ENVIRONMENTAL AND SOCIAL MANAGEMENT (ESMP)

THIS ESMP IS PREPARED TO SUPPORT AN APPLICATION (APP No: 06593) FOR THE ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC) FOR THE PROPOSED:

TOWNSHIP ESTABLISHMENT OF EVULULUKO EXTENSION 3 ON ERF 5165 (A PORTION OF ERF 3122), OSHAKATI, OSHANA REGION, NAMIBIA

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1. BACKGROUND AND INTRODUCTION

1.1. Background

It is generally postulated that preparation of an **Environmental and Social Impact Assessment** Reports for any project is not sufficient to protect the environment because it is possible that the proponent may, willingly or unwillingly, deviate away from the project scope.

Therefore, the Environmental Management Act (No. 7 of 2007) has put in place another measure to mitigate this limitation. This measure requires the proponent to develop an ESMP:

- The ESMP is a **legally binding document** intended to guide the proponent to not **deviate away from the original project scope**.

1.2. Introduction

This **Environmental and Social Management Plan** (ESMP) for the proposed establishment of Evululuko Township Extension 3 outlines key mitigation measures, monitoring actions, and management strategies to ensure sustainable operations while minimizing environmental and social impacts. This ESMP is structured to comply with national regulatory frameworks and international best practices.

During preparation of the ESIA Report, **4 key phases** involved in establishment of Evululuko Township were identified as follows:

A) Planning, Assessment and Stakeholder Engagement

B) Legal and Tenure Formalization

C) Infrastructure and Physical Upgrading

D) Socio-Economic and Institutional Development

1.3. Rationale and Objective

The rationale was to comply with the Environmental Management Act (No. 7 of 2007) and its 2012 regulations. Specific objectives were to:

- Ensure that environmental factors are incorporated into every stage of the project, and
- Supplement the Environmental and Social Impact Assessment (ESIA), offering a structured approach for ongoing environmental monitoring and assessment.

2. SUMMARY OF ENVIRONMENTAL IMPACTS

2.1. Physical environmental impacts

The following **physical** environmental impacts shall be mitigated:

- **Habitat Loss and Land Alteration:** The construction of new roads, utility trenches (for water, sewer, and electricity), and the creation of formalized plots require extensive **earthworks**, including clearing vegetation and moving large amounts of soil. This permanently changes the topography, can lead to **soil erosion**, and results in the **loss of local biodiversity**.
- **Pollution from Construction:**
    - **Air Pollution:** Generated by construction vehicles, heavy machinery, and **dust** from earth-moving and grading activities.
    - **Water Pollution:** Sediment-laden runoff from construction sites can contaminate local streams or drainage systems. Chemicals and fuels from equipment also pose a risk to surface and groundwater.
- **Resource and Waste Generation:** This phase demands significant raw materials (cement, aggregates, steel, piping) and energy. It also generates a large volume of **construction and demolition waste (C&D waste)**, which must be managed properly to avoid environmental contamination.

2.2. Social environmental impacts

The following social environmental impacts shall be mitigated:

- **Community Capacity Building:** Training community members to manage services, participate in local governance structures, and maintain the new infrastructure.
- **Financial and Economic Integration:** Linking residents to low-cost housing finance (like the National Housing Enterprise or Revolving Funds), micro-finance institutions, and business development support to stimulate the local economy.
- **Revenue Collection Systems:** Establishing mechanisms for the municipality to collect rates and taxes for the newly provided services, ensuring financial sustainability for the local authority.
- **Housing Upgrading:** Supporting residents to progressively upgrade or construct formal houses on their newly formalized plots, often through collaborative projects.

3. MITIGATION OF PHYSICAL ENVIRONMENTAL IMPACTS

The mitigation measures for the **Infrastructure and Physical Upgrading** phase shall focus on controlling pollution, managing resources, and protecting the integrity of the land.

3.1. Land Disturbance and Erosion Control

- The key is to minimize the extent and duration of exposed soil.

Mitigation Measure	Implementation Action (Contractor)
Phased Construction	**Limit the area of exposure.** Clear and excavate only the minimum area required for the immediate work (e.g., trenching for one section of pipeline), then stabilize that area before moving to the next.
Erosion and Sediment Control (ESC)	Install **silt fences**, **sediment traps**, or **check dams** downslope of all disturbed areas (e.g., trench lines, soil stockpiles) to filter runoff and capture sediment before it leaves the site or enters drainage channels.
Soil Stockpile Management	Place topsoil stockpiles away from drainage lines and waterways. Cover them with **tarps or plastic sheeting** and surround them with temporary ESC barriers (e.g., sandbags or silt fencing).
Site Stabilization	Immediately **re-vegetate** or cover exposed, non-working areas (e.g., finished road verges) with mulch, hydro-seeding, or **erosion control blankets** as soon as possible after construction is complete.
Access Control	Designate a single, gravel-surfaced **construction entrance/exit** and use a tire wash system (if practical) or rumble strips to prevent mud and sediment from being tracked onto public roads.

