

Environmental Management Plan

**PROPOSED TOWNSHIP ESTABLISHMENT ON PORTION 111
(A PORTION OF PORTION 39) OF CONSOLIDATED FARM
TSMORE NO. 761, TSUMEB, OSHIKOTO REGION**

PROJECT DETAILS

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ABBREVIATIONS

AIDS	Acquired Immuno-Deficiency Syndrome
DR	Developer’s Representative
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GG	Government Gazette
GIS	Geographic Information System
GN	Government Notice
GPS	Global Positioning System
HIV	Human Immuno-deficiency Virus

I&APs	Interested and Affected Parties
NHC	National Heritage Council
Reg.	Regulation
S	Section
TB	Tuberculosis

1 INTRODUCTION

Urbanization and its impact on quality of life (or lack thereof) are two of the biggest challenges we face globally. Increasing urbanization has severe economic and social consequences for our society. Among them are overpopulation, pollution, inadequate infrastructure and overuse of natural resources, as well as rising property values and living costs.

Urban planning has failed to accommodate a large influx of people, resulting in sprawling communities within the urban edge. In the end, large residential neighbourhoods with no sense of place and a low quality of life are the result.

Establishing contemporary mixed land use urban villages is one solution to address the negative impacts of urbanization. In these villages, residents live a life in harmony with nature, minimizing consumption and making maximum use of resources for the best and healthiest lifestyle possible. Smaller mixed land use urban village settlements relieve cities' resources and infrastructure of the strain placed on them. The solution here is to bring back an age-old concept of living close to fertile agricultural land to supply fresh food daily, along with open, green spaces for recreation and well-being.

Rainy Day Investments Thirty-Seven (Pty) Ltd (the proponent) has obtained Portion 111 (a Portion of Portion 39) of Consolidated Farm Tsumore No. 761, Tsumeb, Oshikoto Region. Accordingly, the above-mentioned property offers an excellent opportunity to establish a new mixed land use village that will significantly enhance the broad strategic and development objectives of the Tsumeb Municipality in line with the Tsumeb Structure Plan.

Located south west of Tsumeb, the proposed development site is connected to the town by the B1. It is intended to augment the natural, rural Namibian landscape and use it as a guide for the design process of the site, capitalising on the rural character of the site.

The goal is to create an enduring development that imposes little service burden on the Tsumeb Local Municipality. The Tsumeb Local Municipality will thus not be required to invest in infrastructure or provide services (sewer, water, and power) for this proposed development.

The proponent appointed Environam Consultants Trading cc (ECT) to undertake the Environmental Assessment (EA) in order to obtain an Environmental Clearance Certificate (ECC) for the activities. The Ministry of Environment and Tourism: Department of Environmental Affairs (MET: DEA) is the competent environmental authority.

The process will be undertaken in terms of the gazetted Namibian Government Notice No. 30 Environmental Impact Assessment Regulations (herein referred to as EIA Regulations) of the Environmental Management Act (No 7 of 2007) (herein referred to as the EMA). The EIA

process will investigate if there are any potential significant bio-physical and socio-economic impacts associated with the proposed development and related infrastructure and services.

The EIA process would also provide an opportunity for the public and key stakeholders to provide comments and participate in the process. It will also serve the purpose of informing the proponent's decision-making, and that of MEFT.

An EMP is one of the most important outputs of the EIA process as it synthesises all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. This EMP details the mitigation and monitoring actions to be implemented during the following phases of this development:

- Planning and Design - the period, prior to construction, during which preliminary legislative and administrative arrangements, necessary for the preparation of the land, are made and engineering designs are carried out. The preparation of construction tender documents forms part of this phase;
- Construction - the period during which the proponent, having dealt with the necessary legislative and administrative arrangements, appoints a contractor for the construction of services infrastructure, buildings as well as any other construction process(s) within the development areas;
- Operation and Maintenance - the period during which the development will be fully functional, operational and maintained.

The decommissioning of this development is not envisaged; however, in the event that this should be considered some recommendations have been outlined in **Table 5-4**.

