

Form 2

REPUBLIC OF NAMIBIA
ENVIRONMENTAL MANAGEMENT ACT, 2007

(Section 39)

APPLICATION FOR AMENDMENT OF CONDITIONS OF ENVIRONMENTAL
CLEARANCE CERTIFICATE

Revenue
stamp or
revenue
franking
machine
impression

A. PARTICULARS OF APPLICANT

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B. PARTICULARS OF CURRENT ENVIRONMENTAL CLEARANCE CERTIFICATE

1. Name of current holder of Environmental Clearance Certificate:
Oranjemund Town Council
2. Date of Issue of current Environmental Clearance Certificate:
12 April 2019

PART C PROPOSED AMENDMENTS TO THE CONDITIONS IN CURRENT**1. Condition(s) on the Current Environmental Clearance Certificate:**

The current environmental clearance certificate includes the following activities:

- Subdivision of Erf 1730, Oranjemund Extension 5 and creation of Street, //Karas region

2. Proposed Amendment(s):

It is proposed that the following activities be included in the ECC:

- Subdivision of Erf 1730, Oranjemund Extension 5;
- Subdivision of Portion 184 (a portion of the Farm Oranjemund Townlands No, 165) into Portions A, B and the Remainder;
- Reservation of Erf A (a Portion of Erf 1730) and Portion B (a Portion of Portion 184) as a "Street".

3. Reason for Amendment(s):

During the formalisation of the town layout, the subject road leading to the NAMDEB mine was not accommodated within the town layout. As such it has resulted in sections of the road being planned over Erf 1730 Oranjemund Extension 5 and Portion 184 (a portion of the Farm Oranjemund Townlands No, 165). The Oranjemund Town Council intends to sell portions of the subject erf to private individuals, but this is not possible due to the road which encroaches onto Erf 1730 Oranjemund Extension 5 and Portion 184 (a portion of the Farm Oranjemund Townlands No, 165). The Oranjemund Town Council intends to correct this situation as part of Council's efforts to rectify and sell properties within the town.

Environmental Clearance was however only granted for the Subdivision of Erf 1730 Oranjemund Extension 5 and the creation of street on Portion A (a portion of Erf 1730). As such the proponent wishes to align the town layout with the existing situation on the ground and include the subdivision of Portion 184 (a portion of the Farm Oranjemund Townlands No, 165) into Portions A, B and the Remainder and reservation of Portion B (a Portion of Portion 184) as a street.

4. Describe the environmental changes arising from the proposed amendment(s):

The proposed development will not result in any additional environmental changes and/or impacts as the road is an existing road. The application only aims to rectify an existing situation on the ground.

5. Describe how the environment and the community might be affected by the proposed amendment(s):

The proposed development will not result in any additional community impacts as the road is an existing road. The application only aims to rectify an existing situation on the ground.

6. Describe how and to what extent the environmental performance requirements set out in the assessment report previously approved or activity profile previously submitted for this activity may be affected:

An updated Environmental Management Plan is attached to this submission and authorisation is to be granted on condition of the implementation of the EMP to ensure that regular environmental monitoring and compliance is ensured.

7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental effect arising from the proposed amendment(s):

These have been considered and are outlined within the attached updated EMP.

PART D DECLARATION BY APPLICANT

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong or incomplete.



Signature of Applicant

Stephanie Strauss
Full Name in Block Letters

EAP
Position

on behalf of Oranjemund Town Council

19 February 2021

Date

ANNEXURE 2
FEES

1. The fees set out in this Annexure are payable in terms of the Act.
2. Payments must be made as prescribed in regulation 29.