3.2. Water Quality and Hydrology

- The goal is to prevent pollutants from entering the water table or surface water features.

Mitigation Measure	Implementation Action (Contractor)
Stormwater Management	**Preserve natural drainage patterns** where possible. Construct temporary **diversion berms or swales** upstream of the worksite to direct clean stormwater runoff around the disturbed area.
Sanitation and Waste Water	Use **mobile chemical toilets** for the construction crew. Ensure regular emptying by a licensed waste contractor and prohibit the discharge of greywater (washing water) onto the ground or into storm drains.
Cement and Concrete Washout	Establish a dedicated, lined, **impermeable concrete washout area** far from drainage paths. All cement-contaminated water must be contained and disposed of as hazardous waste, not discharged on-site.
Spill Prevention	Develop a formal **Spill Contingency Plan**. Store all fuels, oils, and chemicals in a designated, secure area (e.g., a locked container) on an **impermeable bunded surface** to prevent soil contamination.

3.3. Air Quality and Noise

- These measures address dust, vehicle emissions, and noise from heavy equipment.

Mitigation Measure	Implementation Action (Contractor)
Dust	Implement a regular **dust control program**, especially during dry and windy

Mitigation Measure	Implementation Action (Contractor)
Suppression	periods. This involves regularly **wetting exposed soil and access roads** with water (conservatively, where water is scarce) and restricting vehicle speeds on-site.
Vehicle Maintenance	Ensure all construction vehicles and machinery are **well-maintained** and fitted with the required emission control and silencing equipment. Prohibit unnecessary idling of engines.
Noise Management	**Restrict noisy activities** (e.g., breaking concrete, heavy vehicle operation) to **daytime working hours** defined in the ESMP, typically between 7:00 AM and 5:00 PM, especially near existing residences.

3.4. Waste and Resource Management

- This involves minimizing waste generation and maximizing reuse/recycling.

Mitigation Measure	Implementation Action (Contractor)
Construction Waste Management Plan	Develop and implement a formal plan based on the **'3Rs' Hierarchy: Reduce, Reuse, Recycle**.
Waste Segregation	Set up **clearly labeled, segregated bins** on-site for different waste streams: general waste, recyclable materials (e.g., cardboard, metals), and hazardous waste (e.g., oil filters, paint).
Reuse of Materials	**Crush and reuse excess excavated material** (e.g., concrete and rock) as sub-base fill for the new roads and sidewalks, minimizing the need to import

Mitigation Measure	Implementation Action (Contractor)
	virgin aggregate.
Responsible Disposal	Ensure all non-recyclable or non-reusable waste is transported by **licensed haulers** and disposed of at a **registered and permitted municipal landfill**. Provide proof of safe disposal (manifests/receipts).

4. MITIGATION OF SOCIAL ENVIRONMENTAL IMPACTS

4.1. Community Health, Safety, and Disturbance

Social Impact	Mitigation Measure	Implementation Action (Contractor)
Safety and Accidents	**Site Security and Fencing**	Secure all working areas, deep excavations (e.g., trenching for sewer lines), and material stockpiles with adequate fencing, safety tape, and visible warning signs (in local languages).
Child Safety	**Safety Induction and Awareness**	Conduct regular safety talks for the community, specifically warning parents and children about the dangers of construction sites, heavy machinery, and unattended trenches/pits.
Access Restriction	**Maintain Pedestrian and Vehicular Access**	Ensure residents can still access their homes, schools, and essential services (e.g., clinics). Use temporary bridges or planks over trenches and provide clear, well-marked alternative routes.
Utilities Disruption	**Minimize Service Interruption**	Plan tie-ins and service cuts (e.g., water interruptions) for the least disruptive times (e.g., early morning or off-peak hours) and provide at least 48 hours advance notice to affected households.

4.2. Local Employment and Economic Benefits

- These measures ensure the project actively supports the local community's economy.

Social Impact	Mitigation Measure	Implementation Action (Contractor)
Job Creation	**Local Hiring Policy**	Implement a formal policy prioritizing the hiring of unskilled and semi-skilled labor from the **Evululuko community** and surrounding informal settlements.
Skills Development	**On-the-Job Training**	Where possible, provide on-the-job training and mentorship to local workers to enhance their skills (e.g., pipe-laying, brick-making, safety practices), improving their future employability.
Local Procurement	**Support Local Businesses**	Prioritize the purchase of non-specialized goods and services (e.g., catering, security, smaller materials like aggregates) from registered local suppliers and small businesses within the township.