2 ROLES AND RESPONSIBILITIES

Rainy Day Investments Thirty-Seven (Pty) Ltd (the Developer) is ultimately responsible for the implementation of the EMP, from the planning and design phase to the decommissioning phase of this development, if the development is in future decommissioned. The developer will delegate this responsibility as the project progresses through its life cycle. The delegated responsibility for the effective implementation of this EMP will rest on the following key individuals:

- Developer's Representative;
- Environmental Control Officer; and
- Contractor (Construction and Operations and Maintenance).

2.1 DEVELOPER’S REPRESENTATIVE

The Developer should assign the responsibility of managing all aspects of this development for all development phases (including all contracts for work outsourced) to a designated member of staff, referred to in this EMP as the Developer’s Representative (DR). The Developer may decide to assign this role to one person for the full duration of the development, or may assign a different DR to each of the development phases - i.e. one for the planning and design phase, one for the construction phase and one for the operation and maintenance phase. The DR’s responsibilities are depicted in **Table 2-1** as follows:

Table 2-1: DR’s responsibilities

Responsibility	Project Phase
Making sure that the necessary approvals and permissions laid out in Table 4-1 are obtained/adhered to	Throughout the lifecycle of this development
Making sure that the relevant provisions detailed in Table 5-1 are addressed during planning and design phase.	Planning and design phase
Suspending/evicting individuals and/or equipment not complying with the EMP	<ul style="list-style-type: none"> • Construction • Operation and maintenance
Issuing fines for contravening EMP provisions	<ul style="list-style-type: none"> • Construction • Operation and maintenance

2.2 ENVIRONMENTAL CONTROL OFFICER

The DR should assign the responsibility of overseeing the implementation of the whole EMP on the ground during the construction and operation and maintenance phases to a designated member of staff, referred to in this EMP as the Environmental Control Officer (ECO). The DR/Developer may decide to assign this role to one person for both phases, or may assign a different ECO for each phase. During the operation phase the Developer may outsource the monitoring and evaluation of the EMP to an independent Environmental Consultant. The ECO will have the following responsibilities during the construction and operation and maintenance phases of these developments:

- Management and facilitation of communication between the Developer, DR, the contractors, and Interested and Affected Parties (I&APs) with regard to this EMP;

- Conducting site inspections (recommended minimum frequency is monthly) of all construction and/or infrastructure maintenance areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP);
- Assisting the Contractor in finding solutions with respect to matters pertaining to the implementation of this EMP;
- Advising the DR on the removal of person(s) and/or equipment not complying with the provisions of this EMP;
- Making recommendations to the DR with respect to the issuing of fines for contraventions of the EMP; and
- Undertaking an annual review of the EMP and recommending additions and/or changes to this document.

2.3 CONTRACTOR

Contractors appointed by the Developer are automatically responsible for implementing all provisions contained within the relevant chapters of this EMP. Contractors will be responsible for the implementation of this EMP applicable to any work outsourced to subcontractors.

Table 5-2 applies to contractors appointed during the construction phase and **Table 5-3** to those appointed during the operation and maintenance phase. In order to ensure effective environmental management the aforementioned chapters should be included in the applicable contracts for outsourced construction, operation and maintenance work.

The tables in **Chapter 5** detail the management measures associated with the roles and responsibilities that have been laid out in this chapter.

3 ASSUMPTIONS AND LIMITATIONS

This EMP has been drafted based on the scoping-level Environmental Assessment (EA) conducted for the proposed development as represented by the developer. ECT will not be held responsible for the potential consequences that may result from any alterations to the initial layout.

It is assumed that construction labourers will be sourced mostly from the Tsumeb area and that migrant labourers (if applicable) will be housed within the town of Tsumeb.

4 APPLICABLE LEGISLATION

Legal provisions that have relevance to various aspects of this development are listed in

Table 4-1 below. The legal instrument and applicable corresponding provisions are provided.

