
DRAFT ENVIRONMENTAL MANAGEMENT PLAN

FOR THE CONSTRUCTION OF BULK INFRASTRUCTURE AND PUBLIC ROADS FOR THE FORMALISATION OF ANDREWVILLE EXTENSION 1 – PORTION 19 OF FARM MALTAHÖHE TOWNLANDS NO. 35, MALTAHÖHE, HARDAP REGION, NAMIBIA

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DOCUMENT INFORMATION

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EXECUTIVE SUMMARY

This Environmental Management Plan (EMP) has been prepared for the Andrewville Extension 1 township development, located on Portion 19 of the Remainder of Farm Maltahöhe Townlands No. 35, within Maltahöhe, Hardap Region, Namibia. The project is initiated by the Maltahöhe Village Council and will provide 144 erven zoned for residential, business, institutional, and public open space land uses.

The EMP forms part of the application for an Environmental Clearance Certificate (ECC) in compliance with the Environmental Management Act, 2007 (Act No. 7 of 2007) and its Regulations. The project involves the phased construction of bulk infrastructure, including roads, water supply pipelines, sewer networks, and electricity reticulation.

The project is expected to contribute positively to the socio-economic development of Maltahöhe through:

- Provision of serviced land for formal housing and services;
- Job creation during construction;
- Improved access to water, sanitation, electricity, and roads.

Potential environmental and social impacts have been identified, and mitigation measures are outlined in this EMP, including:

- Dust, noise, and traffic disturbances;
- Temporary pressure on access roads;
- Safety risks for workers and nearby residents;
- Risk of unmanaged construction waste and erosion.

The EMP outlines mitigation strategies, monitoring procedures, and defines the responsibilities of key role players, including the Contractor, Environmental Control Officer (ECO), and the Employer's Representative (ER). It also incorporates training, public engagement, and reporting procedures to ensure compliance and sustainability during both the construction and operational phases.

This EMP is a living document and will be reviewed and updated as the project progresses to reflect changes in scope, site conditions, legislation, or stakeholder input. All amendments must be approved by the Maltahöhe Village Council and, where applicable, the Ministry of Environment, Forestry and Tourism (MEFT) before implementation.

Key Benefits and Compliance Summary:

The Andrewville Extension 1 project will directly support structured urban growth in Maltahöhe, create employment opportunities, and improve essential infrastructure. The EMP has been developed in accordance with Namibian legislation and recognised environmental best practice, ensuring that all potential impacts are identified, managed, and monitored effectively. With active stakeholder engagement, transparent reporting, and strict adherence to mitigation measures, the project can proceed in a manner that delivers long-term social and economic benefits while safeguarding environmental integrity.

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LIST OF ABBREVIATIONS

| | |
|-------------------|---|
| BID – | Background Information Document |
| ECC – | Environmental Clearance Certificate |
| EAP – | Environmental Assessment Practitioner |
| ECO – | Environmental Control Officer |
| EIA – | Environmental Impact Assessment |
| EIA Regulations – | Environmental Impact Assessment Regulations, GN No. 30 of 2012 |
| EMA – | Environmental Management Act, 2007 (Act No. 7 of 2007) |
| EMP – | Environmental Management Plan |
| ER – | Employer’s Representative |
| ESA – | Environmental Scoping Assessment |
| E&S – | Environmental and Social |
| GN – | Government Notice |
| HIV/AIDS – | Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome |
| H&S – | Health and Safety |
| I&AP – | Interested and Affected Party |
| ILO – | International Labour Organization |
| MEFT – | Ministry of Environment, Forestry and Tourism |
| NamPower – | Namibia Power Corporation |
| NamWater – | Namibia Water Corporation |
| NSA – | Namibia Statistics Agency |
| PPE – | Personal Protective Equipment |
| SME – | Small and Medium Enterprise |
| TB – | Tuberculosis |
| UDA – | Urban Dynamics Africa (Pty) Ltd |
| WMP – | Waste Management Plan |

1 INTRODUCTION

The Maltahöhe Village Council is proposing the planning and potential future construction of bulk infrastructure and public roads for the township establishment known as Andrewville Extension 1, located on Portion 19 of the Remainder of Farm Maltahöhe Townlands No. 35, in the Hardap Region, Namibia. The proposed township comprises approximately 144 erven zoned for residential, business, institutional, and public open space land uses. The objective of the project is to support structured urban growth, provide serviced land, and improve socio-economic conditions within Maltahöhe.

This Environmental Management Plan (EMP) has been prepared in support of an application for an Environmental Clearance Certificate (ECC) in terms of the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN No. 30 of 2012). The requirement for an ECC arises from the listed activities associated with the potential future construction of bulk infrastructure and public roads, and not from township establishment itself.

This EMP has been prepared at a planning stage and does not confirm, prescribe, or guarantee the timing, phasing, or full implementation of construction activities. Any construction will be subject to funding availability, municipal decision-making, and the necessary approvals by the Maltahöhe Village Council. The mitigation measures contained in this EMP shall apply only if and when construction activities are undertaken.

During the construction phase, if implemented, the appointed Contractor will be responsible for implementing the provisions of this EMP under the supervision of the Employer's Representative (ER) and an Environmental Control Officer (ECO). Upon completion of construction, the Maltahöhe Village Council will assume responsibility for the operation and maintenance of the installed infrastructure in accordance with applicable municipal and legislative requirements.

