will be used, for approval by the environmental control officer and the environmental monitoring consultant. All relays on these roads are to be surfaced with bitumen.

## SECTION E: ENVIRONMENTAL TRAINING AND AWARENESS

	MITIGATION MEASURE
Environmental Induction (Training)	<ul> <li>All construction workers are to undergo environmental induction (training) which should include as a minimum the following: <ul> <li>Explanation of the importance of complying with the ESMP.</li> <li>Discussion of the potential environmental impacts of construction activities.</li> <li>Employees' roles and responsibilities, including emergency preparedness.</li> <li>Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities.</li> <li>Explanation of the specific mitigation measures within this ESMP especially unfamiliar provisions.</li> <li>This training must be ondergone by all new workers before they may commence with work.</li> <li>A signed copy is to be kept for every worker that this course was attended. Workers need to be made aware of disciplinary actions and/or penal measures and procedures in case of non-conformance.</li> </ul> </li> </ul>

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Conservation of vegetation	<ul> <li>The Contractor should compile a Tree Management Plan which should include the following as a minimum: <ul> <li>Trees with a trunk size of 150 mm and bigger should be surveyed, marked with paint (readily visible) and protected;</li> <li>Trees with a trunk size of 150mm and bigger, which are impossible to conserve, need to be identified and their location recorded on a map;</li> <li>The Contractor should apply to the nearest forestry office for a permit to remove these trees.</li> <li>A list should be compiled of all trees to be removed detailing their coordinates, the species as well as which trees will be planted to replace these. The nursery where these trees will be sourced from should also be included;</li> <li>Each tree that is removed needs to be replaced after construction (see Appendix A for list of recommended trees);</li> <li>Some of these trees can be obtained at the nearest forestry office or at a commercial nursery. The forestry officers can also direct to nearby nurseries where additional trees may be bought.</li> </ul> </li> <li>Areas to be cleared of vegetation need to be demarcated and kept to a minimum. These need to be marked and the entire workforce instructed and managed so that this restricted area boundaries are honoured.</li> </ul>
Materials camp and lay-down areas	<ul> <li>Suitable locations for the materials camp and lay-down areas should be identified with the assistance of the ER and the following should be considered in selecting these sites:</li> <li>The areas designated for the proposed services infrastructure should be used as far as possible</li> <li>Second choice should be degraded land</li> <li>Avoid sensitive areas (e.g. rivers or drainage lines).</li> </ul>
	SPECIFIC MITIGATION DETAILS
Conservation of vegetation	<ul> <li>The White Rock hill (See Appendix A, is a no-go area).</li> <li>The Camel Thorn trees in the area are of particular conservation concern – they are a heritage of the nation, and of particular conservation concern to the Rehoboth community. The contractor will be under scrutiny and held particularly accountable for the loss of any of these trees, without the RE and the Eco have given permission to do so. Therefore the contractor may not remove any tree which has not been marked as such. A record of trees to be removed vs. trees to be conserved needs to be kept on a map, and this monitored by the ECO and the RE. A record shall be kept of trees on site, and a fine of N\$ 20,000.00 will be issued per tree lost, and N\$ 10,000 per tree damaged, without prior written</li> </ul>

## SECTION F: ENVIRONMENTAL CONSERVATION

arrangement.
<ul> <li>All protected trees and trees with a diameter greater than 150mm need to be identified and replaced by appropriately vegetating suitable islands along the T103/104.</li> </ul>
• All protected trees to be removed need permits obtainable from the Forestry Office. These include Boscia Albitrunka, Albizia Anthelmintica, and Acacia Erioloba. These trees need to be replaced at designated areas, as per the design.

## SECTION G: EMPLOYMENT/RECRUITMENT

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Legislation	Adhere to the legal provisions in the Labour Act (see The table below provides a list of permit and legal requirements to be met during the construction phase, and to be considered during the planning phase of the project. Relevant instructions are included under the various phases. Table 1) for the recruitment of labour (target percentages for gender balance,
	optimal use of local labour and SME's, etc) in the Contract.
Recruitment	The Contractor should compile a formal recruitment process including the following provisions as a minimum:
	<ul> <li>The local authority (town council, community development division) should assist with the recruitment process.</li> </ul>
	<ul> <li>Recruitment should not take place at the construction site.</li> </ul>
	<ul> <li>Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed upon process.</li> </ul>
	<ul> <li>Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those from the project area (Windhoek).</li> </ul>
	<ul> <li>Clearly explain to all job-seekers the terms and conditions of their respective employment contract (e.g. period of employment etc.) – make use of interpreters when necessary.</li> </ul>

