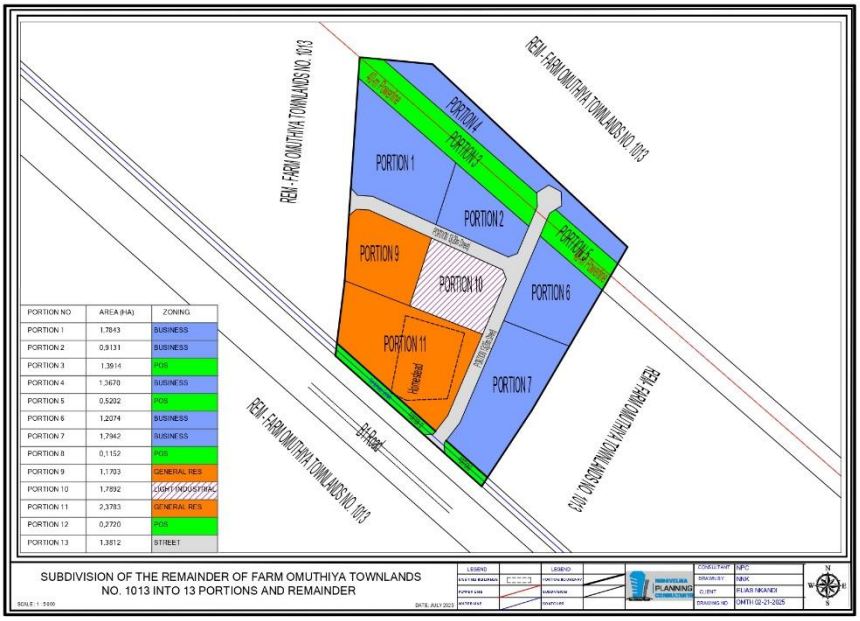
# ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

SUBDIVISION OF THE REMAINDER OF THE FARM OMUTHIYA TOWNLANDS NO. 1013 INTO 13 PORTIONS AND REMAINDER AND THE CREATION OF A "STREET".




**FEBRUARY 2026**

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**LIST OF ABBREVIATIONS**

| TERMS | DEFINITION |
|---|---|
| EIA | Environmental Impact Assessment |
| EMP | Environmental Management Plan |
| DEA | Department of Environmental Affairs |
| PPPPs | Projects, Plans, Programmes and Policies |
| NDC | Namibia Development Consultants |
| SANS | South African National Standards |
| I&APs | Interested and Affected Parties |
| PM | Particulate Matter |
| NPC | Nghivelwa Planning Consultants |
| GRN | Government of the Republic of Namibia |

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# 1. INTRODUCTION

## 1.1 Project Overview

The Omuthiya Town Council has resolved to subdivide the Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and the subsequent creation of a "Street". The statutory town planning exercise is necessary to allow for the Nkandi Family to buy the property that they have inhabited for generations from the Omuthiya Town Council and develop it into contemporary residential and various businesses.

The Remainder of Farm Omuthiya Townlands No. 1013 is currently zoned as "Undetermined" and is situated in the jurisdiction of Omuthiya Town Council located in central Oshikoto Region. For the subdivision of Farm Omuthiya Townlands No. 1013 into 13 portions and Remainder and subsequent creation of "Street" to commence, the statutory town planning and environmental management procedure for the subdivision of land into 13 portions and Remainder and subsequent creation of a street reservation, the statutory town planning and environmental management procedure must be carried out.

Nghivelwa Planning Consultants, a Town and Regional Planning and Environmental Management Consultancy firm has been appointed to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the Subdivision of Farm Omuthiya Townlands No.1013 into 13 portions and Remainder and subsequent creation of a "Street". The Environmental Impact Assessment has been conducted to meet the requirements of the Namibia's Environmental Management Act (No. 7 of 2007).

An EIA may be defined as: a formal process to predict the environmental consequences of human development activities and to plan appropriate measures to eliminate or reduce adverse effects and to augment positive effects.

Thus, an EIA has three main functions:

- To predict environmental problems,
- To find ways to avoid environmental problems, and
- To enhance positive effects.

## 1.2 Terms of Reference

The Subdivision of Farm Omuthiya Townlands No.1013 into 13 portions and Remainder and subsequent creation of a "Street". is a listed activity that cannot be undertaken without an Environmental Clearance Certificate. Therefore, as part of the commissioning process an Environmental Impact Assessment (EIA) is required. Thus, it was necessary for Omuthiya Town

Council and the Nkandi family to appoint Nghivelwa Planning Consultants to provide environmental management consultancy services to undertake an environmental impact assessment to comply with the Environmental Management Act, 2007 (Act no. 7 of 2007).

The Terms of Reference (ToR) for the consultants were, but not limited to the following:

- The collection of all possible data on the environmental, social and natural resource components and necessary parameters.
- A description of the location of the proposed project including the physical area that may be affected by the project activities.
- Description of the design of the proposed project.
- Description of the activities that will be undertaken during the project construction, operation and decommissioning phases.
- Listing of the materials to be used, products and by products, including waste to be generated by the project and the methods of disposal.
- Identification of the potential environmental impacts of the proposed project and
- The mitigation measures to be taken during and after implementation of the project.
- Accidents during the project cycle.
- Establishment of a plan to ensure the health and safety of the workers and neighboring communities.
- Identification of the economic and socio-cultural impacts of the proposed project.
- Economic and social analysis of the project including project risk and measures to mitigate them.
- Establishment of an action plan for the prevention and management of possible impacts (EMP).
- The consultant will prepare recommendation on the project for its future use.

## 1.3 Acknowledgement

Nghivelwa Planning Consultant has prepared this EIA Report on behalf of the proponent, Omuthiya Town Council. The proponent has provided the necessary information and documents and the necessary guidance during the project undertaking and during the preparation of this report. The Consultant (Nghivelwa Planning Consultant) acknowledges the contribution provided by the proponent and support and interest shown by all the identified stakeholders.

## 1.4 DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

This EIA Report was prepared by the following Environmental Practitioners:

| Name of representative of the EAP | Education qualifications | Professional affiliations |
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| Nghivelwashisho Natangwe Ndakunda | MBA-Entrepreneurship, B-Tech Town and Regional Planning | Namibia Council of Town and Regional Planners, Namibia Institute of Town and Regional Planners |

**Table 1: EAP's**

## 2. EIA METHODOLOGY

The objective of the assessment of impacts is to identify and assess all the significant impacts that may arise from the undertaking of an activity and the findings used to inform the competent authority's decision whether the activity should be approved, approved subject to conditions that will reduce the impacts to within acceptable levels or should be rejected. In this sense impacts are defined as the changes in an environmental or social parameter that result from undertaking the proposed activity. The following general methodology was used in this EIA for the proposed subdivision and the creation of a street and to investigate its potential impacts on the social and natural environment.

The key activities undertaken during the assessment included the following:

### 2.1 Establishment of the environmental baseline

The study and description of the receiving environment on which the proposed project is to be implemented. Thus, it involved a site visit, physical inspection of the study area's soil, biology, topography, animal species, water resources, climate and the local socio-economic environment.

### 2.2 Impact analysis

This involves the identification of impacts that are usually associated with the construction, operation or maintenance and decommissioning of the proposed activity and are generally obvious and quantifiable. These impacts were analyzed and evaluated.

### 2.3 Impacts mitigation

This involves the identification of the impacts and once impacts have been identified and predicted for a particular activity, then appropriate mitigation measures need to be established. Mitigation measures are the modification of certain activity in such a way as to reduce the impacts on the physical- and socio-economic environment. The objectives of mitigation are to:

- Find more environmentally sound ways of doing things.
- Enhance the environmental benefits of a proposed activity.

- Avoid, minimize or remedy negative impacts; and ensure that residual negative impacts are within acceptable levels.

Furthermore, impacts associated with all the stages of the proposed project were identified and mitigated. An Environmental Management Plan has been prepared as framework for mitigation of impacts and environmental monitoring of the project.

### 2.4 Review of alternatives

This entailed a review of the alternatives to the proposed project. This was aimed at determining better ways of avoiding or minimizing environmental impacts while still realizing the project goals. The review of alternatives provided opportunities for environmental enhancement. There were no alternatives identified for this project as Nkandi Family has lived in the area for many years and they do not have an alternative site where they can carry out the development.