2 PROJECT DESCRIPTION

This Environmental Management Plan supports the planning and potential future implementation of bulk infrastructure and public roads required to formalise the Andrewville Extension 1 township layout. The project does not constitute the establishment of a new greenfield township; rather, it will facilitate, if implemented, the regularisation of existing development through approved planning and servicing.

Construction of bulk infrastructure may be implemented in phases or may be deferred, depending on funding availability and municipal priorities. All construction activities, if approved and undertaken, will be required to comply with the mitigation measures and management actions set out in this EMP.

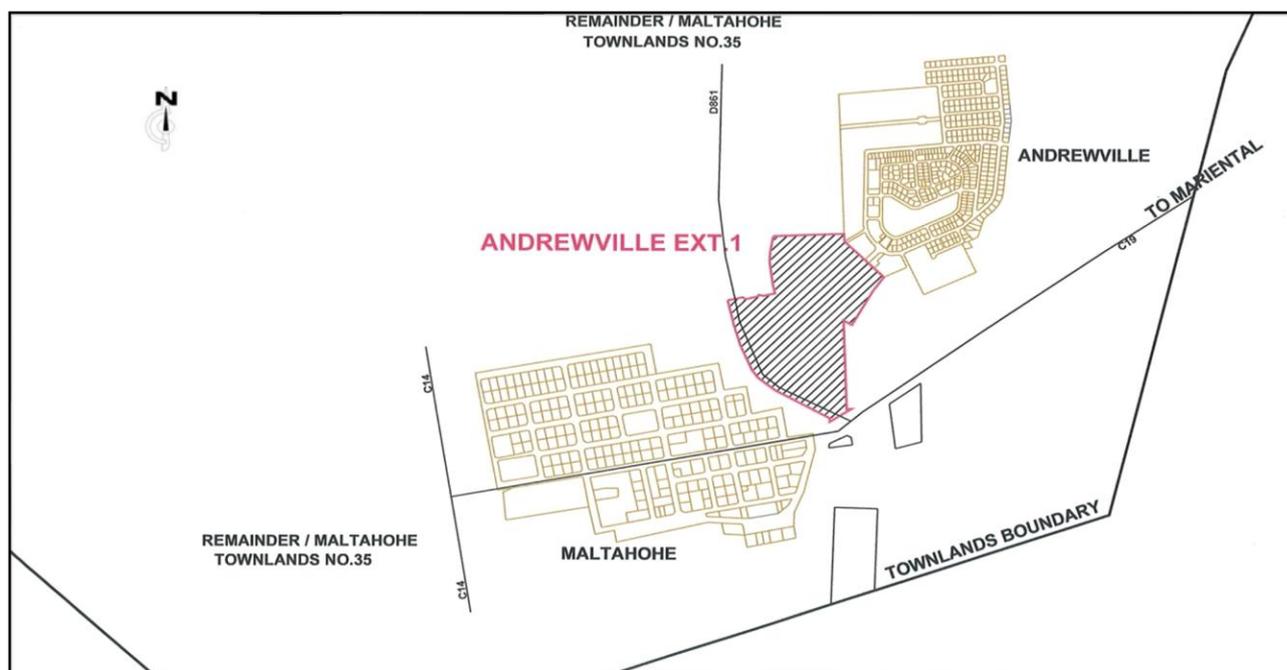
2.1 SUMMARY OF THE SITE

2.1.1 Locality

Andrewville Extension 1 is located on Portion 19 of the Remainder of Farm Maltahöhe Townlands No. 35 (approximate coordinates: -24.83897° S, 16.9842° E), in the Hardap Region, Namibia.

The site lies between the existing Maltahöhe township and the Andrewville area and is strategically positioned to enable integrated urban expansion. The C19 road, which provides access to and from Mariental, runs directly south of the site. The area is accessible via existing public roads and supports planned connectivity with surrounding development areas. Figure 1 shows the locality of the site within Maltahöhe.