### SECTION H: STAKEHOLDER COMMUNICATION

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Communication plan	<ul> <li>The Contractor should draft a Communication Plan, which should outline as a minimum the following:</li> <li>How stakeholders, who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records;</li> <li>How these stakeholders will be consulted on an ongoing basis;</li> <li>Make provision for grievance mechanisms – i.e. how concerns can/ will be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the even feedback is deemed unsatisfactory.</li> </ul>
General communication matters	<ul> <li>The ER must appoint an ECO to liaise between the Contractor, stakeholders, Developer, and consultants. The appointed Contractor shall appoint a person from the construction team to take responsibility for the implementation for all provisions of this ESMP.</li> <li>The Contractor shall at every site meeting report on the status of the implementation of all provisions of the ESMP.</li> <li>The Contractor should implement the environmental awareness training as stipulated in Section E.</li> <li>The Contractor must list the stakeholders of the project and their contact details with whom ongoing communication would be required for duration of the contract. This list, together with the Communication Plan must be agreed upon and given to the ER before construction commences.</li> <li>The Communication Plan, once agreed upon by the Developer, shall be binding.</li> <li>All communication with the stakeholders must take place through the ECO.</li> <li>A copy of the ESMP must be available at the site office and should be accessible to all stakeholders</li> <li>Key representatives from the above mentioned list need to be invited to attend monthly site meetings to raise any concerns and issues regarding project progress.</li> <li>The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences.</li> <li>All people on the stakeholders list should be informed about the availability of the complaints register in writing by the ER prior to the commencement of construction activities.</li> </ul>

SPECIFIC MITIGATION DETAILS
<ul> <li>The stakeholders list shall at least include Rehoboth Town Council, Ministry of Health and Social Services (HIV/AIDS and Health and Safety issues), and property owners whose land are affected.</li> </ul>
<ul> <li>For the upgrading of the T103-T104: The contractor shall liaise closely with the Rehoboth Town Council to organise periodic information pamphlets, radio announcements, etc. to inform the public of the road construction.</li> </ul>

## SECTION I: SOCIO-ECONOMIC AND MISCELLANEOUS

ASPECT	MITIGATION MEASURE
	GENERIC MITIGATION DETAILS
Archaeology	<ul> <li>Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, a "chance find" procedure should be applied in the order they appear below: <ul> <li>If operating machinery or equipment stop work;</li> <li>Demarcate the site with danger tape;</li> <li>Determine GPS position if possible;</li> <li>Report findings to foreman;</li> <li>Report findings, site location and actions taken to superintendent;</li> <li>Cease any works in immediate vicinity;</li> <li>Visit site and determine whether work can proceed without damage to findings;</li> <li>Determine and demarcate exclusion boundary;</li> <li>Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by archaeologist;</li> <li>Inspect site and confirm addition to project GIS;</li> <li>Advise the National Heritage Council (NHC) and request written permission to remove findings from work area; and</li> <li>Recovery, packaging and labelling of findings for transfer to National Museum.</li> </ul> </li> <li>Should human remains be found, the following actions will be required: <ul> <li>Apply the chance find procedure as described above;</li> <li>Schedule a field inspection with an archaeologist to confirm that remains are human;</li> <li>Advise and liaise with the NHC and Police; and</li> <li>Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.</li> </ul> </li> </ul>

# 5 OPERATION AND MAINTENANCE PHASE

#### Table 5: Operation and maintenance phase mitigation measures

ASPECT	MITIGATION MEASURE
ESMP implementation	If any construction is to be conducted as part of maintenance works for the services infrastructure within the project area please refer to the construction mitigation measures of this ESMP (Section 4).
Post-construction usage	Borrow pits to be utilised post-construction should adhere to the same topsoil and rehabilitation measures outlined within construction mitigation measures of this ESMP (Section 4) above.
Post-construction environmental training and awareness	All contractors appointed for maintenance work on the respective services infrastructure must ensure that all personnel are aware of necessary health, safety and environmental considerations applicable to their respective work.

## 6 APPENDIX A: LIST OF PERMITTED INDIGENOUS TREES TO PLANT

COMMON NAME	SCIENTIFIC NAME
Worm-cure Albizia	Albizia anthelmintica
Sweet thorn	Acacia Karroo
Buffalo-thorn	Ziziphus mucronata
Camelthorn	Acacia Erioloba

#### 7 APPENDIX B: HEALTH, HIV/AIDS AND GENDER SPECIFICATIONS

The following measures are to be taken in accordance to the Guidelines for Integrating HIV and Gender related issues into Capital projects in Namibia, by the UNDP for the Ministry of Environment and Tourism. The measures below are from these guidelines, adapted to this specific project.

Recommended HIV/mitigation actions to be taken during construction and operations of a project by all contractors and project owners.

General health risks associated with capital projects include general workplace safety, occupational health aspects, communicable diseases and non-communicable diseases as well as HIV and AIDS. These must be militated against. All contractors need to collaborate with a selected NGO and the Ministry of Health and Social services to provide these services. Trustworthy churches (those who have a long standing reputation in the community) should also be involved to convey the moral aspects to the workforce and the community (i.e. that sex is meant by God for the marriage) and short term and multiple sexual relationships have negative consequences on relationships, on health, etc.).