4.3. Communication, Grievance, and Conflict Management

- A clear system for communication is essential for managing expectations and resolving issues quickly.

Social Impact	Mitigation Measure	Implementation Action (Contractor/Oshakati Town Council)
Community Relations	**Dedicated Liaison Officer**	Appoint a **Community Liaison Officer (CLO)**, ideally a resident or someone trusted by the community, as the single point of contact between the contractor, municipality, and the residents.
Grievance Redress Mechanism (GRM)	**Formal Complaints Procedure**	Establish a transparent, accessible, and easily understandable **GRM**. This should include various ways to submit complaints (e.g., suggestion box, WhatsApp, phone number, CLO) and guaranteed response and resolution timelines.
Information	**Regular**	Hold regular (e.g., monthly) community meetings, utilize local media (radio, flyers, notice boards), and use the CLO

Social Impact	Mitigation Measure	Implementation Action (Contractor/Oshakati Town Council)
Dissemination	**Updates**	to provide updates on construction progress, planned disruptions, and hiring opportunities.

4.4. Relocation and Land Rights (If Applicable)

- In upgrading Evululuko informal settlement, internal relocation might be necessary for infrastructure alignment (re-blocking).

Social Impact	Mitigation Measure	Implementation Action (Oshakati Town Council)
Minimizing Displacement	**In-situ Priority**	Design the infrastructure layout to ensure the **minimum possible number of households** need to be relocated.
Fair Compensation	**Resettlement Action Plan (RAP)**	If relocation is unavoidable, develop and execute a Comprehensive **Resettlement Action Plan** that aligns with national laws and international standards (if applicable). This must involve full consultation and fair compensation (e.g., provision of a fully serviced alternative plot) **before** construction begins.

5. ENVIRONMENTAL CERTIFICATIONS AND DOCUMENTATIONS

To ensure that all construction activities align with legal and environmental requirements, the necessary permits and approvals must be secured before any work begins. These regulatory documents will grant formal authorization for housing construction while outlining the legal framework governing the project.

Table 1: *Required Permits and Authorizations.*

Certification and documentation	Institution / Competent Authority	Contact person / details
Environmental clearance certificate (ECC)	Ministry of Environment, Forestry and Tourism	Environmental Commissioner
Domestic and industrial wastewater and effluent discharge permits	Ministry of Agriculture, Water and Rural Development	Department of water Affairs
ESMP and Baseline environmental monitoring plan	Ministry of Environment, Forestry and Tourism	Department of Environmental Affairs

6. MANAGEMENT ACTIONS

The management actions outlined in this chapter of the ESMP aim to prevent potential impacts wherever possible. Where avoidance is not feasible, mitigation measures are provided to minimize the significance of these impacts.

The following tables present the recommended management actions for addressing the potential impacts identified in the Environmental and Social Impact Assessment (ESIA) Report. These actions are structured according to the relevant project phases:

- Applicable legislations ***(Table 3)***
- Planning and design phase management actions ***(Table 4)***
- Construction phase management actions **(Table 5)**
- Operation and maintenance phase management actions **(Table 6)**
- Decommissioning phase management actions **(Table 7)**

The proponent should review these commitments in detail and formally acknowledge their responsibility for implementing the specific management actions outlined in the tables below.

6.1. Assumptions & Limitations

This ESMP has been prepared with the following assumptions and limitations in mind:

- The ESMP is based on the findings of the scoping-level Environmental and Social Impact Assessment (ESIA) conducted for the proposed Township Establishment of Evululuko Extension 3 in the Oshana Region. Consultants accepts no responsibility for any consequences arising from changes made to the approved layout.

- It is assumed that the majority of construction workers will be recruited from the Oshakati town.

6.2. Applicable Legislations

Table 3 below outlines the legal provisions relevant to various aspects of these developments. For each legal instrument, the applicable provisions and their relevance to the project are described.

Table 2: *Legislation applicable to proposed 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	Sustainable development should be at the forefront of this development.

	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.	
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) (Infrastructure)** 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.