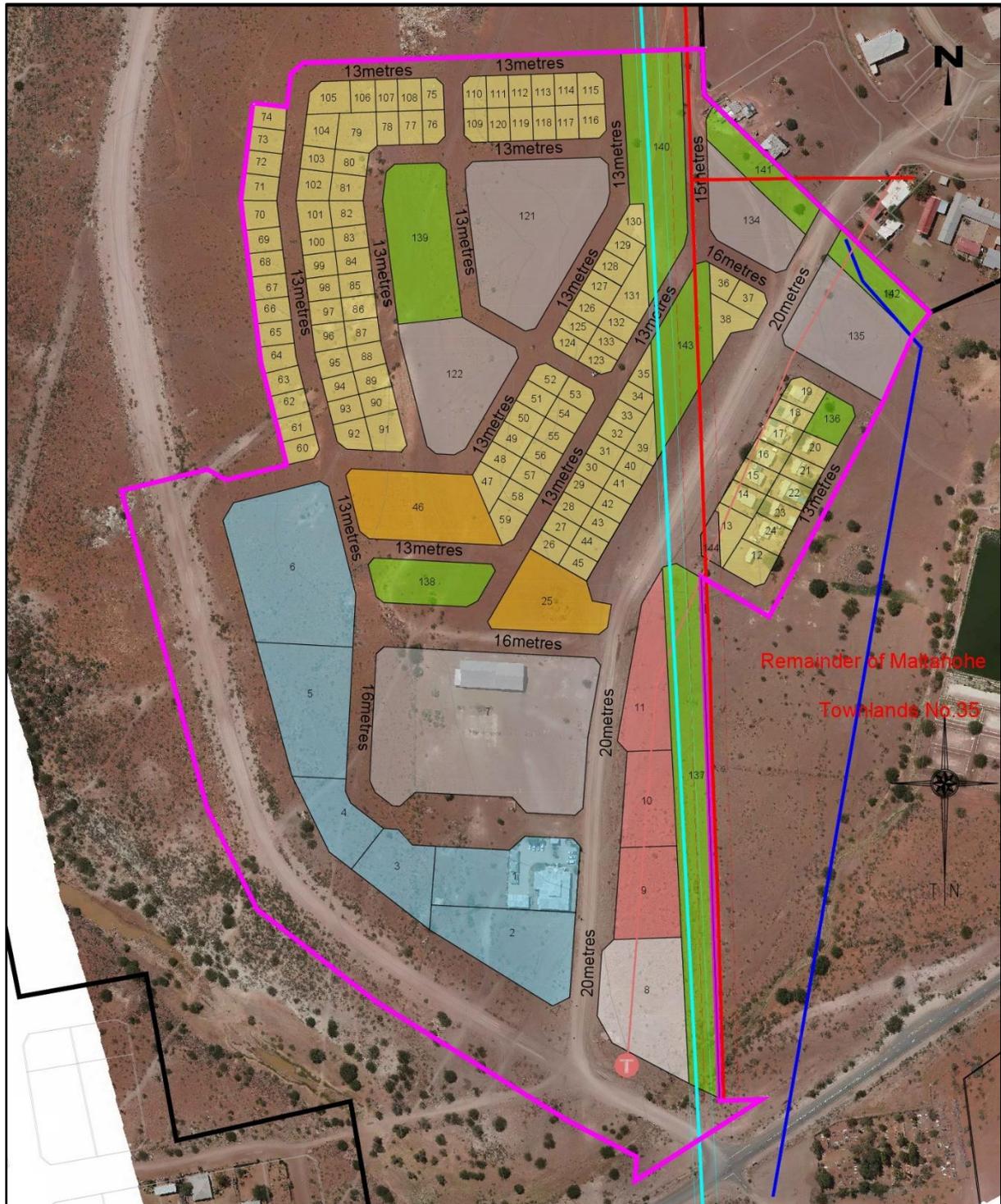
Figure 1: Locality of the Andrewville Ext 1 within Maltahöhe



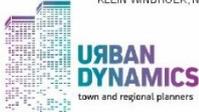
2.1.2 Ownership, Size, Shape, and Land Use Activities

The land is owned and administered by the Maltahöhe Village Council and measures approximately 25.4 hectares. It has been subdivided into 144 erven designated for residential, business, institutional, and public open space use. Figure 2, shows the layout of the new township. The layout reflects both planned and existing uses on the site and is being formalised as part of the township establishment process. The layout seeks to formalise these uses while enabling structured infrastructure development. The site includes cleared areas, existing government and community facilities such as the Daweb Constituency Office and scattered informal land uses including goat grazing.

Figure 2: Andrewville Ext1 Layout and Road Network



**AMENDED LAYOUT PLAN
 ESTABLISHMENT OF ANDREWVILLE EXT 1**

| | | | | | |
|---|----------------|---------------------------------|--------------|--|--|
| The copyright of this drawing is reserved | | LEGEND | | PREPARED BY: | |
| DESIGN | URBAN DYNAMICS | DATE | | 45 NELSON MANDELA AVE. KLEIN WINDHOEK, NAMIBIA | |
| DRAWN | URBAN DYNAMICS | DATE | JANUARY 2025 |  URBAN DYNAMICS town and regional planners | |
| REVISION | | DATE | | | |
| JET: PROJECT NUMBER/DRAWING NAME | | SCALE | | P O BOX 20837 WINDHOEK Namibia | |
| WJ/Current Proj/315/Drawing | | 1 : 3 000 | | Telephone +264-61-240300 Telefax +264-61-240309 E-mail info@udanam.com Web www.udanam.com | |
| DRAWING NAME | | Andrewville amended plan aerial | | | |

2.1.3 Road Network and Utility Services

The following road network and utility services are within the site:

- **Roads:** The internal road network will consist of road reserves ranging between 10 m and 16 m, designed to accommodate residential access, emergency services, and utility corridors. These roads will connect directly to the existing road system in Maltahöhe, allowing for seamless integration with the town's transport network.
- **Water:** Bulk water will be supplied by NamWater and distributed via a reticulated network managed by the Maltahöhe Village Council. Three connection points have been identified to service Andrewville Extension 1, and the system will include water pipelines, valves, and fire hydrants in line with municipal engineering standards.
- **Electricity:** Power will be supplied through a local distribution network linked to NamPower and managed by NamPower. A substation already exists within or near the project area, and the internal electrical layout will include medium and low-voltage reticulation to individual erven.
- **Sewerage:** A sewer pump station and reticulation network will service formalised areas within the development. The system is designed to link with Maltahöhe's existing wastewater infrastructure. Informal areas without immediate access to sewer lines will continue to rely on septic tanks until phased connections are completed.

2.1.4 Environmental Conditions

Maltahöhe experiences a hot, arid to semi-arid climate with summer temperatures exceeding 40°C and annual rainfall between 100–200 mm. The site is not located within a protected area, and no known graves or burial sites exist within the project boundaries, as confirmed by the site inspection. The site's geology is mainly sedimentary (sandstone, siltstone) with shallow, stony Leptosols prone to erosion. The terrain is generally flat with seasonal drainage lines. Vegetation is typical of the Nama Karoo/Desert biome with dwarf shrubland and some scattered trees (e.g., Acacia species), potentially including protected species.