- Promote VCT, and include public testing of all personnel.
- Identify and train peer educators in the community. The focus need to move beyond HIV awareness to more fundamental behaviour change outcomes, based on agreed targets and key performance areas.
- Facilitate provision of free antiretroviral (ARV) to staff.
- Facilitate access to free condoms in the workplace, based on agreed targets and key performance indicators.
- Provide married quarters, rather than single sex hostels for staff (only for staff imported, otherwise the majority of staff should be recruited from Rehoboth).
- Recruit locally wherever possible.
- Take all necessary measures to ensure that job seekers do not flock to the project site looking for work, including the following:
  - Not hiring any casual labourers "at the gate";
  - Conducting job interview at a pre-determined locality arrange with the Rehoboth Town Council and the Regional Council, not on site;
  - Conducting advertising campaigns to inform people about the employment policies and procedures; and
  - Working with local government and police to ensure that squatter camps do not start at the site gate or extend in any area of Rehoboth area.

- Extend the workplace programme for HIV beyond the company' operations, and include all contractors, suppliers, transportation companies and local communities. The spread of HIV along transportation routes (roads and railways) is well documented, so that component of the project (transportation of all goods and services to and from the project site) needs specialist attention, for example:
  - Select suppliers who have in-house HIV programmes and policies in place;
  - Developer tailored Social Behaviour and Community Change (SBCC) materials such as mirror hanger messages and bumper stickers;
  - o Include condoms in the road safety kit;
  - Work with the truck company managers, supplying materials to the project, to ensure that drivers receive adequate HIV training;
  - Lobby where appropriate and if applicable to improve border crossing procedures for trucks to minimise delays; and
  - Target main transportation hubs (e.g. loading/offloading points, transporter ret shops, passenger transport terminals, etc.) with HIV awareness campaigns.
- Form partnerships with the Town Council of Rehoboth, local NGO's and CBO's but make sure they have sufficient funds to do the work required. Note: it is better to appoint only one agency to do the work required, but if you do appoint more than one, make sure each knows its scope of work, mandate and methods of reporting so that there is no confusion.
- Form an AIDS task force for the project with representatives from unions, management, local community members, and people living with HIV.
- Allocate specific budgets and staff responsibilities for HIV prevention activities and deliverables.
- Project managers, supervising consultants and contractors should all receive adequate training and technical support to design and monitor HIV components.
- Conduct regular health/disease surveillance in construction camps.
- Launch SBCC (Social and Behaviour Change Campaign) programmes, which could include a range of different approaches to reach as many people as possible. Target these campaigns in the settings that include but are not limited to:-the construction workplace and camp, transport corridors, local communities and health services, and at entertainment venues, local villages, and in laborsending/sourcing areas. Communications media to use: billboards, pamphlets, radio and TV, mobile phones, local newsletters and newspapers, storybooks/cartoons, theatre/drama, youth nights with quizzes, games, singing, drama all themed on HIV, T-shorts and caps with HIV message, focus group meetings

- Hold regular education campaigns (monthly) for construction workers and the local communities (together), focusing on HIV prevention and care, and
- Support visits to communities, women's groups, faith groups, taverns/bars and sex workers.
- For the SBCC campaign to reach as many people as possible, it should be designed to:
  - o Cross language barriers;
  - Reach ethnic minorities;
  - Address foreign construction workers;
  - Be gender sensitive (not all construction workers are men, for example).
  - Be rolled out to all directly affected communities, even if these may be quite far from the construction site – for example, at border crossings where trucks get delayed for hours or even days.
  - Promote use of health services and products try to de-stigmatize the need to go to the clinic.

Recommended gender mitigation actions to be taken during construction and operation of a project by all contractors and project owners

- Identify and train peer educators in the community. The focus need to move beyond gender awareness to more gender empowerment with agreed targets and indicators.
- Recruit locally and equitably between men and women and their wages should be based on skills and competence and not gender, wherever possible.
- Put in place measures that will safeguard the rights and needs of the vulnerable or the marginalized including women, youth, the disabled and elderly.
- Develop a gender-specific outreach programme for the project.
- Include measures that will prevent or control vulnerability of women, children and men to alcoholism and substance abuse.
- Empower women and children regarding potential risks that may arise to them and their communities due to construction and operation of capital projects in their area.
- Bring awareness to women regarding income generating activities and other positive benefits that may arise due to the project being implemented in their area.
- Empower women so that they have power and a voice to decide regarding sexual activities.
- Gender outreach programmes should be:
  - Held at convenient times for all involved (workers, women, the youth).
  - Rolled out to all communities involved.
  - Form a gender specific task force for the project with representatives from unions, management and local community members.

- Allocate specific budgets and staff responsibilities for gender-specific deliverables.
- Project managers, supervising consultants and contractors should all receive adequate training and technical support to design and monitor gender issues.
- Where possible, encourage family employment contracts, i.e. employ both husband and wife – particularly where the staff member is not from the area. Create accommodation for the husband and wife to be together, even if the wife cannot be employed.