### 2.5 Public Participation Process (PPP)

This process for the public participation was done by informing the relevant stakeholders and interested and affected parties. Advertisements for the public to participate and raise their concerns on the proposed development were placed in two (2) local newspapers of the New Era and Confidante of the 24th and 31st October 2025. The public and interested and affected parties were invited to provide comments to the EIA and no interested or affected party registered any comments. Due to the small-scale nature of the project and lack of interest, a public meeting about the proposed development and its potential impact on the environment was deemed not necessary.

## 3. POLICY AND OTHER RELEVANT LEGISLATION

| SUBJECT | INSTRUMENTS AND CONTENT | APPLICATION TO THE PROJECT |
|---|---|---|
| **The Constitution of the Republic of Namibia** | General human rights – eliminates discrimination of any kind. The right to a safe and healthy environment. Affords protection to biodiversity | Ensure these principles are enshrined in the documentation of the Project. |
| **Environmental Management Act EMA (No 7 of 2007)** | Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). Details principles which are to guide all EAs. | Ensure that the subdvision is carried out within the parameters of the Act. |
| **Environmental Impact Assessment (EIA)** | Details requirements for public consultation within a given environmental assessment process | Ensure that the subdivision and creation of streets aligns with the EIA regulations. |

| | | |
|---|---|---|
| **Regulations GN 28-30 (GG 487** | (GN 30 S21). Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15). | |
| **Forestry Act No 27 of 2004** | Provision for the protection of various plant species | Some species that occur in the area are protected under the Forestry Act and a permit is therefore required to remove the species |
| **Hazardous Substances Ordinance 14 of 1974:** | Control of substances which may cause injury or ill-health or death of human beings because their toxic, corrosive, irritant, strongly sensitizing or flammable nature | The waste generated on site and at the campsite should be suitably categorised/classified and disposed of properly and in accordance with the Measures outlined in the Ordinance. |
| **The Nature Conservation Ordinance ( No. 4 of 1975)** | Prohibits disturbance or destruction of protected birds without a permit. Requires a permit for picking (the definition of "picking" includes damage or destroy) protected plants without a permit | Protected plants will have to be identified during the planning phase of the project. In case there is an intention to remove protected species, then permits will be required. |
| **Forestry Act 12 of 2001 Nature Conservation Ordinance 4 of 1975** | Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22(1)). Prohibits the removal of and transport of various protected plant species. | Even though the Directorate of Forestry has no jurisdiction within townlands, these provisions will be used as a guideline for conservation of vegetation. |
| **Convention on Biological Diversity, 1992** | Protection of biodiversity of Namibia | Conservation-worthy species not to be removed if not necessary. |
| **Water Resources Management Act 11 of 2013** | The Act provides for the management, protection, development, use and conservation of water Resources; to provide for the regulation and monitoring of water services. | Obligation not to pollute surface water bodies |
| **National Heritage Act 27 of 2004** | Section 48(1) states that "A person may apply to the [National Heritage] Council [NHC] for a permit to carry | Any heritage resources (e.g. human remains etc.) discovered during construction requires a |

| | | |
|---|---|---|
| | out works or activities in relation to a protected place or protected object | permit from the National Heritage Council for relocation |
| **Labour Act 11 of 2007** | Details requirements regarding minimum wage and working conditions (S39-47). | Employment and work relations |
| **Health and Safety Regulations GN 156/1997 (GG 1617** | Details various requirements regarding health and safety of labourers. | Protection of human health, avoid township establishment at areas that can impact on human health. |
| **Public Health Act 36 of 1919** | Section 119 states that "no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health." | Ensure that all contractors involved during the construction, operation and maintenance of the proposed project comply with the provisions of these legal instrument |
| **Water Resources Management Act 11 of 2013** | Prohibits the pollution of underground and surface water bodies (S23(1)). Liability of clean-up costs after closure/ abandonment of an activity (S23(2)). | The protection of ground and surface water resources should be a priority. The main threats will most likely be concrete and hydrocarbon spills during construction and hydrocarbon spills during operation and maintenance. |
| **Urban and Regional Planning Act no 5 of 2018** | Details the functions of the Urban and Regional Planning Board including their consideration when assessing an application for the permanent closure of public open spaces and subsequent rezoning (S3) | The proposed change in land uses should be informed by environmental factors such as water supply, soil etc. as laid out in Section 3 of the act. |
| **Local Authorities Act no 23 of 1992** | Details the procedures to be followed for the provision of municipal services in Local Authority Areas. | The provision of municipal services should be in line with the use of land. |

**Table 2: Relevant legislation**

## 4. NEED AND DESIRABILITY OF THE PROPOSED PROJECT

The Nkandi Family have lived in Omuthiya for the past 70 years, After the establishment of Omuthiya as a Local Authority, the family approached Council to facilitate the sale and subsequent transfer of the land that they have resided and depended on for years. The Omuthiya Town Council approved the family's request on condition that the land be used for the development of the town.

Therefore, the Family resolved to Subdivide their portion of land into 13 Portions and the Remainder of which Portion 13 will be as a "Street" to be used to connect the portions to the rest of the town. The new portions will be used for residential, business, institutional and light industrial purposes. The aim is to establish several businesses that will contribute to the economy of the town and that will be aligned with the Council Resolution and wishes.

The portion is currently used as a traditional homestead, a business and its formal subdivision will promote efficient land use, improve access through the provision of a public street, and enable proper service installation. Where necessary, statutory planning processes are being undertaken to ensure compliance with applicable land use regulations and zoning requirements.

The new portions to be created will be sold to the Nkandi family at market related prices and in turn the family will develop a contemporary health care facility, several new types of business and general light industrial units. The mixed development is expected to increase socio-economic activities in Omuthiya, create employment opportunities for the youth of the town and increase revenue for Omuthiya Town Council through the collection of business levies and property taxes. Therefore, this development is deemed to be of a positive nature and will help to improve the quality of life for the Omuthiya residents.

## 5. SCOPE OF THE EIA

The objectives of the scope of the EIA were to ascertain key issues of the environmental impacts that are likely to be important during all the phases of the Project. Relevant environmental data has been compiled by making use of primary data which was collected during the site assessment done on the 24$^{th}$ of October 2025 and by using secondary data already available. Potential environmental impacts and associated social impacts were identified and addressed in this report.

The construction and operational phases of the proposed development will involve.

- The preparation of the site, including excavations.
- Transportation of construction materials.
- Off-loading of materials
- The constructions of the buildings

- The supply of bulk services such as water, electricity, waste disposal plan and waste management
- The Maintenance of the Erven by Omuthiya Town Council.

The Environmental Impact Assessment study report includes an impact assessment and mitigation measures for the three phases of the proposed project following:

- The field investigations (site assessment).
- Identifying and involving all stakeholders in the Environmental Impact Assessment process by expressing their views and concerns on the proposed project.
- Identify all potential significant adverse environmental and social impacts of the project and recommend mitigation measures to be well described in the Environmental Monitoring Plan (EMP);
- Coordination with the proponent, regarding the requirements of law of Namibia's Environmental Management Act (No. 7 of 2007) and other relevant policies and administrative framework.
- To define the Terms of Reference for the Environmental Impact Assessment study.
- A review of the policy, and relevant legislation.
- To provide overall assessment information of the social and biophysical environments of the affected areas by the proposed development.

## 6. DESCRIPTION OF THE PROPOSED ACTIVITY

The proposed activity is for the subdivision of Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and subsequent creation of a "Street". The activity involves the change of land use of the subject properties from undetermined to general residential, business, light business and public open space activities.

It also includes the maintenance of the site during the operational phase such as waste disposal and noise pollution as well as maintenance of the afore-mentioned municipal services. The portions will be connected to the municipal services of Omuthiya, and they will obtain access from the B1 Main Road and the 20-meter Street to be created because of the subdivision. Thus, the construction of bulk municipal services for this development will be met accordingly.

This is a new development that will require the construction of municipal bulk services to be connected to the existing services of Omuthiya, the harmful affluent that will be created will be channeled to the Omuthiya sewer water storage and treatment plant provided by Omuthiya Town Council. The proposed portion is currently developed and there is variety of fauna and flora that is found on the property are preserved. Thus, the proposed subdivision will not have any negative impacts on the natural environment.

## 6.1 Location and land ownership

Remainder of Farm Omuthiya Townlands No. 1013 is currently owned by the Omuthiya Town Council, however the Nkandi family has been occupying the proposed portions before the proclamation of the town council, and collectively measure ±16 hectares in extent. They are situated in Omuthiya Townlands, Omuthiya Constituency, Oshikoto Region as shown in Figure 1 below. The site currently has a traditional homestead constructed on one of the proposed portions. The proposed site is located on the northly direction of Omuthiya Town. The GPS coordinates of the project site are: Latitude: -18.342212°, Longitude: 16.561533°.