2.1.5 Socio-Economic Conditions

Maltahöhe has a population of 3,464 (NSA,2023) and faces persistent socio-economic challenges, including high unemployment, particularly among youth. Informal settlements such as Blikkiesdorp have arisen due to limited access to serviced land. The Andrewville project aims to improve access to formal housing, employment, and services while enabling long-term town planning.

2.2 SUMMARY OF POTENTIAL IMPACTS

This section identifies the potential environmental and social (E&S) risks associated with the construction phase of the project. The planning and construction of bulk infrastructure may generate both positive and negative impacts. The following impacts were identified through the scoping process:

2.2.1 Benefits of the Project

- Provision of formalised serviced erven;
- Stimulation of economic development and providing new employment opportunities during construction; and

2.2.2 Potential Negative Impacts during Construction

- Impact on nearby residential properties due to dust, noise, and traffic;
- Degradation of existing gravel access roads from construction vehicle;
- Impact on the health and safety of workers; and
- Impact of unmanaged waste.

3 PROJECT STANDARDS AND LEGAL FRAMEWORK

Andrewville Extension 1 has undergone a scoping assessment to identify potential environmental and social (E&S) risks associated with the construction phase. To ensure responsible and sustainable project delivery, it will comply with a comprehensive set of national, local, and international standards, guidelines, and regulatory requirements, which apply throughout both the construction and operational phases.

Adherence to this framework ensures the project meets Namibia's legal obligations, aligns with recognised international good practice, supports sustainable development objectives, and minimises adverse impacts on the environment and local communities.

3.1 NATIONAL AND LOCAL LEGISLATION & PERMIT REQUIREMENTS

This Environmental Management Plan (EMP) has been prepared in accordance with the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations, GN No. 30 of 2012. The EMP gives effect to mitigation measures identified during the Scoping Assessment for the proposed Andrewville Extension 1 project.

Table 1: National and Environmental Legislation

| THEME | LEGISLATION | PROVISION | PROJECT IMPLICATIONS |
|----------------------|---|--|---|
| NATIONAL | Constitution of the Republic of Namibia (Amendment Act 34/1998) | Guarantees property rights (Art. 16(1)) and mandates sustainable ecosystem management (Art. 95(i)) | Supports land ownership and mandates environmental sustainability. |
| ENVIRONMENTAL | Environmental Management Act, 7 of 2007 | Requires Environmental Impact Assessments (Sec 27); mandates public participation (Sec 2(b-c)) | Obtain Environmental Clearance Certificate (ECC) and hold consultations. |
| | Environmental Impact Assessment Regulations, GN No. 30 of 2012 | Lists activities requiring environmental clearance including roads and pipelines (Sec 10(1)) | ECC and consultation processes are compulsory. |
| | Environmental Impact Assessment Regulations, GN No. 30 of 2012 | Regulates noise, dust control, and land rehabilitation. | Construction must mitigate noise, dust, and restore land. |
| | Water Act, 54 of 1956 | Regulates abstraction, diversion, and use of water resources. | Obtain water use permits for abstraction, diversion, or discharge; comply with water protection measures. |

Table 2: Infrastructure and Hazardous Substances

| THEME | LEGISLATION | PROVISION | PROJECT IMPLICATIONS |
|-----------------------------|------------------------------------|---|--|
| INFRASTRUCTURE | EIA Regulations, GN No. 30 of 2012 | Covers pipelines and roads (Sec 10.1(a), 10.1(b)) | ECC required for pipeline and road works. |
| HAZARDOUS SUBSTANCES | EIA Regulations, GN No. 30 of 2012 | Regulates hazardous materials handling and waste permits (Sec 9.1, 9.2) | Ensure safe storage, handling, and disposal of hazardous substances. |

Table 3: Health, Safety, and Social Legislation

| THEME | LEGISLATION | PROVISION | PROJECT IMPLICATIONS |
|-----------------|---|---|--|
| HEALTH & SAFETY | Labour Act, 11 of 2007 | Regulates worker rights and prohibits child/forced labour. | Comply with labour laws; promote fair employment. |
| | Public and Environmental Health Act, 2015 | Covers health standards, waste management, and water quality. | Maintain health and safety compliance. |
| | Health and Safety Regulations, 2011 | Requires workplace safety measures, PPE, and accident prevention. | Implement occupational health and safety measures. |

Table 4: Other Relevant Frameworks

| THEME | LEGISLATION | PROVISION | PROJECT IMPLICATIONS |
|-------------------|---|---|--|
| SOIL CONSERVATION | Soil Conservation Act, 76 of 1969 | Regulates erosion prevention and soil protection. | Apply erosion control measures. |
| WASTE MANAGEMENT | Waste Management and Pollution Control Act | Regulates disposal of solid and hazardous waste. | Comply with waste disposal and effluent discharge standards. |
| CHILD LABOUR | Labour Act, 11 of 2007; Child Care and Protection Act, 2015 | Prohibits child labour; sets employment age limits. | Enforce zero tolerance on child labour. |
| WORKER RIGHTS | ILO Conventions (29, 87, 98, 100, 111) | Prohibits forced labour; guarantees union rights and equal pay. | Ensure fair and non-discriminatory working conditions. |
| ARCHAEOLOGY | National Heritage Act, 27 of 2004; Burial Place Ordinance | Protects heritage sites and graves. | Report findings; follow legal procedures for heritage sites. |

4 PLANNING AND DESIGN PHASE

The planning and design phase focuses on ensuring that the proposed bulk infrastructure and public roads support the **formalisation of the existing settlement** and minimise potential environmental impacts. Environmental considerations were incorporated into the layout and planning process to reduce disturbance and improve long-term sustainability.