FEES

Item	Fee payable for	Fees Payable N\$
1	Issue of environmental clearance certificate	300
2	Application for amendment of environmental clearance certificate	300
3	Application for transfer of environmental clearance certificate	1000
4	Appeal application	1000

Environmental Management Plan for:

February 2021

*Subdivision of Erf 1730, Oranjemund
Extension 5; Subdivision of portion
184 (a portion of Farm Oranjemund
Townlands No 165) into Portions
A, B and the Remainder;
Reservation of Erf A (Portion of Erf
1730) and Portion B (a Portion of
184) as a “Street”*



APP-002358

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PROJECT STATUS

Title	Environmental Management Plan for the: <ul style="list-style-type: none"> • Subdivision of Erf 1730, Oranjemund Extension 5; • Subdivision of Portion 184 (a portion of the Farm Oranjemund Townlands No, 165) into Portions A, B and the Remainder; • Reservation of Erf A (a Portion of Erf 1730) and Portion B (a Portion of Portion 184) as a "Street". 		
Report Status	Final		
SPC Reference	W/19008		
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Report date	February 2021		
	Name	Signature	Date
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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
NHCN	National Heritage Council of Namibia
Reg.	Regulation
S	Section
TB	Tuberculosis

1 INTRODUCTION

The Oranjemund Town Council hereinafter referred to as the proponent intends to carry out the following activity:

- **Subdivision of Erf 1730, Oranjemund Extension 5;**
- **Subdivision of Portion 184 (a portion of the Farm Oranjemund Townlands No, 165) into Portions A, B and the Remainder;**
- **Reservation of Erf A (a Portion of Erf 1730) and Portion B (a Portion of Portion 184) as a “Street”.**

The above are listed activities in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

An Environmental Management Plan (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 these developments:

- Operation and Maintenance – the period during which the road will be fully functional and maintained.

The decommissioning of these developments is not envisaged; however in the event that this should be considered some recommendations have been outlined in **Table 4-3**.

2 PROPOSED DEVELOPMENTS

2.1 Erf 1730, Oranjemund Extension 5

Erf 1730 is situated within the residential neighbourhood of Oranjemund Extension 5 and measures 7024 m² in extent. Portion 184 (a portion of the Farm Oranjemund Townlands No, 165) is located adjacent to Erf 1730, Oranjemund Extension 5 as well as Oranjemund Extensions 6 and 8 and measures 50, 1364 hectares in extent. Please refer to below locality map (**Figure 1**).

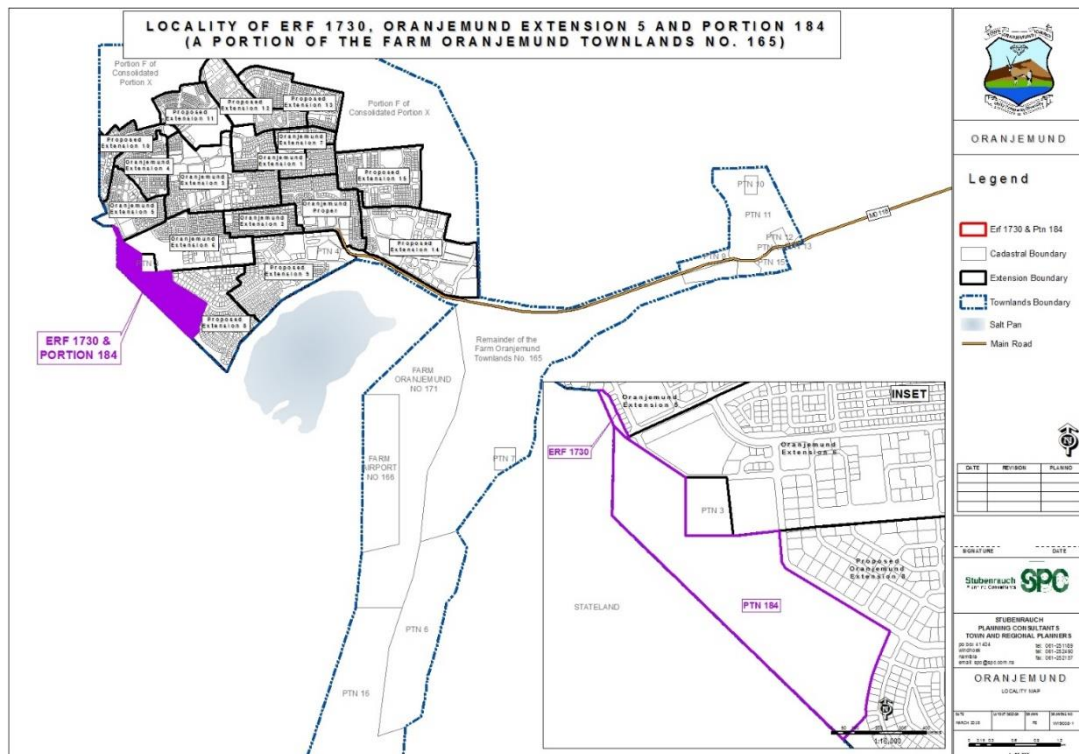


Figure 1: Locality Map of Erf 1730, Oranjemund Extension 5 and Portion 184 (A Portion of the Farm Oranjemund Townlands No 165)

