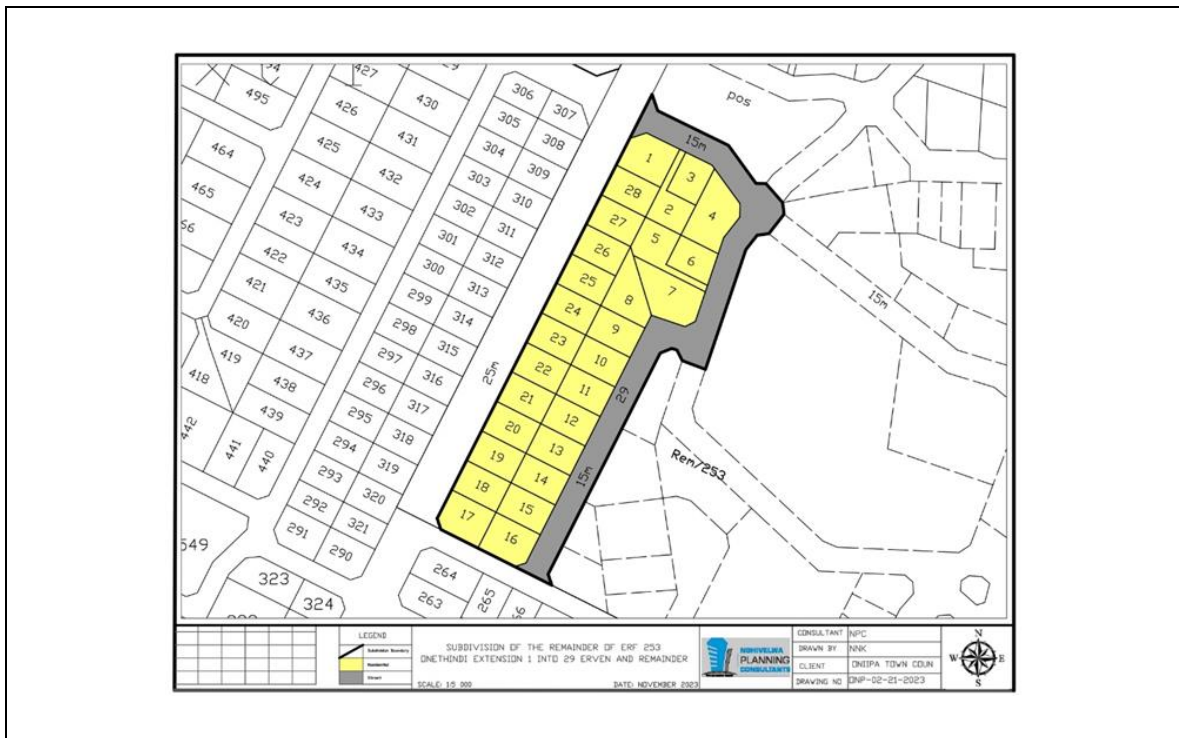


ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

FOR THE
SUBDIVISION OF ERF 253, ONETHINDI EXTENSION 1 INTO ±29 ERVEN AND
REMAINDER AND SUBSEQUENT CREATION OF A “STREET”.



JULY 2024

Prepared by:	Prepared for:
NGHIVELWA PLANNING CONSULTANTS	ONIIPA TOWN COUNCIL
P. O. Box 40900, Ausspannplatz	P O Box 25179, Onandjokwe
CEL: +264 81 4127 359	Tel: +264 65 245 700
E-MAIL: planning@nghivelwa.com.na	Email: rebbeka@oniipatc.org.na

Environmental Management Practitioners:

Name of representative of the EAP	Education qualifications	Professional affiliations
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
Ndati-Onawa N Ndakunda	Master of Science in Integrated Environmental Management and Sustainable Development, BSc (Honors) Geohydrology	Geoscience Council of Namibia, Environmental Scientist (EAPAN Member)

Proponet:

Name	Position/ Role	Address
Oniipa Town Council	Proponent	P. O Box 25179, Onandjokwe

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
NHE	National Housing Enterprise
GRN	Government of the Republic of Namibia
MEFT	Ministry of Environment, Forestry and Tourism
OTC	Oniipa Town Council