Table 4-1: Legal provisions relevant to this development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	Article 91 (c) provides for duty to guard against “the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia.” Article 95(l) deals with the “maintenance of ecosystems, essential ecological processes and biological diversity” and sustainable use of the country’s natural resources.	Sustainable development should be at the forefront of this development.
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management	The development should be informed by the EMA.
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.	Activity 10.1 (a) The construction of oil, water, gas and petrochemical and other bulk supply pipelines. Activity 10.1 (b) The construction of public roads. Activity 10.2 (a) The route determination of roads and design of associated physical infrastructure where it is a public road.
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.
Namibia Vision 2030	Vision 2030 states that the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets.	Care should be taken that the development does not lead to the degradation of the natural beauty of the area.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Water Resources Management Act 11 of 2013.	<ul style="list-style-type: none"> • A permit application in terms of Sections 72(1) of the Water Act is required for the disposal of industrial or domestic waste water and effluent. • Section 44 (1): a licence for abstraction and use of water, to be obtained from the Minister. • 64. (1) (a) Licence to abstract and dispose of groundwater - from a mine or other excavation to facilitate mining or other underground operations. 	<p>Obligation not to pollute surface water bodies.</p> <p>The following licences are required in terms of the Water Resources Management Act:</p> <ul style="list-style-type: none"> • Licence to abstract and use water; • Groundwater disposal licence; • Borehole licence.
The Ministry of Environment and Tourism (MET) Policy on HIV & AIDS	MET has recently developed a policy on HIV and AIDS. In addition, it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	The proponent and its contractor have to adhere to the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when construction workers interact with local communities.
Urban and Regional Planning Act, 2018	The Act provides for the establishment of townships.	Section 64 defines the procedure and functionary of townships establishment.
Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the Town or Municipal Council. Sections 34-47 make provision for the aspects of water and sewerage.	The development has to comply with the provisions of the Local Authorities Act
Labour Act no 11 of 2007	Chapter 2 details the fundamental rights and protections. Chapter 3 deals with the basic conditions of employment.	Given the employment opportunities presented by the development, compliance with the labour law is essential.
Public Health Act no 36 of 1919	Section 119 prohibits persons from causing nuisance.	Contractors and residents of the proposed extensions are to comply with these legal requirements.
Nature Conservation Ordinance no 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants have to be managed within the legal confines.
Atmospheric Pollution Prevention Ordinance (No. 11 of 1976).	The Ordinance objective is to provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto.	All future activities on the sites will have to take due consideration of the provisions of this legislation.
Roads Ordinance 17 of 1972	This Ordinance consolidates the laws relating to roads.	The provisions of this legislation have to be taken into consideration in as far as access to the development site is concerned.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Roads Authority Act, 1999	Section 16(5) of this Act places a duty on the Roads Authority to ensure a safe road system.	Some functions of the Roads Ordinance 17 of 1972 have been assigned to the Roads Authority.

5 MANAGEMENT ACTIONS

The aim of the management actions in this chapter of the EMP is to avoid potential impacts where possible. Where impacts cannot be avoided, measures are provided to reduce them.

The following tables provide the management actions recommended to manage the potential impacts rated in the scoping-level EA conducted for this development. These management actions have been organised temporally according to project phase:

- Planning and design phase management actions (**Table 5-1**);
- Construction phase management actions (
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- Table 5-2);
- Operation and maintenance phase management actions (**Table 5-3**);
- Decommissioning phase management actions (**Table 5-4**).

The responsible persons at the Developer’s team have assessed these commitments in detail and have committed to the specific management actions where indicated in the tables below.

5.1 PLANNING AND DESIGN PHASE

The DR should ensure that the management actions detailed below in **Table 5-1** are adhered to during the period before the construction of the infrastructure starts.