Table 5 below summarises the management requirements for material sourcing, EMP integration in tenders, financial provisions for training and mitigation, and inclusive recruitment strategies.

Table 5: Management Requirements for the Planning and Design Phase

| ASPECT | MANAGEMENT REQUIREMENTS |
|----------------------------------|---|
| Natural Building Material | All building materials (sand and gravel) must only be sourced from a local registered borrow pit. Road building material (G4, G5, etc.) must be sourced in collaboration from approved borrow pits within the townlands. If suitable material can only be sourced from untouched land to create a new borrow pit, then that is legally subject to an EIA by the Council. |
| EMP Implementation | Relevant sections of this EMP should be included in the tender documents for all construction so that tenderers can implement the EMP. |
| Financial Provisions | <ul style="list-style-type: none"> • Financial provision for the facilitation of an induction programme for senior, temporary construction personnel and subcontractors and associated personnel should be included as a cost item within tenders concerning the construction and/or operation and maintenance of the proposed development. • Financial provision for a Tree Management Plan compilation should be included as a cost item within construction tender documents. |
| Recruitment | <ul style="list-style-type: none"> • Provisions designed to maximise the use of local labour should be included within tenders concerning the construction of bulk and reticulation services. • A provision stating that all unskilled labour should be sourced locally should be included in tenders concerning the construction of all development services. • Specific recruitment procedures ensuring local firms enjoy preference during tender adjudication should be included in tenders concerning the construction of the development's bulk services. • Provisions promoting gender equality pertaining to recruitment should be included in tenders concerning the construction of the township services. • Women should be given preference for specific jobs (e.g. those jobs that require relatively less physical strength). |

5 PROJECT ACTIVITIES

The development is a phased infrastructure development intervention focused on delivering serviced land for residential, institutional, business, and public use within Maltahöhe. The Maltahöhe Village Council is the project proponent and has already undertaken limited informal development at the site. This EMP considers both the existing informal infrastructure and the planned formal infrastructure components.

5.1 PLANNED BULK INFRASTRUCTURE INCLUDES

- ❖ Roads: Construction of a gravel road network with widths between 10 m and 16 m, designed to accommodate light vehicles and service vehicles. Roads will connect to the existing Maltahöhe street network.
- ❖ Water Supply: Installation of pipelines from three NamWater bulk connection points, with distribution reticulation.
- ❖ Sewerage: Construction of a sewer pump station and reticulation network to service formal erven. Areas not yet connected will temporarily use septic tanks or dry systems.
- ❖ Electricity: Installation of a medium and low-voltage distribution network linked to an existing substation, including poles, cables, and streetlights.

5.2 CONSTRUCTION ACTIVITIES WILL INCLUDE

- ❖ Light bush clearing and removal of informal waste or debris.
- ❖ Earthworks, such as levelling, trenching, and backfilling for service installation.
- ❖ Installation of roads, water pipelines, sewer lines, and electrical infrastructure.
- ❖ Erection of streetlights, transformer bases, and electrical poles.
- ❖ Connection of infrastructure to the existing municipal systems.
- ❖ Placement of signage, fencing, and temporary traffic barriers to ensure safety.

5.3 CONSTRUCTION EQUIPMENT WILL INCLUDE

- ❖ Excavators
- ❖ Graders
- ❖ Water trucks
- ❖ Tipper trucks

- ❖ Compacting equipment
- ❖ Trenchers and hand tools

5.4 DEVELOPMENT STAKEHOLDERS

Table 6 summarise the main stakeholders involved in the development, including their roles, engagement activities, and an indicative timeline for involvement.

Table 6: Key Stakeholders in Andrewville Extension 1 Development

| STAKEHOLDER | ROLE |
|--|---|
| MALTAHÖHE VILLAGE COUNCIL | Project proponent and infrastructure owner/operator |
| ENVIRONMENTAL CONTROL OFFICER (ECO) | On-site environmental monitoring during construction |
| CONTRACTOR (TBC) | Construction of bulk infrastructure and services |
| NAMWATER | Bulk water supply and coordination on water connection points |
| NAMPOWER | Electricity supply and network extension |
| CONSTITUENCY OFFICE | Local governance and coordination with community |
| SURROUNDING RESIDENTS | Interested and Affected Parties (I&APs) |

5.5 RESPONSIBILITIES

The successful implementation of this Environmental Management Plan (EMP) requires clearly defined roles and responsibilities for all parties involved. The Maltahöhe Village Council, as the project proponent, holds ultimate responsibility. However, day-to-day implementation during construction may be delegated to contractors and environmental professionals. The roles of the Employer’s Representative (ER), Environmental Control Officer (ECO), and Contractor are outlined below.

5.5.1 Employer’s Representative (ER)

The ER is appointed by the Developer (Maltahöhe Village Council) to manage all construction contracts. The ER may be an internal staff member or an external consultant with relevant qualifications and experience. The ER will assist in the coordination and enforcement of the EMP.

Key responsibilities:

- ❖ Ensure the Contractor has obtained all required permits and authorisations.
- ❖ Assist the Contractor in resolving environmental issues in collaboration with the ECO.
- ❖ Monitor compliance with the EMP and relevant legal requirements.
- ❖ Issue warnings or remove individuals and/or equipment found non-compliant with EMP provisions.

- ❖ Recommend penalties or fines for transgressions or non-conformances.
- ❖ Contribute to monthly EMP review reports submitted to the Developer.