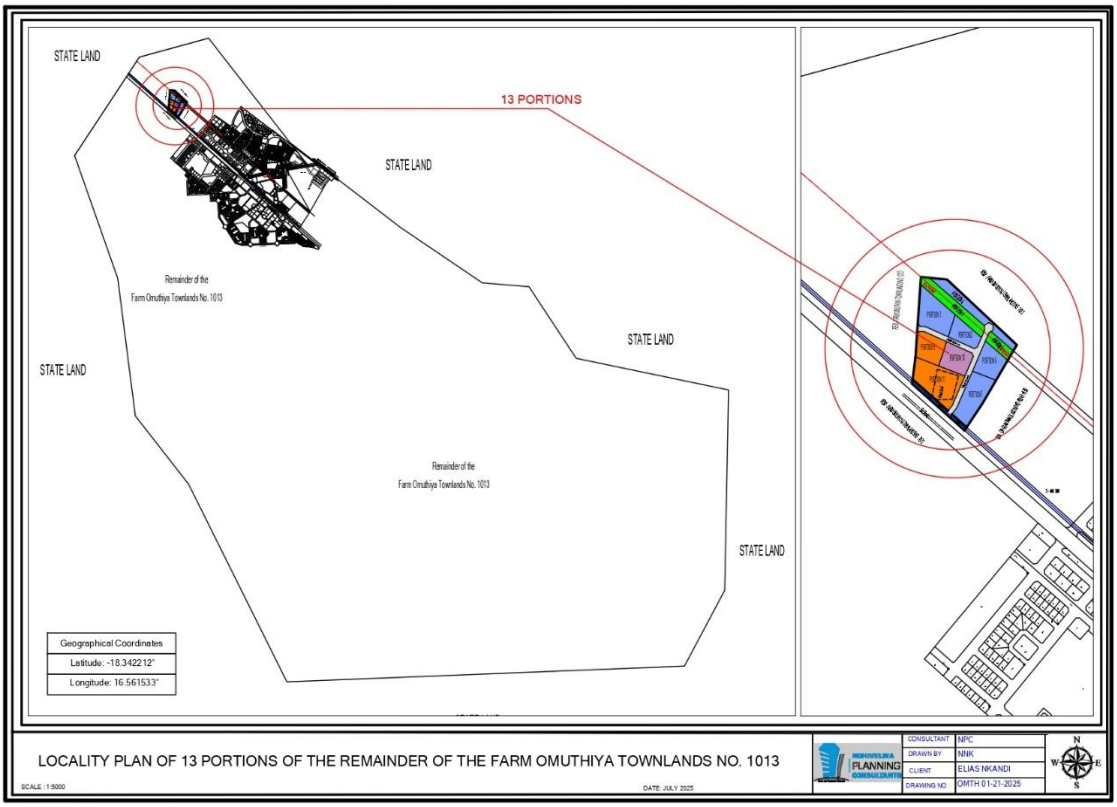



**Figure 1: Locality plan of Remainder of Farm Omuthiya Townlands No. 1013**

## 6.2 Ownership

Remainder of Farm Omuthiya Townlands No. 1013 is currently owned by the Omuthiya Town Council. Omuthiya Town Council will be managing the project during both phases. The subdivided portions will then be distributed amongst the Nakandi Family members to pursue business ventures.

## 6.3 Description of the site

- The slope of the site is relatively flat.

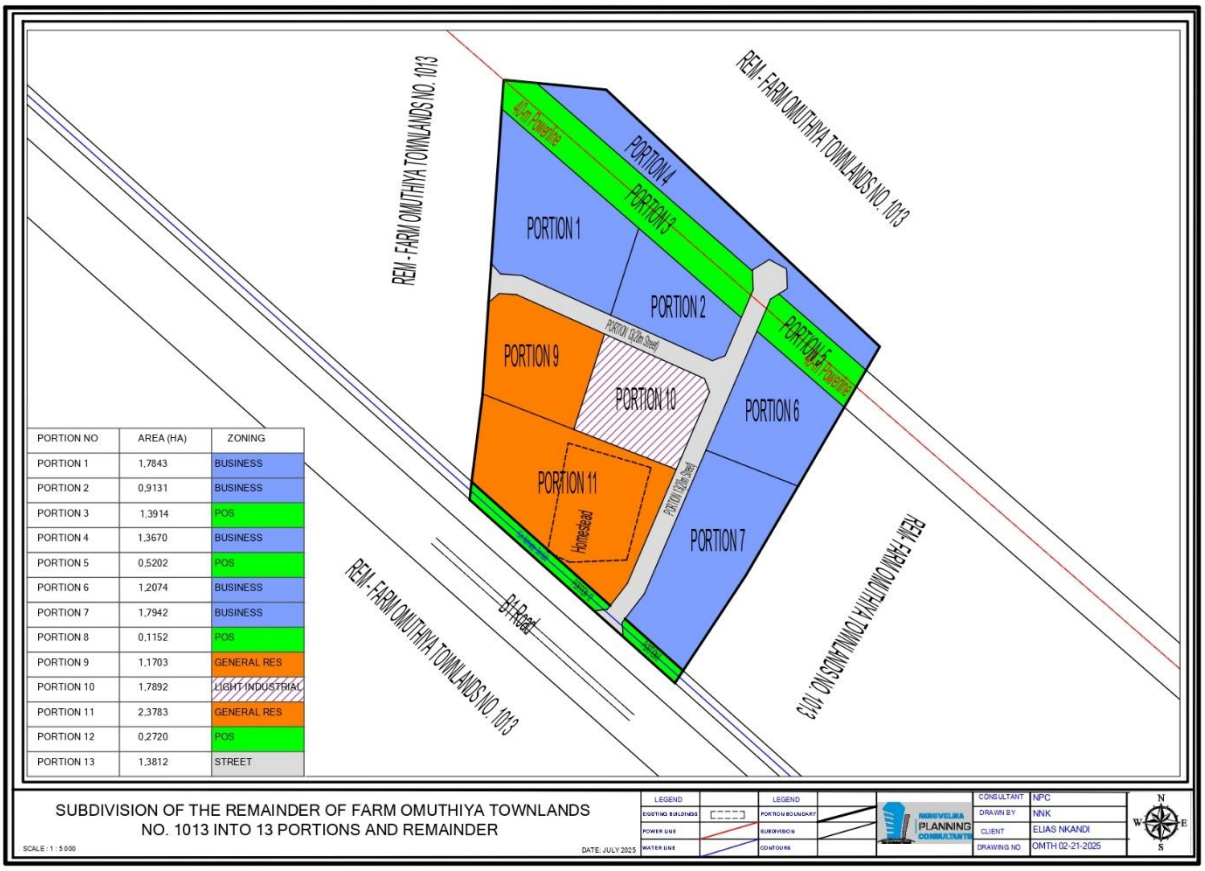
- Although no characteristics of ground slope instability were observed on site, there is a possibility of water accumulation on the property during heavy rain seasons.
- There was no ground surface water during the site investigation as this was done during the dry season. However, water is expected to accumulate in the water ponds during the wet seasons.
- There is minimal erosion in some areas that is caused by seasonal floods.
- Medium excavations can be expected but no blasting operations are foreseen as the soil is not rocky.

## 6.5 Description of the proposed project

The Omuthiya Town Council has resolved to formalize the homestead together with the mahangu field into formal portions that will be developed into various business and residential properties. The proposed portions will be zoned for "General Residential", "Business", "Public Open Spaces", "Light Industrial" and "Street" purposes thus a town planning and environmental management exercise for the subdivision of Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and the subsequent creation of "Street" is being carried out.