Table 5-1: Planning and design management actions

PLANNING AND DESIGN PHASE IMPACTS	
Impact	Mitigation Measures
Land use change	<ul style="list-style-type: none"> • Ensure that proposed developments are aligned with the zoning. • Identify, retain and incorporate as much of the important indigenous trees. • Introduce landscaping to supplement and replace existing and removed vegetation.
Fauna and flora	<ul style="list-style-type: none"> • Adapt the proposed developments to the local environment - e.g. small adjustments to the site layout could avoid existing trees, etc. • Identify and prevent the destruction of protected tree species. • Prevent contractors from collecting wood, veld food, etc. during the construction phase. • Do not clear the entire development site, but rather keep the few individuals and/or clumps of trees/shrubs not directly affecting the development as part of the landscaping. • The trees that are to be kept should be clearly marked with “danger tape” to prevent accidental removal. • Regular inspection of the marking tool should be carried out. • The very important trees should be “camped off” to prevent the unintended removal or damage to these trees. • Plant local indigenous species of flora as part of the landscaping as these species would require less maintenance than exotic species. • Prevent the introduction of potentially invasive alien ornamental plant species such as; Lantana, Opuntia, Prosopis, Tecoma, etc.; as part of the landscaping as these species could infestate the area further over time. • Transplant removed trees where possible, or plant new trees in lieu of those that have been removed. • Consider remediation of any potential contaminated soils to be used for planting.

PLANNING AND DESIGN PHASE IMPACTS	
Impact	Mitigation Measures
Existing service infrastructure	<ul style="list-style-type: none"> • It is recommended that alternative and renewable source of energy be explored and introduced into the proposed development to reduce dependency on the grid. • Solar geysers and panels should be introduced to provide for general lighting and heating of water and buildings. • Other ‘green’ technologies to reduce the proposed development’s dependency on fossil fuel should be explored where possible. • Designs and building materials should be as such to reduce dependency on artificial heating and cooling in order to limit the overall energy demand. • Water saving mechanisms should be incorporated within the proposed development’s design and plans in order to further reduce water demands. • Re-use of treated waste water should be considered wherever possible to reduce the consumption of potable water. • Adhere to water quality guidelines in terms of The Water Resources Management Act 11 of 2013.
Traffic	<ul style="list-style-type: none"> • Consult the Roads Authority to determine and agree on the most suitable access to the sites.
Heritage sites	<ul style="list-style-type: none"> • The project management should be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds. • In the event of such finds, construction must stop and the project management or contractors should notify the National Heritage Council of Namibia immediately.

5.2 CONSTRUCTION PHASE

The management actions listed in

Table 5-2 apply during the construction phase. This table may be used as a guide when developing EMPs for other construction activities within this development area.

Table 5-2: Construction phase management actions

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
Pressure on existing infrastructure	<ul style="list-style-type: none"> • Ensure all potable water points are metered and regularly read. • Ensure that the workforce is provided with temporary toilets during the construction phase. • Waste from the temporary toilets should be disposed of at the Tsumeb Wastewater Treatment Works. • A sufficient number of waste bins should be placed around the site for the soft refuse. • A sufficient number of skip containers for the heavy waste and rubble should be provided for around the site. • Solid waste will be collected and disposed of at an appropriate local land fill in Tsumeb, in consultation with the local authority.
Surface and ground water impacts	<ul style="list-style-type: none"> • It is recommended that construction takes place outside of the rainy season in order to limit flooding on site that may lead to ground and surface water pollution. • No dumping of waste products of any kind in or in close proximity to surface water bodies should be allowed. • Heavy construction vehicles should be kept out of any surface water bodies and the movement of construction vehicles should be limited where possible to the existing roads and tracks. • Ensure that oil/ fuel spillages from construction vehicles and machinery are minimised and that where these occur, that they are appropriately dealt with. • Drip trays must be placed underneath construction vehicles when not in use to contain all oil that might be leaking from these vehicles. • Contaminated runoff from the construction sites should be prevented from entering water bodies. • All materials on the construction site should be properly stored.