5.5.2 Environmental Control Officer (ECO)

The ECO is appointed by the ER and must be a competent individual, preferably with training in occupational health and safety in construction environments. If no ECO is appointed, the ER assumes the ECO's responsibilities. The ECO is primarily responsible for ensuring on-site environmental compliance.

Key responsibilities:

- ❖ Assist the ER in confirming that legal permits have been secured before construction starts.
- ❖ Conduct monthly environmental site inspections to assess EMP implementation.
- ❖ Monitor and audit all construction activities for compliance with the EMP.
- ❖ Advise the ER and Contractor on environmentally sound practices and solutions.
- ❖ Maintain open communication between the Developer, Contractor, ER, and Interested and Affected Parties (I&APs).
- ❖ Coordinate and deliver environmental induction and awareness training to all site personnel.
- ❖ Maintain training records and verify that all staff have received appropriate environmental and health and safety training.
- ❖ Enforce "chance-find" procedures in the event of archaeological or heritage discoveries.
- ❖ Recommend the removal of non-compliant workers or equipment in consultation with the ER.
- ❖ Participate in reviewing and updating the EMP monthly during the construction phase.

5.5.3 Contractor

The appointed Contractor is directly responsible for implementing all on-site environmental management actions during construction. The Contractor must integrate relevant EMP clauses into sub-contractor agreements to ensure legal enforceability across all levels.

Key responsibilities:

- ❖ Fully implement the EMP provisions during all construction activities.
- ❖ Maintain an on-site copy of the EMP for reference by workers and stakeholders.
- ❖ Ensure all personnel attend induction and ongoing environmental and safety training.
- ❖ Keep complete records of training sessions, including participant names, dates, and topics covered.

- ❖ Implement measures to minimise dust, noise, waste, erosion, and risks to worker and public health.
- ❖ Participate in site inspections and audits by the ECO and ER.
- ❖ Cooperate with the ER and ECO in addressing any incidents of non-compliance.
- ❖ Liaise with the Developer and community representatives regarding construction-related issues.

6 TRAINING AND AWARENESS

Effective environmental management requires that all personnel working on the Andrewville Extension 1 project are properly informed and trained regarding the requirements and provisions of this EMP. Table 7 outlines the training framework:

Table 7: Training and Awareness

| TRAINING TYPE | TRAINING CONTENT | RESPONSIBLE PARTY | TARGET AUDIENCE | FREQUENCY |
|-------------------------------|---|------------------------------------|---|----------------------------|
| INDUCTION TRAINING | <ul style="list-style-type: none"> – Purpose and objectives of the EMP; – Environmental risks and mitigation; – Health & safety (PPE use, emergencies); and – Communication channels. | Contractor / ECO | All new employees, subcontractors, visitors | Before work commencement |
| REFRESHER TRAINING | <ul style="list-style-type: none"> – Reinforcement of EMP provisions – Updates on emerging environmental issues | Contractor / ECO | All personnel | Quarterly or as needed |
| TOOLBOX TALKS | <ul style="list-style-type: none"> – Practical, task-specific topics: dust, noise, waste, hazardous materials, erosion | Contractor | All site workers | Weekly or per activity |
| HEALTH AWARENESS | <ul style="list-style-type: none"> – HIV/AIDS education – General health and well-being | Contractor with Ministry of Health | All workers | Periodically (as arranged) |
| TRAINING DOCUMENTATION | <ul style="list-style-type: none"> – Attendance registers – Records of content, dates, names | Contractor (monitored by ECO) | All trained personnel | Ongoing throughout project |
| TRAINING OVERSIGHT | <ul style="list-style-type: none"> – Ensure training is conducted and evaluated – Address gaps or non-compliance | ECO | Supervises Contractor & site personnel | Continuous oversight |

7 CONSTRUCTION MITIGATION DETAIL

This section sets out the environmental and social measures to be implemented during construction and operation of the Andrewville Extension 1 bulk infrastructure. These measures ensure compliance with Namibian legislation, protect health and safety, and support sustainable development.

Table 8 lists the nine Planning Components that address key environmental management themes. Each component is described in detail in the subsections that follow to guide on-site implementation by the Contractor, Environmental Control Officer (ECO), and Employer’s Representative (ER).

Table 8: Generic and Site-Specific Environmental Management Actions

| THEME: | OBJECTIVE: | MITIGATION DETAIL: | |
|--|---|-------------------------|----------------|
| | | GENERIC: | SITE-SPECIFIC: |
| WASTE MANAGEMENT: | Minimise and avoid all waste pollution associated with construction. | PLAN COMPONENT 1 | YES |
| HEALTH AND SAFETY MANAGEMENT: | Focusing on the well-being of the labourers and the community near the construction. | PLAN COMPONENT 2 | YES |
| NOISE AND DUST MANAGEMENT: | Minimise and avoid all noise and dust associated with construction. | PLAN COMPONENT 3 | YES |
| TRAFFIC MANAGEMENT: | Minimise and avoid traffic impacts. | PLAN COMPONENT 4 | YES |
| ENVIRONMENTAL TRAINING AND AWARENESS: | Awareness creation regarding the provisions of the EMP as well as the importance of safeguarding environmental resources. | PLAN COMPONENT 5 | YES |
| ENVIRONMENTAL CONSERVATION: | Minimise the effect of the activity and protect the social environment in which it is happening. | PLAN COMPONENT 6 | YES |
| EMPLOYMENT / RECRUITMENT | Ensure the protection of workers' rights and safety in Namibia. | PLAN COMPONENT 7 | YES |
| STAKEHOLDER COMMUNICATION: | Provide a platform for stakeholders to raise grievances and receive feedback and hence, minimise negative conflict. | PLAN COMPONENT 8 | YES |
| SOCIO-ECONOMIC AND MISCELLANEOUS: | Protecting cultural and general well-being of the affected. | PLAN COMPONENT 9 | NA |

7.1 PLAN COMPONENT 1: WASTE MANAGEMENT

Objective: Handle, segregate, and dispose of all waste responsibly.