Water Act No. 54 of 1956	Section 23(1) deals with the prohibition of pollution of underground and surface water bodies.	The pollution of water resources should be avoided during 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 are to be submitted to NAMPAB and Townships Board respectively.
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	• 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	Adhere to all applicable provisions of the Roads Ordinance.

	trunk and main roads	
	• Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads • 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 wastewater 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.
Water Resources Management Act No. 11 of 2013	Part 12 deals with the control and protection of groundwater Part 13 deals with water pollution control.	The pollution of water resources should be avoided during construction and operation of the development. Should water need to be abstracted, a water abstraction permit will be required from the Ministry of Water, Agriculture and Forestry.
Forest Act 12 of 2001 and Forest Regulations of 2015	To provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to the management and use of forests and forest produce; to provide for the protection of the environment and the control and management of forest fires; to repeal the Preservation of Bees and Honey Proclamation, 1923 (Proclamation No. 1of 1923), Preservation of Trees and Forests Ordinance, 1952 (Ordinance No. 37 of 1952) and the Forest Act, 1968 (Act No. 72 of 1968); and to deal with incidental matters.	Protected tree and plant species as per the Forest Act No 12 of 2001 and Forest Regulations of 2015 may not be removed without a permit from the Ministry of Agriculture, Water and Forestry.
Atmospheric Pollution Prevention Ordinance No 45 of 1965	Part II - control of noxious or offensive gases, Part III - atmospheric pollution by smoke, Part IV - dust control, and	The development should consider the provisions outlined in the act. The proponent should apply for an Air Emissions permit from the Ministry of Health and Social Services (if needed).

	Part V - air pollution by fumes emitted by vehicles.	
Hazardous Substance Ordinance 14 of 1974	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith.	The handling, usage and storage of hazardous substances on site should be carefully controlled according to this Ordinance.
Soil Conservation Act No 76 of 1969	Act to consolidate and amend the law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources	The proposed activity should ensure that soil erosion and soil pollution is avoided during construction and operation.

6.3. Mitigation Measures

All construction activities will be temporary, and any resulting environmental impacts are expected to be minimal. However, the following concerns have been identified as requiring particular attention:

- Dust generation during construction activities
- Existing water shortages in the area

Economic development impacts, including potential effects on local livelihoods.

6.3.1. Risk Preparedness and Response Plan

A risk refers to a potential event that may or may not occur, while an impact is the consequence that follows if the risk materializes. Risks have the potential to significantly affect people, the environment, and property. Although not all risks will occur, it is essential to maintain preparedness throughout both the construction and operational phases of the project.

Risk response actions should be prioritized in the following order:

- Protection of human life (always the highest priority)
- Safeguarding the environment
- Preserving assets and infrastructure

Emergency preparedness and response management follow five key steps:

- Prevention: Implementing proactive measures to eliminate or minimize the likelihood of incidents.
- Mitigation: Taking actions to reduce the severity of potential emergencies by lowering their impact on people, property, and the environment.
- Preparedness: Strengthening readiness to respond when a risk occurs. This includes developing emergency response plans, establishing evacuation procedures, conducting awareness training, and organizing drills to test preparedness.
- Response: Immediate actions taken before, during, and after an emergency to protect lives, reduce economic losses, and provide necessary support. This may involve activating emergency operations, evacuating at-risk personnel, setting up temporary shelters, and ensuring access to emergency medical care.

Recovery: Efforts focused on restoring normal operations and addressing environmental, social, and economic damages. These include debris removal, financial assistance, infrastructure rehabilitation, and ongoing support for affected communities and ecosystems

6.4. Planning and Design Phase

The Developer/Responsible Party (DR) must ensure that the management actions outlined below are implemented and adhered to during the period leading up to the commencement of service infrastructure construction.

Table 3: *Planning and design management actions.*

Receiving Environment	Valued Component	Issue	Mitigation Measure	Performance Indicator	Responsible Party
Land Use Planning	Project Siting	Improper site selection may impact sensitive environments.	Conduct environmental screening and avoid ecologically sensitive areas.	Site selected based on environmental criteria.	Proponent, Town Council, Environmental Consultant

Stakeholder Engagement	Public Participation	Lack of consultation may result in public opposition or conflict.	Conduct stakeholder meetings and incorporate feedback into project design.	Record of meetings and feedback integration.	Proponent, Consultant, Town Council
Design Considerations	Infrastructure Layout	Inadequate design may increase future environmental impacts.	Incorporate environmental criteria in the layout and service routes.	Environmentally sensitive designs approved.	Design Engineer, Proponent, ECO

6.5. Construction Phase

The management actions outlined in Table 5 are applicable during the construction phase. This table can serve as a guide for developing ESMPs for other construction activities within these development areas.