## 6.6 Proposed Project Activities

The proposed development entails the Subdivision of Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and the subsequent construction of a "Street". The subdivision plan is shown in figure 2 below.




| PORTION NO | AREA (HA) | ZONING |
|---|---|---|
| PORTION 1 | 1,7843 | BUSINESS |
| PORTION 2 | 0,9131 | BUSINESS |
| PORTION 3 | 1,3914 | POS |
| PORTION 4 | 1,3670 | BUSINESS |
| PORTION 5 | 0,5202 | POS |
| PORTION 6 | 1,2074 | BUSINESS |
| PORTION 7 | 1,7942 | BUSINESS |
| PORTION 8 | 0,1152 | POS |
| PORTION 9 | 1,1703 | GENERAL RES |
| PORTION 10 | 1,7892 | LIGHT INDUSTRIAL |
| PORTION 11 | 2,3783 | GENERAL RES |
| PORTION 12 | 0,2720 | POS |
| PORTION 13 | 1,3812 | STREET |

Figure 2: Subdivision of Remainder of Farm Omuthiya Townlands No. 1013

## 6.7 Engineering Services

The proponent is proposing a contemporary health care facility, several new types of business that are not currently operating in Omuthiya. Upon the completion of the town planning and environmental management exercise the newly created portions will be allocated to MSMEs and residents in Omuthiya Town. The proposed portions will require bulk engineering services as per the standard engineering requirements that are used in the Namibian.

### 6.7.1 Bulk Infrastructure

The bulk services will be available for this development, and additional construction of bulk services is expected.

**a) Water**

The existing infrastructure is not adequate to supply the proposed development; thus, the construction of a new water infrastructure that will be connected to the existing Omuthiya water infrastructure systems is necessary. The water infrastructure will have to be designed and constructed from scratch to allow for the proposed development.

**b) Sewerage**

The existing bulk infrastructure is not adequate for the proposed development, thus additional infrastructure as well as an additional pump station will be constructed in this regard so that the infrastructure can be adequate to pump the effluent produced by the proposed development.

**c) Electricity**

The proposed portions will get electricity from the already constructed electrical network of Omuthiya that is running adjacent the properties.

**d) Storm water**

There is currently no storm water drainage system constructed. Thus, a new water drainage system will be constructed along the street to be created after the subdivision is completed, additional water drainage can be constructed to channel water towards the back of the new portions if it is necessary.

**e) Waste Produced**

The waste to be produced from the properties will be disposed of by the proponent in the general waste containers that will be handled by the Omuthiya Town Council and disposed of at an approved waste disposal site.

**f) Roads**

The proposed development will obtain access from the B1 main road and a 20-meter-wide street will connect the new portions internally. The access roads will have to be constructed for the proposed development to be realized.

### 6.7.2 Blasting

No blasting is to be carried out during the construction of the of the street and buildings as the soil in the area is not rocky and does not require blasting.

## 6.8 Phases of the project

The project will consist of three (3) phases, namely the construction, operational and possible decommissioning phase.

### 6.8.1 Activities during the Construction Phase

**a) Site Office**

The contractor shall construct a temporary site office to manage all activities on side during this phase.

**b) Site clearance and fencing**

There were no protected species of fauna found on the portion during the site visit. However, the clearing of vegetation on site must consider the indigenous vegetation located on the site. For public safety and for the security of construction materials and equipment, the site must be isolated from the public and should be fenced off to prohibit unauthorized access.

**c) Excavation**

Excavations for the construction of the street and building foundations are expected and the soil excavated will be used as construction material and to fill the rest of the portion. Thus, minimal waste is expected to be generated from this activity.

### 6.8.2 Activities during the operation and maintenance phase

During this phase, Oshakati Town Council will be responsible for the following:

- Maintenance of the site, such as waste disposal.
- Controlling the noise pollution in the area.
- Maintenance of the bulk municipal services.
- Maintenance of public parks.
- Maintenance of roads, sewerage and electricity infrastructure.
- Collection of rates and taxes.

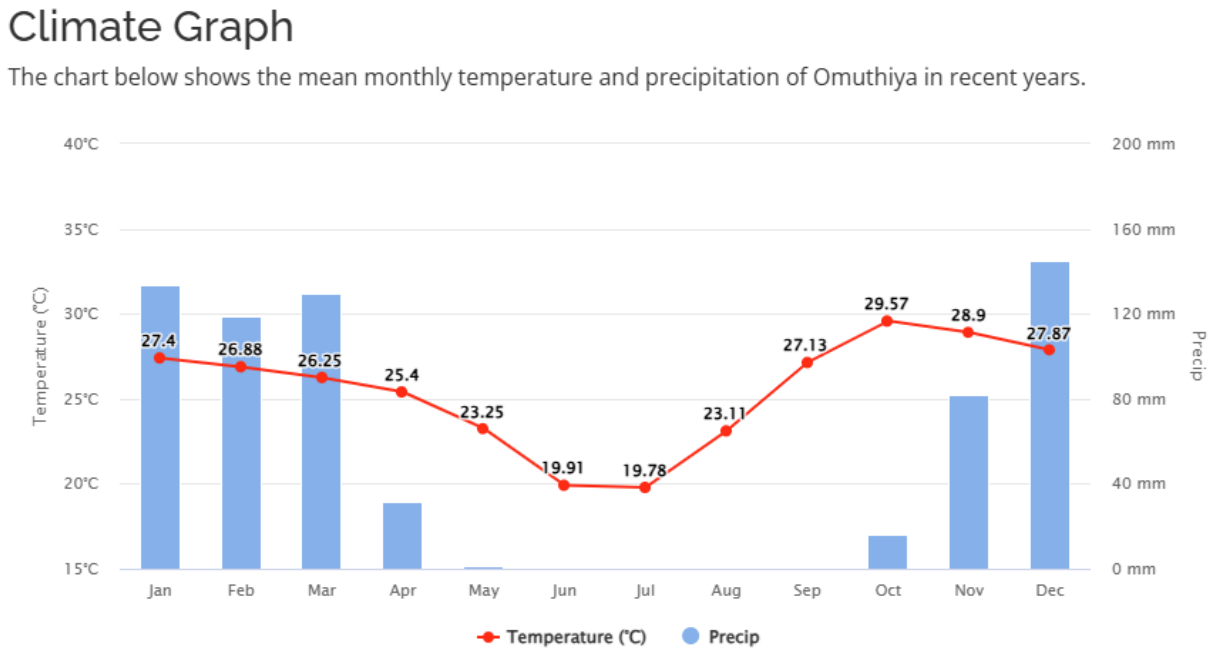
### 6.8.3 Activities at the decommissioning phase

At this stage of the project, it is deemed unnecessary to decommission the project because the Nkandi Family has been residing in the area for a long time as consider it as part of their identity. Thus, they do not foresee themselves leaving the area in the near future. Therefore, there will be no need for decommissioning the project soon.

# 7. BASELINE DATA

## 7.1 Climate and Temperatures

Omuthiya has a Subtropical desert climate (Classification: BWh). The district's yearly temperature is 25.45ºC and it is 0.99% higher than Namibia's averages. Omuthiya typically receives about 54.99 millimeters of precipitation and has 84.68 rainy days (23.2% of the time) annually (Weather and Climate, n.d.). The hottest season being between the months of September to December, with peak heat in October, reaching average highs of 29.57°C and the coolest month is July, with average low temperatures around 19.78°C. Below is a graph hat shows the summarized data of the climate and temperature in Omuthiya.




**Graph 1: Summary of general data**

## 7.2 Geology, Topography and drainage

Omuthiya, in Namibia's Oshikoto Region, lies within the Cuvelai-Etosha Basin, featuring ancient sedimentary formations overlying crystalline basement rocks. The area has deep Kalahari and Namib sands, alluvial soils, and patches of Solonetz soils, with some reports noting red mudstone, siltstone, sandstone, grit, and conglomerate from the Omingonde Formation of the Karoo Sequence.

Omuthiya is located just 10 km from Etosha National Park, a vast depression forming the Etosha Pan, which influences local and regional geomorphology. Low-lying, semi-arid terrain is a result of elevations ranging from 1,070 to 1,106 meters above sea level. With sporadic low-lying depressions like oshanas that fill seasonally, the terrain is primarily level plains. The Oshikoto Region is primarily flat, with isolated areas like the Otavi Mountain Range.

The majority of Omuthiya's drainage features are intermittent (ephemeral) streams, which only convey water during the rainy season and are dry the rest of the year due to the semi-arid climate in which it is located. Despite having a dry climate, Omuthiya is categorized as having a high risk of flooding. The Omuthiyagwipundi district, which includes Omuthiya, has been designated as a high-risk flood zone, which means that potentially destructive floods may happen at least once every ten years.

### 7.3 Vegetation

Omuthiya is in the north-central landscape of Namibia, a region dominated by savanna vegetation growing on Kalahari sand. The broader landscape is part of the North-Central Kalahari Sandveld, with vegetation adapted to semi-arid conditions.