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Disposal of waste from the sites should be properly managed and taken to the Tsumeb landfill site. • Construction workers should be given ablution facilities at the construction sites that are located at least 30 m away from any surface water and these should be regularly serviced. • Washing of personnel or any equipment should not be allowed on site. Should it be necessary to wash construction equipment these should be done at an area properly suited and prepared to receive and contain polluted waters.
Health, Safety and Security	<ul style="list-style-type: none"> • Construction personnel should not overnight at the site, but only the security personnel. • Ensure that all construction personnel are properly trained depending on the nature of their work. • Provide for a first aid kit and a properly trained person to apply first aid when necessary. • A wellness program should be initiated to raise awareness on health issues, especially the impact of sexually transmitted diseases. • Provide free condoms in the workplace throughout construction and project operation. • Facilitate access to Antiretroviral medication • Restrict unauthorised access to the site and implement access control measures • Clearly demarcate the construction site boundaries along with signage of “no unauthorised access”. • Clearly demarcate dangerous areas and no-go areas on site. • Staff and visitors to the site must be fully aware of all health safety measures and emergency procedures. • The contractor must comply with all applicable occupational health and safety requirements. • The workforce should be provided with all necessary Personal Protective Equipment where appropriate.
Traffic	<ul style="list-style-type: none"> • Limit and control the number of access points to the site. • Minimise using the B1 national road for access to the site. • Ensure that road junctions have good sightlines. • Construction vehicles’ need to be in a road worthy condition and maintained throughout the construction phase. • Transport the materials in the least number of trips as possible. • Adhere to the speed limit.

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Implement traffic control measures where necessary. • Minimise the movement of heavy vehicles during peak time.
Noise	<ul style="list-style-type: none"> • No amplified music should be allowed on site. • Inform immediate neighbours of construction activities to commence and provide for continues communication between the neighbours and contractor. • Limit construction times to acceptable daylight hours. • Install technology such as silencers on construction machinery. • Do not allow the use of horns as a general communication tool, but use it only where necessary as a safety measure. • Provide protective equipment such as ear muffs and ear plugs to workers.
Air quality	<ul style="list-style-type: none"> • All loose material should be kept on site for the shortest possible time. • It is recommended that a dust suppressant such as Dustex be applied to all the construction clearing activities to minimise dust emissions. • Construction vehicles to only use designated roads. • During high wind conditions the contractor must make the decision to cease works until the wind has calmed down. • Cover any stockpiles with plastic to minimise windblown dust. • Provide workers with dust masks. • Ensure construction vehicles are well maintained to prevent excessive emissions of smoke.
Solid Waste	<ul style="list-style-type: none"> • A sufficient number of waste bins should be placed around the site for the soft refuse. • A sufficient number of skip containers for the heavy waste and rubble should be provided for around the site. • Solid waste will be collected and disposed of at an appropriate local land fill in Tsumeb, in consultation with the local authority.

CONSTRUCTION PHASE IMPACTS	
Impact	Mitigation Measures
Hazardous Substances	<ul style="list-style-type: none"> All chemicals and other hazardous substances must be stored and maintained in accordance with the Hazardous Substances Ordinance (No. 14 of 1974), with all relevant licences and permits to be obtained where applicable. Given the potential harm to human health during handling and use of any of hazardous substances it is essential that all staff be trained with regards to the proper handling of these substances as well as First Aid in the case of spillage or intoxication. Storage areas for all substances should be bunded and capable to hold 120% of the total volume of a given substance stored on site.
Social	<ul style="list-style-type: none"> Ensure locals enjoy priority in terms of job opportunities for skills that are available locally, to the extent possible. Ensure local procurement where commodities are available locally.

5.3 OPERATION AND MAINTENANCE PHASE

The management actions included in **Table 5-3** below apply during the operation and maintenance phase of this development.

Table 5-3: Operation and maintenance management actions

OPERATIONAL PHASE IMPACTS	
Impact	Mitigation Measures
Surface and Ground Water	<ul style="list-style-type: none"> A no-go buffer area of at least 15 m should be allocated to any water bodies in the area.