Table 4: *Construction phase management actions.*

Receiving Environment	**Issue**	**Mitigation Measure**	**Responsible Party**
Site clearing and excavations	Soil erosion and disturbance of topsoil	Implement phased site clearing and excavations. Avoid excessive clearance. Stockpile topsoil separately and preserve for rehabilitation.	Contractor / Proponent / Environmental Consultant
Construction machinery and equipment	Soil and groundwater contamination due to oil/fuel spills or leakages	Inspect machinery regularly for leaks. Use drip trays. Refuel in designated areas with containment measures.	Contractor / Proponent
Construction waste generation	Littering, pollution, and habitat degradation	Provide skip bins. Separate hazardous and non-hazardous waste. Transport waste to appropriate disposal facilities.	Contractor / Waste disposal company
Noise from construction activities	Disturbance to surrounding residents and businesses	Limit noisy activities to daytime hours. Use equipment with silencers. Notify nearby residents of construction schedule.	Contractor / Proponent

Dust generation	Air pollution and respiratory issues for workers and residents	Water exposed surfaces. Cover trucks transporting loose materials. Use dust suppressants as needed.	Contractor
Employment and skills development	Job creation and local economic stimulation	Prioritize hiring of local labour. Provide necessary training and fair wages.	Proponent / Contractor
Material sourcing and transportation	Depletion of natural resources, traffic congestion, road degradation	Source materials sustainably. Schedule deliveries to avoid peak traffic. Maintain vehicles in good condition.	Contractor / Suppliers

6.6. Operation & Maintenance Phase

The management actions outlined in Table 6 apply to the operation and maintenance phase of the development.

Table 5: *Operation and maintenance management actions.*

Receiving Environment	**Valued Component**	**Issue**	**Mitigation Measure**	**Performance Indicator**	**Responsible Party**
Infrastructure Functionality	Service Delivery	Service failures may affect residents.	Regular maintenance schedule and monitoring.	Service reliability reports submitted.	Proponent, Local Authority
Public Health	Wastewater and Refuse	Improper waste handling can pose health risks.	Ensure regular waste collection and wastewater treatment.	Health and sanitation reports maintained.	Local Council, Service Provider
Energy Use	Efficiency	Ongoing energy consumption.	Promote energy-efficient appliances and operations.	Energy usage monitored and optimized.	Proponent, Maintenance Contractor

6.7. Decommissioning Phase

The decommissioning of these developments is not anticipated, as the infrastructure is intended to

serve as a permanent installation. However, if decommissioning does occur in the future, the following management actions should be implemented:

Table 6: *Decommissioning phase management actions.*

Receiving Environment	Valued Component	Issue	Mitigation Measure	Performance Indicator	Responsible Party
Site Deconstruction	Land & Built Environment	Deconstruction may cause dust, noise, and debris.	Follow construction-phase mitigation; use PPE and plan removals safely.	Compliance with deconstruction best practices.	Proponent, Contractor, ECO
Rehabilitation	Soil & Vegetation	Site left bare and eroded post-decommissioning.	Rehabilitate and revegetate site using native species.	Percentage of site successfully rehabilitated.	Proponent, Contractor, ECO
Vegetation Conservation	Flora Diversity	Loss of protected or listed trees.	Retain trees where possible; obtain permits for removal.	Permits secured; tree register maintained.	Proponent, Forestry Department, Town Council

7. GRIEVANCE MECHANISM

A structured grievance mechanism shall be implemented to address complaints from employees, community members, and other stakeholders. The grievance mechanism shall be guided by the following principles:

7.1. Timely Action

Grievances shall be addressed promptly to prevent escalation and minimize disruptions to project activities.

7.2. Accepting the Grievance

All grievances shall be formally acknowledged and recorded. Acceptance does not imply agreement

but rather a commitment to investigate and resolve issues.

7.3. Identifying the Problem

Grievances may arise from real or perceived issues. It is crucial to diagnose the root cause accurately.

7.4. Collecting Facts and Analyzing Causes

A structured investigation will be conducted, separating facts from emotions, to determine the best course of action.

7.5. Decision-Making and Implementation

A resolution will be developed based on factual analysis, and the agreed course of action shall be implemented efficiently.

7.6. Appeal Process

In the event of an unsatisfactory resolution, complainants may escalate their concerns through appropriate channels.

8. EXTERNAL COMMUNICATIONS

All external communications regarding the project will be managed in accordance with established company protocols. Interactions with stakeholders, public consultations, and media engagement will follow structured procedures to ensure transparency and accuracy in information dissemination.

9. REPORTING

Regular environmental monitoring and baseline data assessments will be conducted and reported to the Ministry of Environment, Forestry, and Tourism in compliance with regulatory requirements. These reports will help track environmental conditions, assess the effectiveness of mitigation measures, and ensure adherence to environmental management commitments.