This vegetation type is typical of the Cuvelai Basin's semi-arid north-central landscape. This includes dominant woody species like mopane (Colophospermum mopane), acacias, and Terminalia trees, adapted to sandy soils and seasonal flooding from oshanas (Kabajani, 2021).

Mopane dominates open woodlands, often forming dense stands on heavier clay soils near drainage lines, while thornbush savanna with Acacia species prevails on lighter sands. Grasses and forbs fill understories, supporting grazing but vulnerable to overexploitation and drought (Kabajani, 2021).

Vegetation reflects flat topography, high infiltration rates, and 400–500 mm annual rainfall, with agro-silvo-pastoralism shaping communal lands around Omuthiya. Seasonal wetlands boost diversity near oshanas, though bush encroachment affects productivity (Kabajani, 2021).

### 7.4 Soils

Omuthiya lies within the north-central Kalahari Sandveld, a landscape dominated by sandy soils, shallow drainage channels (Oshanas), and patches of clay-rich areas. The area forms part of the broader Cuvelai–Etaka drainage basin, which influences the soil distribution and fertility patterns.

Large areas of Oshikoto including the area around Omuthiya are covered by deep, loose sandy soils, typical of Kalahari Sandveld. These sands are well-drained, low in nutrients, and support savanna

woodland vegetation. They occur mostly on higher ground surrounding the shallow drainage systems.

The central parts of the north-central landscape, including areas near Omuthiya, are intersected by shallow drainage channels locally known as Oshanas. These depressions contain clayey, sodic soils (Solonetz or Solonchak soils). They have poor drainage, become waterlogged during the rainy season, and dry into hard, cracked surfaces. Below is a table that shows the summary of soil characteristics in Omuthiya (Moller, 1997)

5. Summary of Soil Characteristics in Omuthiya

| Soil Type | Key Characteristics |
|---|---|
| Kalahari Sands (Arenosols) | Deep, loose, sandy, well-drained, nutrient-poor |
| Sodic/Clayey Oshana Soils | Poor drainage, seasonal waterlogging, high salinity |
| Brown Solonetz | Sodium-rich, compacted, found in semi-arid depressions |
| Grey Solonetz | Hard when dry, low infiltration |
| Loamy Sands / Mixed Loams | Better productivity, moderate drainage |

**Table 3: Summary of soils data**

## 8. SOCIO-ECONOMIC ENVIRONMENT

### 8.1 Demographics

According to the 2023 National Population and Housing Census, Oshikoto Region had a population of 257 302, of which the vast majority 81.6% lives in rural areas and the remaining 18.4% live in urban areas. The Census also estimated that Oshikoto Region, the population growth rate is approximately 2.9 % per year, with an average household size of about 4.1 members.

### 8.2 Economic activities

Omuthiya, as the administrative capital of the Oshikoto Region, is primarily driven by public administration. Regional government offices and municipal services form the backbone of the

formal economy, providing structured employment and stimulating demand for retail, transport, hospitality, and construction services.

Omuthiya constituency is home to Etosha National Park. Nehale LyaMpingana gate into Etosha National Park is about 17km from Omuthiya Town. About 6km outside the town, there is a gravel road leading into the Etosha National Park. Etosha National Park is one of the most renowned tourism sites in Namibia and World

The town also has a growing retail sector consisting of small businesses, supermarkets, informal traders, and service providers that serve both the urban population and surrounding rural communities. Although Omuthiya is urban in character, the broader Omuthiyagwiipundi Constituency remains predominantly rural, with many households relying on subsistence agriculture, particularly mahangu cultivation and livestock farming.

In addition, the informal sector plays a significant role in the local economy. Many residents engage in small-scale trading, casual labour, and personal services such as barbering, tailoring, and food vending, contributing to household incomes and local economic sustainability.

### 8.3 Education Profile

Omuthiya serves as the administrative center for the implementation and supervision of education policy since it is the capital of the Oshikoto Region and is located inside the Omuthiyagwiipundi Constituency.

Administering national education policy at the regional and local levels is the responsibility of the Oshikoto Directorate of Education, Arts, and Culture, which has offices in Omuthiya.

There are 229 schools servicing 84,052 students in Oshikoto (2024 data), while precise school counts for Omuthiya Town alone are not known. However, Omuthiya's schools are a part of the larger regional network.

### 8.4 Employment Opportunities

Omuthiya offers employment opportunities primarily in the public sector due to its role as the administrative capital of the Oshikoto Region. Government offices, municipal services, schools, and health facilities provide the main source of formal employment in the town.

Additional employment is generated through the retail and service sector, including shops, supermarkets, transport services, and small businesses. Construction activities linked to housing and infrastructure development also create jobs for skilled and unskilled laborers.

The informal sector plays a significant role in providing income opportunities, with residents engaged in small-scale trading, food vending, tailoring, barbering, and casual work. In the surrounding Omuthiyagwiipundi Constituency, subsistence agriculture and livestock farming further support household livelihoods.

### 8.5 Incomes

Subsistence farming (33%) and labor migration are considered the primary livelihood sources of many households. Much of the employed population are employed in the formal sector making Wages and Salaries 30% the second main source of income in the region. Pensions 19%, non-farming business 10%, Cash Remittance 5% is the means of survival for the rest of the population.

### 8.6 Health Profile

The Oshikoto Regional Health Directorate comprises of 3 District hospitals, 3 Health Centers and 21 Clinics.

HIV prevalence rate: 7.7% for all ages (2012) and 19,5% (2010 sentinel survey for women attending ANC)

- Malnutrition: Moderate is 4% and Severe is 0,5% (MOHSS 2012)
- TB notification rate: 451 (MOHSS 2021)
- TB treatment success rate: 87% (MOHSS 2021)
- High teenage pregnancy rate (16%)

## 9. ANALYSIS OF ALTERNATIVES

In terms of environmental impact assessment best practice, assessment of potential impacts from a proposed activity must include the assessment of alternatives. Assessment of alternatives is undertaken to identify the option that will minimise harm to the environment and may include site, technology and other alternatives, but must always include the option of not implementing the activity, known as the “no-go” alternative.

### 9.1 Alternative Site

The proponent has no other option of undertaking the proposed development in a different location other than the chosen site. This is because the Nkandi family currently resides on the portion and they have resided there for many years. The family also identified this specific portion of land due to its proximity to the existing business centre, its relatively easy access to the main roads and access to municipal services.

Since the proposed portion of land is already earmarked for the development and has offered more advantages than disadvantages for the proposed development, there are no other alternatives to this site, Alternative 1, is the only site that is identified for a mixed-use development. Therefore, no alternative site has been identified or considered during this study.

The following reasons justify the use of the proposed site for the development:

- The Nkandi family has resided on the portion for many years.
- The strategically located near the existing municipal services.
- The site is strategically located to access from the main road.
- The proposed development will create employment and opportunities for local people.
- The development will stimulate the economy of Omuthiya town.
- The development will promote orderly and sustainable development in the town.

### 9.2 The "No Project" Alternative

The No-Go Option is the option not to proceed with the activity, implying a continuation of the current status quo. Therefore, the No-go Alternative would mean that the proposed Subdivision of the Remainder of Omuthiya Townlands no. 1013 into 11 Portions and Remainder and the creation of a "Street" will not go ahead.

Should the proposed development not take place, the Nkandi family will not be able to provide business opportunities to its members, it will not stimulate the economy of the town and will not employ people from the surrounding areas. This can have long term negative effects on the social stability of the town and the surrounding areas. From the environmental-socio-economic point of view, no project option is the least preferred option due to the following factors:

- There will be no socio-economic development in Omuthiya Town.
- Investment in the town will be limited.
- Inhabitants will be deprived of basic health services.
- No employment opportunities will be created for the locals.
- Poverty will not be eradicated in terms of job creation.
- The local skills would remain underutilized.
- Reduced technology advancement at the town and interaction both at local, national and international levels.

This is therefore not a desirable alternative.

## 10. PUBLIC PARTICIPATION PROCESS (PPP)

This section of the report provides details of Public Participation Process (PPP) undertaken in the compilation of the EIA scoping report. In terms of Section 26(1)(h) of the Namibian Environmental

Assessment Regulations (2012), it is a requirement to provide details of the public participation process conducted in accordance with Section 32 of the Environmental Assessment Regulations.