OPERATIONAL PHASE IMPACTS	
Impact	Mitigation Measures
	<ul style="list-style-type: none"> • No dumping of waste products of any kind in or in close proximity to any water bodies. • Contaminated runoff from the various operational activities should be prevented from entering any water bodies. • Ensure that surface water accumulating on-site are channelled and captured through a proper storm water management system to be treated in an appropriate manner before disposal into the environment. • Wastewater should not be discharged directly into the environment. • Disposal of waste from the development should be properly managed. • The service infrastructure should be designed and constructed by suitably qualified engineering professionals. • Develop and implement a preventative maintenance plan for the service infrastructure.
Visual and Sense of Place	<ul style="list-style-type: none"> • It is recommended that more ‘green’ technologies be implemented within the architectural designs and building materials of the development where possible in order to minimise the visual prominence of such a development within the more natural surrounding landscape. • Natural colours and building materials such as wood and stone should be incorporated as well as the use of indigenous vegetation in order to beautify the development. • Visual pollutants can further be prevented through mitigations (i.e. keep existing trees, introduce tall indigenous trees; keep structures unpainted and minimising large advertising billboards).
Noise	<ul style="list-style-type: none"> • Limit the types of activities that generate excessive noise within the new development. • All areas where noise levels are above 85 dB should be managed and controlled in accordance with the Labour Act. • Continuous monitoring of noise levels should be conducted to make sure the noise levels do not exceed acceptable limits.

OPERATIONAL PHASE IMPACTS	
Impact	Mitigation Measures
	<ul style="list-style-type: none"> No activity having a potential noise impact should be allowed after 18:00 if possible.
Air quality	<ul style="list-style-type: none"> Consider tarring/paving of the internal road network. Manage activities that generate emissions or dust. Ensure that activities generating emissions are equipped with pollution controlling technologies. Ensure emissions from any activity within the proposed development site are within the World Health Organisation (WHO) Air Quality Guidelines.
Solid waste	<ul style="list-style-type: none"> A sufficient number of waste bins should be placed on the properties for the soft refuse. A sufficient number of skip containers for the heavy waste and rubble should be provided for at appropriate sites. The waste containers should be able to be closed to prevent birds and other animals from scavenging. Solid waste will be collected and disposed of at an appropriate local land fill in Tsumeb, this should be done in consultation with the local authority.
Social	The township establishments and other related developments will greatly contribute to the well-being and quality of life of the Tsumeb residents.

5.4 DECOMMISSIONING PHASE

The decommissioning of this development is not foreseen. In the event that this development is decommissioned the following management actions in **Table 5-4** should apply.

Table 5-4: Decommissioning phase management actions

Environmental Feature	Management Actions
Deconstruction activity	<p>Many of the mitigation measures prescribed for construction activity for this development (Table 5-2 above) would be applicable to some of the decommissioning activities. These should be adhered to where applicable.</p>
Rehabilitation	<p>In the event that decommissioning is deemed necessary, excavations need to be rehabilitated according to the management actions laid out in</p> <p>Table 5-2 above.</p>

Appendix A - Property Development Environmental Management Plan

This Property Development Environmental Management Plan will form part of every Deed of Sale or lease agreement to be entered into between RD37 and purchasers of the individual erven on Portion 111. It is proposed that the Developer commission a tree survey preferably with the assistance of a vegetation specialist to identify the individual trees that will be kept.

Environmental feature	Mitigation measure
Conservation of vegetation	<ul style="list-style-type: none"> • All trees listed (with co-ordinates provided) in the title deed/lease agreement for this erf should be conserved as far as practicably possible. These trees should be incorporated into the planning layout of any structures to be erected on this erf. • Where listed trees cannot be accommodated by the planned structures to be built, written motivation should be submitted to the Tsumeb Municipality requesting permission to remove such trees. Only once a permit has been received from the municipality may the owner of the erf remove affected trees.
Health and safety	<ul style="list-style-type: none"> • No human waste may be expelled on open soil. Every construction site should have at least one portable toilet. • Only one to two security guards may reside/sleep on-site during construction. No other construction personnel may sleep/reside on-site. • No open fires may be made anywhere on-site during the construction period. Heating and cooking facilities (where necessary/applicable) should be provided by the Contractor.
Waste management	<ul style="list-style-type: none"> • The waste container of portable toilets should be emptied on a regular basis to avoid overflows. Waste from portable toilets should be removed to the Tsumeb Municipality wastewater treatment facility. • All waste should be placed in the appropriate waste containers on a daily basis. • All waste on-site should be removed on a weekly basis. • Concrete should not be mixed on open soil. Concrete should be mixed on an impermeable (i.e. lined) surface.

Appendix B - Water Quality Guidelines