Scope: Covers both construction-phase and operational-phase waste control, with generic and site-specific measures.

At the Andrewville Extension 1 construction site in Maltahöhe, high importance shall be placed on waste management, and it needs to be performed daily. Solid waste is expected to be the major source of waste; therefore, a Waste Management Plan (WMP) should be compiled. The WMP should address measures for the handling and disposal of general waste and hazardous waste on site, as detailed below:

7.1.1 Construction Waste Management

General Waste:

- ❖ Keep site tidy; collect all general waste daily.
- ❖ Prohibit burial or burning of waste.
- ❖ Prevent dumping into watercourses.
- ❖ Provide separate labelled bins for general and hazardous waste.
- ❖ Train workers in proper disposal practices.

Hazardous Waste:

- ❖ Equip all machinery with drip trays; clean daily and dispose of residues as hazardous waste.
- ❖ Collect wet concrete, unbound/dry cement, and cement-infused water in hazardous waste containers.
- ❖ Maintain a spill kit with shovels, gloves, bags, drip trays, dust masks, and biodegradable degreaser.
- ❖ Store fuels and chemicals on impermeable surfaces within bunded areas.

Duration: Short-term (construction phase)

Responsible: Contractor (implementation), ECO & ER (monitoring)

7.1.2 Operational Waste Management

- The Maltahöhe Village Council should provide available waste collection services for households and businesses within Andrewville Extension 1.
- Pump sewerage via a closed pipeline system into the Village Council's wastewater network.
- **Note:** The Village Council currently has limited waste management infrastructure and capacity. As part of the township's long-term sustainability, it is recommended that the Council develop a phased Waste Management Plan to improve collection frequency, introduce waste segregation, and identify suitable disposal or recycling options in line with national standards.

Duration: Long-term (operational)

Responsible: Village Council (collection & maintenance)

7.2 PLAN COMPONENT 2: HEALTH AND SAFETY

Objective: Protect workers and the community from health and safety hazards.

Scope: Applies to all personnel and site visitors during construction, covering hazard identification, PPE, medical support, and emergency procedures.

At the construction site, the health and safety of workers and adjacent communities is paramount. Monthly safety briefings and strict adherence to PPE requirements are mandatory. A site-specific Health & Safety Plan must be developed, including emergency contact protocols with Maltahöhe Clinic and on-site first-aid facilities:

Objective: Protect workers and the community from health and safety hazards.

7.2.1 Construction Health & Safety

- ❖ Comply with Labour Act 11 of 2007 and Regulation 156.
- ❖ Appoint a qualified Health & Safety Officer.
- ❖ Provide PPE, fire extinguishers, and secured fuel storage.
- ❖ Prohibit personnel transport in construction vehicles.
- ❖ Secure loads, demarcate hazards, and display warning signage.
- ❖ Conduct toolbox talks on emergency response and hazard awareness.

HIV/AIDS & TB Training: Partner with Ministry of Health and Social Services for periodic on-site sessions.

Emergency Contact: Maltahöhe Clinic

Phone: +264 63 293 230

Location: Main Road, Maltahöhe

7.2.2 Ablutions

The following measures must be implemented for on-site ablution facilities:

- Provide separate, clearly marked toilets for male and female workers (minimum: 1 per 25 females; 1 per 50 males).
- Ensure toilets are well-ventilated, cleaned daily, and supplied with toilet paper, soap, and handwashing facilities with clean water.
- Arrange regular sewage removal to an approved disposal site in compliance with the Public and Environmental Health Act, 2015.
- Locate ablution facilities at least 50 m away from watercourses and drainage lines to prevent contamination.
- Place facilities on stable, level ground to prevent tipping or leakage.
- Provide adequate lighting for safe use after dark.
- Supply cleaning staff with PPE, including gloves, masks, and disinfectants, and train them in hygienic cleaning procedures.
- Maintain a logbook of cleaning and waste removal schedules for ECO inspection.

Duration: Short-term (construction phase)

Responsible: Contractor (implementation), ECO & ER (monitoring)

7.3 PLAN COMPONENT 3: NOISE AND DUST CONTROL

Objective:

To minimise and manage noise and dust impacts on nearby residents, businesses, and workers during construction.

Mitigation Measures:

- Noisy construction activities will be restricted to 07:00–17:00 on weekdays and 08:00–13:00 on Saturdays, if construction is undertaken.
- Construction activities will not take place on Sundays or public holidays unless prior approval is obtained.
- Dust suppression measures, including regular water spraying, will be implemented on exposed surfaces and access roads during dry and windy conditions.
- Workers exposed to dusty conditions will be provided with appropriate personal protective equipment (PPE).

Responsibility: Contractor

Monitoring: ECO / ER

Applicability: Construction phase only, if implemented

Objective: Minimise and manage noise and dust impacts on nearby residents, businesses, and workers to protect health, comfort, and environmental quality.

7.4 PLAN COMPONENT 4: TRAFFIC MANAGEMENT

Objective: Ensure safe and efficient movement of vehicles and pedestrians.