Furthermore, the Public Participation forms an important component of this EIA. It has been defined by the Ministry of Environment and Tourism that an Environmental Assessment Regulations (2012) of the Environmental Management Act (2007), as a process in which potential interested and affected parties such as service providers, traditional leaders, local authorities, environmental groups, village councils and communities, to comment on the potential environmental impacts associated with the proposed project are given an opportunity to comment on, or raise issues relevant to the proposed project and its benefits to the nation and its economy.

Apart from these legal requirements, Consultations with the public and other relevant stakeholders to ensure that their inputs are considered during the decision-making process was carried out as per the EIA regulations.

## 10.1 Aims of the Public Participation Process (PPP)

The aims of the Public Participation Process are but not limited to:

- Informing Interested and Affected Parties (I&APs) of the proposed project.
- Identifying issues, comments and concerns as raised by I&APs.
- Promoting transparency and an understanding of the project and its consequences.
- Serving as a structure for liaison and communication with I&APs; and
- Providing local knowledge and input in identifying potential environmental (biophysical and social) impacts and "hotspots" associated with the proposed development.

## 10.2 Compilation of stakeholder database

The first step in the Public Participation Process (PPP) is to identify key stakeholders. A stakeholder database was compiled and the target groups for this project were invited to comment on the proposed development, the following were invited to Comment:

- Omuthiya Town Council (as the approving authority for town planning projects and service provider for bulk services).
- General public

Please note that some of the interested and Affected Parties are also consulted during the town planning process of the consolidation, subdivision and rezoning of the proposed erven.

### 10.3 Background Information Document

This document provides a short summary of the project and the EIA process. Therefore, a background information document (BID) was prepared and was ready to be distributed to Interested & Affected Parties. After all stakeholder and I&Ap's where informed only one of them requested for the Background Information Document (BID). See a copy of the BID attached.

### 10.4 Notification of I&Aps

The requirements for the notification of potentially interested and affected parties of this application are set out in detail in section 32(2)(b) of the EA regulation. These requirements have been addressed and include.

- Forwarding letters to government authorities and other identified relevant stakeholders.
- Fixing a notice at a place conspicuous to the public in English.
- Placing advertisements twice in at least two local newspapers.

### 10.5 Advertisement

The advertisement of the public participation and submission of comments for the proposed project were placed in two national newspapers circulating in the Omuthiya, the New Era and Confidente Newspapers dated: 24th and 31st October 2025. Proof of advertisements are attached.

### 10.6 Notice Board

An A3 size notice detailing information about the project and the EIA process was at the town planning notice Board of Omuthiya Town Council on the from the 24th October 2025 until the comments period lapsed on the 21st November 2025.

### 10.7 Public Meeting

In compliance with the EIA Regulations (2012), public (I&AP) and all stakeholders were notified as a requirement for EIA process. However, due to a lack of interest from the public, the small-scale nature of the project and the minimal impacts the project is expected to have on the public, a public meeting was not held for this development.

### 10.8 Issues raised by interested and affected parties

The identified key stakeholder in this project is the Omuthiya Town Council. They are also the initiator and one of the competent authorities in the town planning process of this project. Thus, consultations with the town council goes beyond the EIA process and are in favour of the project.

## 11. ENVIRONMENTAL ASSESSMENT METHODOLOGY

An appraisal of the type of effects the proposed Subdivision of Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and subsequent creation of a "Street" would have on the affected environment: rate as either positive (beneficial on the environment), neutral (no impact on the environment), or negative (adverse impact on at a cost to the environment).

| Rating | Description |
|---|---|
| 1 | Negligible / non-harmful / minimal deterioration (0 – 20%) |
| 2 | Minor / potentially harmful / measurable deterioration (20 – 40%) |
| 3 | Moderate / harmful / moderate deterioration (40 – 60%) |
| 4 | Significant / very harmful / substantial deterioration (60 – 80%) |
| 5 | Irreversible / permanent / death (80 – 100%) |

**Table 4: Assessment and rating severity**

| Rating | Description |
|---|---|
| 1 | Less than 1 month / quickly reversible |
| 2 | Less than 1 year / quickly reversible |
| 3 | More than 1 year / reversible over time |
| 4 | More than 10 years/ reversible over time/ life of project or facility |
| 5 | Beyond life of project or facility/ permanent |

**Table 5: Assessment and rating duration**

| Rating | Description |
|---|---|
| 1 | Within immediate area of the activity |
| 2 | Surrounding area within project boundary |
| 3 | Beyond project boundary |
| 4 | Regional/ Provincial |
| 5 | National/ International |

**Table 6: Assessment and rating extent**

Consequence is calculated as the average of the sum of the ratings of severity, duration and extent of the environmental impact.

| | |
|---|---|
| Determination of Consequence (C) | (Severity + Duration + Extent) / 3 |

**Table 7: Determination of consequence**

| Rating | Description |
|---|---|
| 1 | Less than once a year |
| 2 | Once in a year |
| 3 | Quarterly |
| 4 | Weekly |
| 5 | Daily |

**Table 8: Assessment and rating of frequency**

| Rating | Description |
|---|---|
| 1 | Almost impossible |
| 2 | Unlikely |
| 3 | Probable |
| 4 | Highly likely |
| 5 | Definite |

**Table 9: Assessment and rating of probability**

**Likelihood**

Likelihood considers the frequency of the activity together with the probability of the environmental impact associated with that activity occurring.

| | |
|---|---|
| Determination of Likelihood (L) = | (Frequency + Probability) / 2 |

**Table 10: Determination of likelihood**

**Environmental Significance**

Environmental significance is the product of the consequence and likelihood values.

| Rating | Description |
|---|---|
| L (1 - 4.9) | Low environmental significance |
| LM (5 - 9.9) | Low to medium environmental significance |
| M (10 - 14.99) | Medium environmental significance |
| MH (15 - 19.9) | Medium to high environmental significance |
| H (20 - 25) | High environmental significance. Likely to be a fatal flaw |

**Table 11: Determination of environmental significance**

## 11.1 Impacts Associated with Construction Phase

Potential effects on the environment and their mitigation measures during construction are:

**Dust pollution and air quality impacts**- These are expected to be minimal as the construction of bulk services is expected to only take place along a 50-meter stretch of road connecting the portions. The construction will have an impact on the surrounding air quality as construction vehicles will be frequently moving around the site and surrounding areas, however, it is expected to be at a small scale. There is minimal vegetation on site as the site has previously been used as a mahangu field. Thus, it will not be necessary to clear the land before construction commences.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 3 | 4.33 | 5 | 5 | 5 | Negative | 9.33(LM) |
| Mitigation measures:<br>Dust may be generated during the construction/decommissioning phase and might be aggravated when strong winds occur; therefore, dust suppression measures should be employed during the construction process if it becomes an issue.<br>Vehicles travelling to and from the construction site must adhere to the speed limits to avoid producing excessive dust. A speed limit of 40 km/hr should be set for all vehicles travelling over exposed areas.<br>Sand carried in trucks should be covered to avoid loss of materials during transport, especially if the materials are transported to and from the site. | | | | | | | | | |
| Mitigated | 2 | 2 | 1 | 1.66 | 1 | 2 | 1.5 | Negative | 3.16 (L) |

**Employment Creation** (Positive Impact) job creation and economic benefit to the local community since the construction activities will provide employment to the local people.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 1 | 2 | 2 | 1.66 | 2 | 5 | 3.5 | Positive | 5.16 (LM) |
| Mitigation measures:<br>Various employment opportunities will be created during all phases of the development, ranging from highly skilled to unskilled. The development is expected to create more than 100 skilled and unskilled jobs. Preference should be given to locals and Namibian Citizens.<br>When recruiting, the responsible contractor should ensure gender equality is considered and that both men and women are employed equally.<br>Equity and transparency should be considered when hiring and recruiting and that the public participates, I.e. community leaders or community committees in the recruiting process.<br>In terms of human resource development and capacity building, the contractor must enforce training programs that allow skilled workers to train unskilled workers, when necessary, for them to enhance their performance and to gain experience necessary for future employment opportunities. | | | | | | | | | |
| Mitigated | 1 | 2 | 5 | 2.66 | 3 | 5 | 4 | Positive | 6.66 (LM) |