During the formalisation of the town layout, the subject road leading to the NAMDEB mine was not accommodated within the town layout. As such it has resulted in sections of the road being planned over Erf 1730 Oranjemund Extension 5 and Portion 184 (a portion of the Farm Oranjemund Townlands No, 165). The Oranjemund Town Council intends to sell portions of the subject erf to private individuals, but this is not possible due to the road which encroaches onto Erf 1730 Oranjemund Extension 5 and Portion 184 (a portion of the Farm Oranjemund Townlands No, 165). The Oranjemund Town Council intends to correct this situation as part of Council’s efforts to rectify and sell properties within the town. Blocks of apartments have been erected on Erf 1730, Oranjemund Extension 5, whilst Portion 184 (A portion of the Farm Oranjemund Townlands No. 165) accommodates sewerage works that has been fenced off as seen in **Figure 2** below.

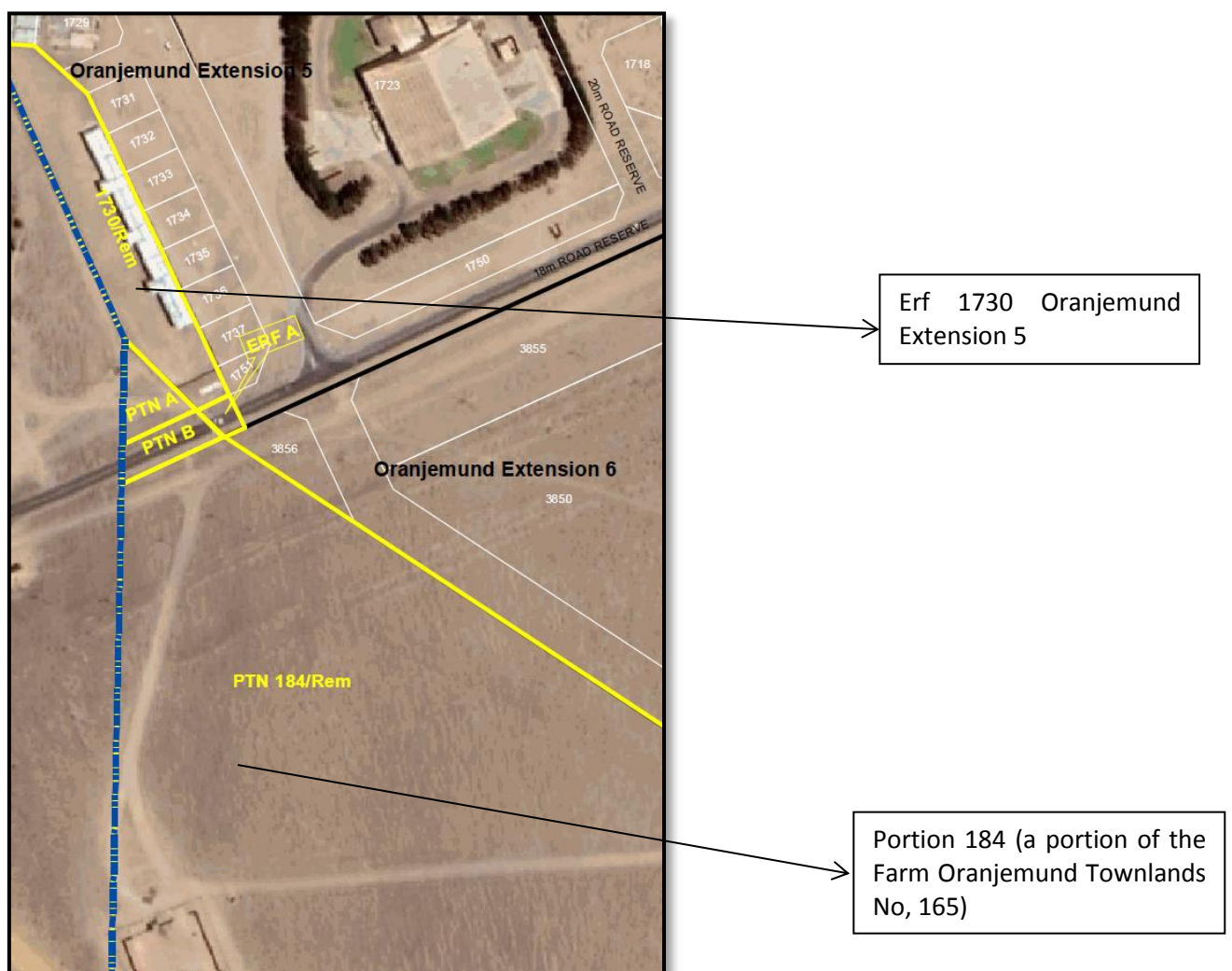


Figure 2: Aerial Map

3 ROLES AND RESPONSIBILITIES

The proponent (Oranjemund Town Council) is ultimately responsible for the implementation of the EMP, from the planning and design phase to the decommissioning phase (if these developments are in future decommissioned) of these developments. The proponent 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:

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

3.1 COUNCIL'S REPRESENTATIVE

The Oranjemund Town Council should assign the responsibility of managing all aspects of these developments for all development phases (including all contracts for work outsourced) to a designated member of staff, referred to in this EMP as the Council's representative (CR). The Oranjemund Town Council may decide to assign this role to one person for the full duration of these developments, or may assign a different CR 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 CR's responsibilities are as follows:

Table 3-1 Responsibilities of CR

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

3.2 ENVIRONMENTAL CONTROL OFFICER

The CR should assign the responsibility of overseeing the implementation of the whole EMP on the ground during the operation and maintenance phases to a designated member of staff, referred to in this EMP as the Environmental Control Officer (ECO). The CR/Oranjemund Town Council may decide to assign this role to one person for both phases, or may assign a different ECO for each phase. The ECO will have the following responsibilities during the operation and maintenance phases of these developments:

- Management and facilitation of communication between the Oranjemund Town Council, CR, the contractors, and Interested and Affected Parties (I&APs) with regard to this EMP;
- Conducting site inspections (recommended minimum frequency is biannually) of all 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 CR on the removal of person(s) and/or equipment not complying with the provisions of this EMP;
- Making recommendations to the CR 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.

3.3 CONTRACTOR

Contractors appointed by the Oranjemund Town Council 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 4-2** applies to contractors 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 operation and maintenance work.

The tables in the following chapter (**Chapter 4**) detail the management measures associated with the roles and responsibilities that have been laid out in this chapter.

4 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 the significance of these impacts.

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

- Applicable legislation (**Table 4-1**);
- Operation and maintenance phase management actions (**Table 4-2**); and
- Decommissioning phase management actions (**Table 4-3**).
- The proponent should assess these **commitments** in detail and should acknowledge their commitment to the specific management actions detailed in the tables below.

4.1 ASSUMPTIONS AND LIMITATIONS

This EMP has been drafted with the acknowledgment of the following assumptions and limitations:

- This EMP has been drafted based on the scoping-level Environmental Assessment (EA) conducted for the proposed subdivision. SPC will not be held responsible for the potential consequences that may result from any alterations to the above-mentioned layout.
- It is assumed that construction labourers will be sourced mostly from the Oranjemund townlands area and that migrant labourers (if applicable) will be housed in established accommodation facilities within Oranjemund.
- No engineering designs have been carried out for the development of the associated services infrastructure (roads, potable water, storm water, sewerage and electrical reticulations).

4.2 APPLICABLE LEGISLATION

Legal provisions that have relevance to various aspects of these developments are listed in **Table 4-1** below. The legal instrument, applicable corresponding provisions and project relevance details are provided.