- Develop a Traffic Management Plan with ER approval.
- Schedule heavy vehicle movements outside peak hours (07:00–08:00; 17:00–18:30).
- Deploy signage, barriers, and flag personnel at crossings.
- Provide dedicated parking and shuttle services if needed.

Duration: Short-term (construction)

Responsible: Contractor (implementation), ER (oversight)

7.5 PLAN COMPONENT 5: ENVIRONMENTAL TRAINING & AWARENESS

Objective: Equip all personnel with knowledge to implement the EMP.

- Conduct induction covering EMP objectives, roles, and emergency procedures.
- Hold refresher trainings quarterly and toolbox talks weekly.
- Record attendance, topics, and feedback; maintain registers onsite.

Duration: Ongoing (construction)

Responsible: Contractor (delivery), ECO & ER (verification)

7.6 PLAN COMPONENT 6: ENVIRONMENTAL CONSERVATION

Objective: Preserve site integrity and prevent ecological damage.

Scope: Applies to all areas of disturbance, with restoration requirements.

On this site, temporary lay-down areas must avoid the nearby drainage line and be regraded and revegetated post-construction to prevent erosion. A site-specific Conservation Plan will map sensitive zones:

- Materials Camp & Lay-Down Areas
- Locate camps on previously disturbed land; avoid watercourses.
- Demarcate storage zones; contain spill risks.
- Restore areas post-use by clearing debris and re-grading.

Duration: Short-term (construction)

Responsible: Contractor (setup), ER & ECO (approval)

7.7 PLAN COMPONENT 7: EMPLOYMENT & RECRUITMENT

Objective: Maximise local employment while ensuring fair labour practices.

Scope: Relates to all hiring and subcontracting on the site.

Priority will be given to qualified Maltahöhe residents for all labour and support roles. A local recruitment register will be maintained, and all contract terms will be clearly explained in both English and Afrikaans:

- Prioritise Maltahöhe residents in hiring; outline this in tender docs.
- Require sub-contractors to follow local recruitment and gender equity guidelines.

- Clearly communicate contract terms; provide translation where necessary.
- Adhere to Labour Act 11 of 2007 regarding minimum wages, child labour, and SMEs.

Duration: Entire construction

Responsible: Contractor (recruitment), ER (monitoring)

7.8 PLAN COMPONENT 8: STAKEHOLDER COMMUNICATION

Objective: Maintain transparent, ongoing dialogue with affected parties.

Scope: Covers grievance logging, regular updates, and community liaison.

A dedicated notice board at the site entry and monthly community meetings in Maltahöhe will ensure stakeholder concerns are captured. All grievances will be logged in the site register and addressed within 14 days:

- Draft and implement a Communication Plan identifying I&APs, methods, and frequency.
- Centralise all correspondence through the ECO; log all grievances in a site register.
- Provide monthly public updates via notice boards and community meetings.
- Escalate unresolved issues to the Developer and ER within 7 days.

Duration: Throughout construction

Responsible: ECO (liaison), Contractor (reporting), Developer & ER (resolution)

7.9 PLAN COMPONENT 9: SOCIO-ECONOMIC AND MISCELLANEOUS

Objective: Address cultural heritage, community well-being, and miscellaneous socio-economic risks.

Scope: Includes chance finds, community health, local procurement, and grievance closure.

Given the site's proximity to known heritage areas, a chance-find procedure must be in place. Additionally, the project will target 70% local procurement and coordinate quarterly health outreach events with Maltahöhe Clinic:

7.9.1 Chance-Find Heritage Procedures

- If suspected archaeological or heritage artifacts are uncovered during excavation, stop work immediately.
- Demarcate the find with danger tape and record GPS coordinates if possible.
- Notify the ECO and ER, and contact the National Heritage Council for guidance and permits.
- Do not remove or disturb the find until authorised; allow a qualified archaeologist to inspect.

7.9.2 Local Economic Benefits

- Track local procurement of materials and services; target at least 70% local spending where feasible.
- Encourage local small businesses (SMEs) to participate in supply chains and subcontracting.
- Report quarterly on employment statistics, local versus imported labour ratios.

7.9.3 Grievance and Feedback Mechanism

- Maintain a dedicated grievance logbook at the site office.
- Acknowledge receipt of complaints within 3 working days and aim for resolution within 14 days.
- Summary of grievances and resolutions to be included in monthly EMP compliance reports.

Duration: Throughout construction and first year of operation

Responsible: Contractor (on-site procedures), ECO & ER (monitoring and reporting), Developer (oversight)

8 CONCLUSION

The successful implementation of this EMP is essential to ensure that the Andrewville Extension 1 Township Development delivers its intended socio-economic benefits while minimising environmental and social impacts.

All stakeholders — including the Maltahöhe Village Council, the appointed Contractor, the Employer's ER, and the ECO — have clearly defined responsibilities to ensure compliance with Namibian legislation and recognised environmental best practices.

By applying the mitigation measures, monitoring requirements, and communication procedures outlined in this EMP, the project can be implemented in a sustainable manner that benefits the Maltahöhe community and safeguards the surrounding environment.

Continuous monitoring, transparent reporting, and active engagement with I&APs will promote accountability and adaptability throughout both the construction and operational phases.

This EMP is a living document and must be reviewed and updated as the project progresses. Amendments may be made to address changes in project scope, site conditions, legislation, or stakeholder feedback. All revisions must be approved by the Maltahöhe Village Council and, where applicable, by the Ministry of Environment, Forestry and Tourism (MEFT) before implementation.