**Noise caused by construction activities**- Noise levels are expected to rise during the construction phase. Construction activities that can cause noise include construction vehicles, electricity generators, pressure hammers, noise from construction workers and earthmoving equipment which will be utilized during this phase. There are traditional homesteads that are currently constructed in the surrounding area, the disturbance to them will be kept at the minimum as construction will only be allowed during the day when most people are at work. The construction of a street and buildings will not disturb residents as the construction activities will be isolated from the existing properties. Therefore, the noise levels that are likely to occur during this phase are not assessed to be only a nuisance to the residents.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 4 | 5 | 2 | 3.66 | 5 | 5 | 5 | Negative | 8.66 (LM) |
| Mitigation measures:<br>Construction should be limited to normal working days and office hours from 08h00 to 17h00 and 7:30 – 13:00 on Saturdays.<br>No construction activities may be undertaken on Sunday.<br>Provide ear plugs and earmuffs to staff undertaking the noisy activity or working in proximity thereof or alternatively, all construction workers should be equipped with ear protection equipment.<br>Noise pollution should be addressed and mitigated at an early stage of construction phase. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Negative | 2 (L) |

**Soil Loss and Erosion**- Loss of topsoil during the construction period caused by the excavation of foundations, and earthworks may expose soils to wind and rain and could result in localized erosion.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 4 | 3 | 3 | 3.33 | 5 | 5 | 5 | Negative | 8.33 (LM) |
| Mitigation measures:<br>No work is to be conducted within 30 metres of all drainage lines.<br>Topsoil should only be exposed for minimal periods of time and adequately stockpiled to prevent the topsoil loss and run-off.<br>Planting more indigenous trees on public open spaces should be carried out.<br>Reuse topsoil to rehabilitate disturbed areas. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 2 | 2 | 2 | Negative | 3 (L) |

**Removal and use of local flora for firewood**- Although no protected flora is on site, collection of local flora for firewood may lead to the removal of the protected flora due to the lack of knowledge of the types of protected flora.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 2 | 3 | 3 | 2.66 | 4 | 5 | 4.5 | Negative | 7.16 (LM) |
| Mitigation measures:<br>No cutting down of trees for firewood.<br>Utilise commercially sold wood or other sources of energy.<br>Use electricity and gas in the construction camps for cooking<br>Training of contractors on environmental awareness and the importance of flora. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 1 | 2 | 1.5 | Negative | 2.5 (L) |

**Health and Safety**- Health and Safety Regulations pertaining to personal protective clothing, first aid kits being available on site, warning signs, etc. should be adhered to. During the construction phase, there is a possibility of injuries to occur if no measures are considered.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 4 | 4.66 | 5 | 5 | 5 | Negative | 9.66 (LM) |
| Mitigation measures:<br>A health and safety plan is to be developed and implemented as soon as land clearing commences.<br>During construction, earthmoving equipment will be used on site, this increases the possibility of injuries. Thus, the responsible contractor must ensure that all staff members are briefed about the potential risks of injuries on site.<br>Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction.<br>The contractor should further ensure that adequate emergency facilities are available on site.<br>The construction staff handling chemicals or hazardous materials must be trained in the use of these materials and the environmental, health and safety consequences if not properly handled.<br>All construction staff must have the appropriate PPE. | | | | | | | | | |
| Mitigated | 2 | 1 | 2 | 1.66 | 1 | 2 | 1.5 | Negative | 3.16 (L) |

**Traffic -** Potential impact due to the increase in traffic caused by the construction activities on site. Construction related activities are expected to have a minimal impact on the movement of traffic along the road. Accidents might occur if unqualified drivers are employed on the proposed development or appropriate signs are not displayed.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 3 | 4.33 | 5 | 3 | 4 | Positive | 8.33 (LM) |
| Mitigation measures:<br>Construction trucks must avoid using the main road to minimize disruptions<br>No diversion of traffic or closure of the road is expected.<br>Traffic signs indicating that there is construction work in the area should be displayed along the main road.<br>Traffic signallers and controllers should be employed to regulate traffic of construction vehicles along the main road. | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| The responsible contractor must ensure that all drivers employed on site are licenced for the type of vehicle they operate and that they have experience in driving those types of vehicles.<br>The contractor must ensure that there is always a supervisor on site to ensure that no driver operates construction vehicle while under the influence of alcohol or narcotics.<br>The construction vehicle's speed limit should be 40km/h and must consider other road users. | | | | | | | | | |
| Mitigated | 2 | 1 | 1 | 1.33 | 1 | 2 | 1.5 | Positive | 2.83 (L) |

**Waste Impacts**- The construction phase is likely to generate waste from the builder's rubble, general construction waste and minor hazardous waste including paint tins, cleaning acids, asphalts and oils. The development could therefore impact on the environment by generating solid waste pollution.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 3 | 4.33 | 5 | 5 | 5 | Negative | 8 (M) |
| Mitigation measures:<br>Ensure that no excavated soil, refuse or building rubble generated on site are placed or disposed of in the surrounding environment.<br>Contaminated waste in the form of soil, litter, building rubble and other material must be disposed of at an appropriate disposal site.<br>The contractor and developer should ensure that all the waste generated by the development is appropriately disposed of at the recommended waste disposal sites.<br>The proponent and contractor should identify an appropriate area that is suitable to be used as a temporary disposal site.<br>Strictly, no burning of waste on site or at the disposal site is allowed as it possess environmental and public health impacts.<br>No construction waste should enter the surrounding environment.<br>To avoid contaminating the soil and underground ecosystem, wastewater should not be disposed on open soil onsite. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 4 | 2 | 3 | Negative | 4 (L) |

**Surface water contamination (Nearby water ponds)** – Leakages from equipment, accidents from fuel tankers may occur during the construction phase and the waste can end up the nearby water ponds during the rainy season.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 5 | 5 | 5 | 4 | 5 | Negative | 9.5 (LM) |
| Mitigation measures:<br>The construction vehicles are not allowed to be parked within 20 meters of the banks of the water ponds after working hours.<br>The construction site camp should be constructed more than 20 meters from the banks of the water pond.<br>No dumping of solid or liquid waste in standing water.<br>The temporary waste disposal site should be constructed at least 20-meters away from standing water.<br>No blockage of any kind that will prevent the storm water from draining naturally is allowed along the adjacent streets. | | | | | | | | | |
| Mitigated | 3 | 1 | 1 | 1.66 | 5 | 3 | 4 | Negative | 5.66 (LM) |

**Groundwater Contamination** – Leakages from equipment and machinery might occur during the construction phase or mixing of cement and the use of ablution facilities will lead to the contamination of the groundwater.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 5 | 5 | 5 | 4 | 5 | Negative | 9.5 (LM) |
| Mitigation measures:<br>Chemicals used during construction e.g. paint and paint remover are a risk. Care must be taken to avoid contamination of soil and groundwater.<br>Ensure no cement or cement containers should be left lying around.<br>Mixing of cement should be done at specifically selected areas on mortar boards or similar structures to contain surface run-off.<br>Proper ablution facilities should be installed at the construction site and at the camping site and arrangements to be made with the Town Council.<br>The contractor should ensure that there is no spillage when the ablution facilities are cleaned or during normal operation and that the contents are properly disposed of.<br>Cleaning of cement mixing equipment should be done on proper cleaning trays. | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Prevent spillage of contaminants or of water potentially contaminated by cement, chemicals, sewage<br>Fuel (diesel and petrol) and oil containers shall be in good condition and placed in a bunded area or on plastic sheeting covered with sand (temporary bunding). | | | | | | | | | |
| Mitigated | 3 | 1 | 1 | 1.66 | 5 | 3 | 4 | Negative | 5.66 (LM) |

**Increased spread of communicable diseases**- migrant workers with HIV/AIDS or Covid -19 may infect local people leading to a high rate of HIV/AIDS, covid-19 and other communicable diseases.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 5 | 5 | 5 | 5 | 5 | Negative | 10(M) |
| Mitigation measures:<br>The spending power of locals and expatriates working for the developer and/or its contractors are likely to increase, and this might be a perfect opportunity for sex workers to explore. Migrant labourers from other regions and expatriates are normally vulnerable and may use the services rendered by the sex workers. A key initiative should be to educate workers. See section 9 (Socio-economic Environment) for details on region statistics.<br>External construction workers should be housed in secure camp and are to abide by rules of the EMP to prevent public disruption (i.e. Spread of HIV/AIDS, crime, public disturbance).<br>Contractors should be encouraged to source labour from surrounding areas to prevent the spread of HIV/AIDs and Covid – 19 from external workers.<br>Condoms as a contraceptive should be distributed to construction employees.<br>All government protocols on Covid – 19 (i.e., wearing masks and social distancing) should be practiced on site. | | | | | | | | | |
| Mitigated | 2 | 1 | 4 | 2.33 | 2 | 3 | 2.5 | Negative | 4.8(L) |