Table 4-1: Legal provisions relevant to the proposed development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	<p>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.”</p> <p>Article 95(l) deals with the “maintenance of ecosystems, essential ecological processes and biological diversity” and sustainable use of the country’s natural resources.</p>	Sustainable development should be at the forefront of this development.
Environmental Management Act No. 7 of 2007 (EMA)	<p>Section 2 outlines the objective of the Act and the means to achieve that.</p> <p>Section 3 details the principle of Environmental Management</p>	The development should be informed by the EMA.
EIA Regulations GN 28, 29, and 30 of EMA (2012)	<p>GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate.</p> <p>GN 30 provides the regulations governing the environmental assessment (EA) process.</p>	<p>Activity 10.1 (b) The construction of public roads.</p> <p>Activity 10.2 (a) The route determination of roads and design of associated physical infrastructure where it is a public road.</p>
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.
Water Act No. 54 of 1956	Section 23(1) deals with the prohibition of pollution of	The pollution of water resources should be avoided during

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	underground and surface water bodies.	construction and operation of the development.
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 migrant construction workers interact with local communities.
Township and Division of Land Ordinance 11 of 1963	The Townships and Division of Land Ordinance regulates subdivisions of portions of land falling within a Local Authority area	In terms of Section 19 such applications is to be submitted to the Townships Board
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.	The development has to comply with 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.
National Heritage Act No. 27 of 2004	The Act is aimed at protecting, conserving and registering places and objects of heritage significance.	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.
Roads Ordinance 17 of 1972	<ul style="list-style-type: none"> • Section 3.1 deals with width of proclaimed roads and road reserve boundaries • Section 27.1 is concerned with the control of traffic on urban trunk and main roads • Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads 	Adhere to all applicable provisions of the Roads Ordinance.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	<ul style="list-style-type: none"> Section 37.1 deals with Infringements and obstructions on and interference with proclaimed roads. 	
Public and Environmental Health Act of 2015	This Act (GG 5740) provides a framework for a structured uniform public and environmental health system in Namibia. It covers notification, prevention and control of diseases and sexually transmitted infections; maternal, ante-natal and neo-natal care; water and food supplies; infant nutrition; waste management; health nuisances; public and environmental health planning and reporting. It repeals the Public Health Act 36 of 1919 (SA GG 979).	Contractors and users of the proposed development 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.
Water Quality Guidelines for Drinking Water and Wastewater Treatment	Details specific quantities in terms of water quality determinants, which waste water should be treated to before being discharged into the environment (see Appendix B).	These guidelines are to be applied when dealing with water and waste treatment
Environmental Assessment Policy of Namibia (1995)	The Policy seeks to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process, and that the term ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.	This EIA considers this term of Environment.

4.4 OPERATION AND MAINTENANCE PHASE

The management actions included in **Table 4-2** below apply during the operation and maintenance phase of these developments.

Table 4-2: Operation and maintenance management actions

Environmental Feature	Impact	Management Actions	Person Responsible
EMP training	Lack of EMP awareness and the implications thereof	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.	Contractor
Water	Surface and groundwater contamination	Ensure that surface run-off water accumulating on-site are channeled and captured through a proper storm water management system to be treated in an appropriate manner before disposal into the environment.	Proponent, Contractor,
Aesthetics	Visual impacts	The proponent should consult with a view to incorporate the relevant local/national/international development guidelines which addresses the following: <ul style="list-style-type: none"> • The incorporation of indigenous vegetation into road development. • To mark the area with appropriate road warning signs (e.g. the road curves to the left/right) 	Proponent
Noise	Noise nuisance impact	The proponent should consult with the view to incorporate the relevant local/national/international guidelines to manage the generation of traffic noise in the development area.	Proponent

4.5 DECOMMISSIONING PHASE

The decommissioning of these developments is not foreseen as the intended development is envisaged to be permanent. In the event that the existing streets are decommissioned the following management actions should apply.

Table 4-3: Decommissioning phase management actions

Environmental Feature	Impact	Management Actions	Responsible Person
EMP training	Lack of EMP awareness and the implications thereof.	All construction workers are to undergo EMP training that should include as a minimum the following: <ul style="list-style-type: none"> • Explanation of the importance of complying with the EMP. • Discussion of the potential environmental impacts of construction activities. • Employees' roles and responsibilities, including emergency preparedness. • Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities. 	Contractor, CR
Lay-down areas and materials camp	Loss of biodiversity	Suitable locations for the contractors lay-down areas and materials camp should be identified with the assistance of the CR and the following should be considered in selecting these sites: <ul style="list-style-type: none"> • The areas designated for the services infrastructure should be used as far possible. • Second option should be degraded land. • Avoid sensitive areas (e.g. rivers/drainage lines). 	Contractor and CR
Hazardous waste	Contamination of surface and groundwater sources.	<ul style="list-style-type: none"> • All heavy construction vehicles and equipment on site should be provided with a drip tray. 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • All heavy construction vehicles should be maintained regularly to prevent oil leakages. • Maintenance and washing of construction vehicles should take place only at a designated workshop area. 	
Water, Sewage and grey water	Contamination of surface and groundwater sources and water wasting	<ul style="list-style-type: none"> • The wash water (grey water) collected from the cleaning of equipment on-site should not be left standing for long periods of time as this promotes parasite and bacterial proliferation. Grey water should be recycled: <ul style="list-style-type: none"> ○ Used for dust suppression; ○ Used to water a vegetable garden, or to support a small nursery; ○ Used (reused) to clean equipment. • Grey water that is not recycled should be removed on a regular basis. • No dumping of waste products of any kind in or in close proximity to water bodies. • Heavy construction vehicles should be kept out of any 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 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<p>might be leaking from these vehicles.</p> <ul style="list-style-type: none"> • Contaminated runoff from the construction sites should be prevented from entering the surface and ground water bodies. • All materials on the construction site should be properly stored. • Disposal of waste from the sites should be properly managed and taken to the designated landfill site in Oranjemund. • Construction workers should be given ablution facilities at the construction sites that are located at least 30 m away from any surface water and ground water resources and 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. 	
General waste	Visual impact and soil contamination	<ul style="list-style-type: none"> • The road 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. • No waste may be buried or burned. • 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 where practical. 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • A sufficient number of separate bins for hazardous and domestic/general waste must be provided on site. These should be clearly marked as such. • Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. • No waste may remain on site after the completion of the project. 	
Topsoil	Loss of topsoil and associated opportunity costs	<ul style="list-style-type: none"> • When excavations are carried out, topsoil¹ should be stockpiled in a demarcated area. • Stockpiled topsoil should be used to rehabilitate post-construction degraded areas and/or other nearby degraded areas if such an area is located a reasonable distance from the stockpile. 	Contractor
Rehabilitation	Visual impact	<ul style="list-style-type: none"> • Upon completion of the construction phase consultations should be held with the local community/property owner(s) regarding the post-construction use of remaining excavated areas (if applicable). • In the event that no post-construction uses are requested, all excavated/degraded areas need to be rehabilitated as follows: <ul style="list-style-type: none"> ○ Excavated areas 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. ○ Rehabilitated excavated areas need to match the contours of the existing landscape. 	Contractor, CR