**Heritage Impacts** – There are no known heritage sites or artefacts that were identified on the site. However, there is potential damage or destruction to undiscovered artefacts in the area

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 5 | 5 | 2 | 1 | 1.5 | Negative | 6.5 (LM) |
| Mitigation measures:<br>There were no sites or objects of archaeological nature, Graves, historical and cultural significance identified, however, if during construction any possible finds are made, the operations must be halted and a qualified archaeologist be contacted for an assessment of the findings. Work may only commence once approval is given from the heritage agency.<br>No specific mitigation measures are required now. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 1 | 2 | 1.5 | Negative | 2.5 (L) |

**Ecological Impacts:** No known conservation worthy vegetation are located on the site.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Negative | 1 (L) |
| Mitigation measures:<br>There is no known conservation worthy vegetation located on the site. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Negative | 1 (L) |

## 11.2 Impacts Associated with Operational Phase

Storm water usually runs off the area and flow into the water bodies without any kind of treatment. This can pollute the water bodies like creeks, lakes and rivers and have adverse effects on their chemical as well as biological nature. From this, the street and building plans must include storm water drainage to accommodate the storm water during the rainy season.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 4 | 5 | 3 | 4 | 2 | 5 | 3.5 | Negative | 7.5 (LM) |
| Mitigation measures:<br>Storm water drains to be constructed along the Erf boundaries and be channelled through the street storm water networks, natural water courses, excess storm water to be collected for consumption and recreational use.<br>Storm water will be collected through network of storm drains from gardens, parking areas, paved and unpaved areas, and roadways.<br>The storm water drainage system should have the capacity to prevent flooding of the site and surrounding areas.<br>All buildings to be constructed above the 50-year flood line to avoid flooding of properties. | | | | | | | | | |
| Mitigated | 1 | 1 | 2 | 1.33 | 1 | 2 | 1.5 | Negative | 2.83 (L) |

**Contribution to the economy** - The project will contribute to the economy of Omuthiya Town.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 1 | 2 | 2 | 2 | 5 | 5 | 5 | Positive | 7 (LM) |
| **Mitigation measures**:<br>No mitigation required as this is a positive impact.<br>This project will contribute to the economy of Omuthiya town through the creation and additional serviced erven for residential and business development.<br>The project will improve job creation opportunities for the locals as the small businesses hire employees for their operations, employment is also created during the construction phase.<br>Residents to be provided with services that will improve their quality of living. | | | | | | | | | |
| Mitigated | 1 | 2 | 1 | 1.33 | 5 | 3 | 4 | Positive | 5.33 (LM) |

**Improved aesthetic look of the area** is essential to improve the aesthetics of the area while turning it into an environmentally friendly area with improved infrastructure services. This potential impact of the infrastructure on the economic structure is of a positive nature. The construction should be completed without delay to avoid the site becoming an eyesore.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 2 | 2 | 2 | 2 | 1 | 1 | 1 | Positive | 3 (L) |
| Mitigation measures:<br>No mitigation required because it's a positive impact. However, the developer should create awareness among the residents about energy conservation and other resources as well as to implement measures to prevent or minimize any adverse effects on the environment.<br>This project should provide a quality of life that can be expected in an urban area in relation to the utilities, convenience, amenities and security.<br>This project will provide economic opportunities to the previously disadvantaged youths from the middle to low-income segments of the town's population. | | | | | | | | | |
| Mitigated | 1 | 5 | 4 | 3.33 | 3 | 5 | 4 | Positive | 7.33 (LM) |

**Increased employment opportunities**- the development of several residential and business erven can increase the opportunities of employment for locals.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 2 | 3 | 5 | 3.33 | 3 | 3 | 3 | Positive | 6.33 (LM) |
| Mitigation measures:<br>The principles of gender equality, maximising local employment should be implemented in the provision of jobs during the construction phase.<br>Priority should be given to local people when recruiting, therefore unskilled labourers from the local community should be employed.<br>Jobs for security personnel to patrol the construction site and the surrounding areas will also be created.<br>Equity, transparency, should be considered when hiring and recruiting and that the public be included in the recruitment process.<br>Priority should be given to local MSME's and residents during the allocation of land. | | | | | | | | | |
| Mitigated | 1 | 4 | 4 | 3 | 2 | 5 | 4 | Positive | 6.5 (LM) |

**Traffic** - Potential impact due to the increase in traffic because of the new residences and businesses that will be constructed.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 5 | 3 | 4.33 | 5 | 3 | 4 | Positive | 8.33 (LM) |
| Mitigation measures:<br>The street should be wide enough to accommodate the increase in traffic<br>Sidewalks for pedestrians should be provided along the new properties.<br>Appropriate road signs and markings should be provided in the adjacent streets.<br>Signs should be provided at intersections particularly at higher order intersections.<br>Speed bumps should be installed to control the speed of traffic.<br>Traffic circles to be utilized at high intensity intersections. | | | | | | | | | |
| Mitigated | 2 | 1 | 1 | 1.33 | 1 | 2 | 1.5 | Positive | 2.83 (L) |

**Waste management**- the development will require a more formalized form of waste management and Omuthiya Town Council should be responsible for this.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 5 | 3 | 3 | 3.66 | 5 | 5 | 5 | Negative | 8.66 (LM) |
| Mitigation measures:<br>During the operations phase, the Omuthiya Town Council be responsible for waste management.<br>Omuthiya Town Council to incorporate the new development into their formal waste collection strategy and that the waste is to be collected regularly and to be disposed of at an authorized waste disposal site.<br>Illegal dumping of waste in any form is prohibited. | | | | | | | | | |
| Mitigated | 1 | 1 | 1 | 1 | 1 | 2 | 1.5 | Negative | 2.5 (L) |

**Land use** -The proposed development will result in a change in land use from residential to commercial purposes.

| | Severity | Duration | Extent | Consequence | Frequency | Probability | Likelihood | Status | Confidence/ Significance |
|---|---|---|---|---|---|---|---|---|---|
| Unmitigated | 1 | 5 | 4 | 3.33 | 1 | 5 | 3 | Positive | 6.33 (LM) |
| Mitigation measures:<br>The change in land use will contribute to the efficient use of land in Omuthiya by converting unutilized, non-functional residential land into a highly productive mixed-use area. | | | | | | | | | |
| Mitigated | 1 | 2 | 1 | 1.33 | 5 | 3 | 4 | Positive | 5.32 (LM) |

### 11.5 Impacts Associated with Decommissioning Phase

At this point, it is difficult to visualise and assess the decommissioning phase, although the procedures for decommissioning phase should be the same as for the construction phase. However, there will be possible pollution during the decommissioning phase of the project. Furthermore, during the decommissioning phase, an Environmental Impact Assessment (EIA) will be required and the disposal of decommissioned equipment and hazardous contaminated materials should be disposed following the disposal of hazardous material legislation.

## 12. CONCLUSIONS

The Omuthiya Town Council has resolved to subdivide the Remainder of Farm Omuthiya Townlands No. 1013 into 13 Portions and Remainder and the subsequent creation of a "Street". The statutory town planning exercise is necessary to allow for the Nkandi Family to buy the property that they have inhabited for generations from the Omuthiya Town Council and develop it into contemporary residential and various businesses.

The Remainder of Farm Omuthiya Townlands No. 1013 is currently zoned as "Undetermined" and is situated in the jurisdiction of Omuthiya Town Council located in central Oshikoto Region. For the subdivision of Farm Omuthiya Townlands No. 1013 into 13 portions and Remainder and subsequent creation of "Street" to commence, the statutory town planning and environmental management procedure for the subdivision of land into 13 portions and Remainder and subsequent creation of a street reservation, the statutory town planning and environmental management procedure must be carried out.

Nghivelwa Planning Consultants, a Town and Regional Planning and Environmental Management Consultancy firm has been appointed to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the Subdivision of Farm Omuthiya Townlands No.1013 into 13 portions and Remainder and subsequent creation of a "Street". The Environmental Impact Assessment has been conducted to meet the requirements of the Namibia's Environmental Management Act (No. 7 of 2007).

We further conclude that the proposed development has more positive than negative impacts to the natural environment and will provide much needed economic development through MSME empowerment and employment creation for Omuthiya residents. The development will complement the efforts of the Government of the Republic of Namibia and help with the job creation strategies.

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