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> ○ The rehabilitated area should not be higher (or lower) than nearby drainage channels. This ensures the efficiency of revegetation and reduces the chances of potential erosion. ○ Topsoil is to be spread across excavated areas evenly. ○ Deep ripping of areas to be rehabilitated is required, not just simple scarification, so as to enable rip lines to hold water after heavy rainfall. ○ Ripping should be done along slopes, not up and down a slope, which could lead to enhanced erosion. 	
Road safety	Injury or loss of life	<ul style="list-style-type: none"> ● Demarcate roads clearly. ● Off-road driving should not be allowed. ● All vehicles that transport materials to and from the site must be roadworthy. ● Drivers that transport materials should have a valid driver’s license and should adhere to all traffic rules. ● Loads upon vehicles should be properly secured to avoid items falling off the vehicle. 	Contractor
Safety around work sites	Injury or loss of life	<ul style="list-style-type: none"> ● Excavations should be left open for the shortest time possible. ● Excavate short lengths of trenches and box areas for services or foundations in a manner that will not leave the trench unattended for more than 24 hours. ● Demarcate excavated areas and topsoil stockpiles with danger tape. 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • All building materials and equipment are to be stored only within set out and demarcated work areas. • Only road construction personnel will be allowed within these work areas. • Comply with all waste related management actions stated above in this table. 	
Ablutions	Non-compliance with Health and Safety Regulations	<ul style="list-style-type: none"> • Separate toilets should be available for men and women and should clearly be indicated as such. • Portable toilets (i.e. easily transportable) should be available at every construction site: <ul style="list-style-type: none"> ○ 1 toilet for every 15 females. ○ 1 toilet for every 30 males. ○ Sewage needs to be removed on a regular basis to an approved (municipal) sewage disposal site in Oranjemund. Alternatively, sewage may be pumped into sealable containers and stored until it can be removed. ○ Workers responsible for cleaning the toilets should be provided with environmentally-friendly detergents, latex gloves and masks. 	Contractor
Open fires	Injury or loss of life	<ul style="list-style-type: none"> • No open fires may be made anywhere on site. 	Contractor
General health and safety	Injury or loss of life	<ul style="list-style-type: none"> • A fully stocked first aid kit should permanently be available on-site as well as an adequately trained member of staff capable of administering first aid. 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • All workers should have access to the relevant personal protective equipment (PPE). • Sufficient potable water reserves should be available to workers at all times. • No person should be allowed to smoke close to fuel storage facilities or portable toilets (if toilets are chemical toilets – the chemicals are flammable). • No workers should be allowed to drink alcohol during work hours. • No workers should be allowed on site if under the influence of alcohol. • Building rubble and domestic waste should be stored in skips. • Condoms should be accessible/available to all construction workers. • Access to Antiretroviral medication should be facilitated. 	
Dust	Nuisance and health impacts	<ul style="list-style-type: none"> • A watering truck should be used on gravel roads with the most heavy vehicle movement especially during dry and windy conditions. However, due consideration should be given to water restrictions during times of drought. • The use of waterless dust suppression means (e.g. lignosulphonate products such as Dustex) should be considered. • Cover any stockpiles with plastic to minimise windblown dust. • Dust protection masks should be provided to workers if they complain about dust. 	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
Noise	Nuisance impacts	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. If an exception to this provision is required, all residents within the 500 m radius should be given 1 week's written notice.	Contractor
Recruitment of labourers	Negative conflict regarding recruitment	<p>The Contractor should compile a formal recruitment process including the following provisions as a minimum:</p> <ul style="list-style-type: none"> • Adhere to the legal provisions in the Labour Act for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.). • Recruitment should not take place at construction sites. • Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside these agreed upon procedures. • Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those who are qualified and from the Oranjemund project area and only then look to surrounding towns. • Clearly explain to all job-seekers the terms and conditions of their respective employment contracts (e.g. period of employment etc.) – make use of interpreters where necessary. 	Contractor
Communication plan	Negative conflict with I&APs	The Contractor or proponent should draft a Communication Plan, which should outline as a minimum the following:	Contractor

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • How Interested and Affected Parties (I&APs), who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records. • How these I&APs will be consulted on an ongoing basis. • Make provision for grievance mechanisms – i.e. how concerns can be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event that feedback is deemed unsatisfactory. 	
General communication	Negative conflict with I&APs	<ul style="list-style-type: none"> • The CR must appoint an ECO to liaise between the Contractor, I&APs, Developer. • The Contractor shall at every monthly site meeting report on the status of the implementation of all provisions of the EMP. • The Contractor should implement the EMP awareness training as stipulated above in this table. • The Contractor must list the I&APs of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the Communication Plan must be agreed upon and given to the CR before construction commences. • The Communication Plan, once agreed upon by the Developer, shall be legally binding. • All communication with the I&APs must take place through the ECO. 	Contractor, ECO, CR

Environmental Feature	Impact	Management Actions	Responsible Person
		<ul style="list-style-type: none"> • A copy of the EMP must be available at the site office and should be accessible to all I&APs. • 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. • The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences. • A procedure should be put in place to ensure that concerns raised have been followed-up and addressed. • All people on the I&APs list should be informed about the availability of the complaints register and associated grievance mechanisms in writing by the CR prior to the commencement of construction activities. 	