Contents

1. INTRODUCTION AND BACKGROUND	5
1.1. Terms of Reference	5
1.2. Acknowledgement	6
2. PROJECT DESCRIPTION	7
2.1. Location of the site	8
2.2. Land Zoning and Ownership	9
2.3. Site Descriptions	9
2.4. Proposed Activities	10
2.5. Need and Desirability of the Proposed Project	11
3. ANALYSIS OF ALTERNATIVES	11
3.1. Alternative Site	11
3.2. The “No Project” Alternative	12
4. POLICY AND OTHER RELEVANT LEGISLATION	13
5. BASELINE DATA	16
5.1. Climatic conditions	16
5.2. Geology, Topography and drainage	16
5.3. Hydrology	17
5.4. Vegetation	17
5.5. Soils	17
5.6. Fauna	17
5.7. Flora	18
6. SOCIO-ECONOMIC ENVIRONMENT	18
6.1. Demographics	18
6.2. Economic activities	18
6.3. Education Profile	19
6.4. Employment Opportunities	19
6.5. Income	19
6.6. Health Profile	19
6.7. Immigration	20
6.8. Acquisition	20
6.9. Tourism	20
6.10. Amenities	20
7. PUBLIC PARTICIPATION PROCESS (PPP)	21
7.1. Aim for Public Participation Process (PPP)	21

7.2.	Compilation of stakeholder database.....	22
7.3.	Background Information Document.....	22
7.4.	Notification of I&Aps.....	22
7.5.	Advertisement.....	23
7.6.	Notice Board.....	23
7.7.	Public Meeting.....	23
7.8.	Issues raised by interested and affected parties.....	23
8.	ENVIRONMENTAL ASSESSMENT METHODOLOGY.....	24
8.1	Impacts Associated with Construction Phase.....	27
8.2	Impacts Associated with Operational Phase.....	38
8.3	Impacts Associated with Decommissioning Phase.....	44
9.	CONCLUSIONS.....	44
10.	REFERENCES.....	46

Table of figures:

Figure 1:	Subdivision plan for Erf 253, Onethindi Extension 1.....	7
Figure 3:	Locality Plan of Erf 253, Onethindi Extension 1.....	8
Figure 5:	Locality Image of 29 Portions of Erf 253.....	9
Figure 8:	Subdivision plans for Erf 253, Onethindi Extension 1.....	10
Table 1:	Legislation related to the subdivision of land and creation of streets.....	16
Table 2:	Assessment and Rating of Severity.....	24
Table 3:	Assessment and Rating of Duration.....	24
Table 4:	Assessment and rating of extent.....	25
Table 5:	Determination of consequence.....	25
Table 6:	Assessment and rating of frequency.....	25
Table 7:	Assessment and rating of probability.....	25
Table 8:	Determination of likelihood.....	26
Table 9:	Determination of environmental significance.....	26

1. INTRODUCTION AND BACKGROUND

The Oniipa Town Council has resolved to Subdivide Erf 253, Onethindi Extension 1 into 29 Erven and Remainder and subsequent creation of a 15-meter street in order to formalize the existing houses already constructed on the property. Proposed Erven 1-29 and the Remainder of Erf 253, Onethindi currently measure ± 2 , 4037 hectares in extent respectively. The erven are both zoned “Residential”. The subdivision of Erf 253, Onethindi Extension 1 into 29 Erven and Remainder will result in the creation of a 15-meter street that will be used as access to the new erven to be created. The subdivision of land and the creation of new streets is a listed activity and thus, requires an Environmental Clearance Certificate.

Therefore, the Oniipa Town Council has appointed Nghivelwa Planning Consultants to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the Subdivision of Erf 253, Onethindi Extension 1 into ± 29 Erven and Remainder and the creation of a street. The statutory exercise is necessary to allow for the formalization of residential properties already constructed and the creation of new residential erven to be allocated to Oniipa residents. The Environmental Impact Assessment has been conducted to meet the requirements of Namibia’s Environmental Management Act, 2007 (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.

EIA thus has three main functions:

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

1.1. Terms of Reference

The proposed Subdivision of Erf 253, Onethindi Extension 1 into ± 29 Erven and Remainder and the 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 the Oniipa Town Council appointed

Nghivelwa Planning Consultant to provide 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 are, but not limited to the following:

- The collection of all possible data on the environmental, social and natural resource components and parameters of necessity;
- 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 neighbouring 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.

1.2. Acknowledgement

Nghivelwa Planning Consultant has prepared this EIA Scoping Report on behalf of Oniipa Town Council as the proponents of this project. The Project proponent has provided the necessary information during the EIA process and preparation of the Scoping Report. The Consultant (Nghivelwa Planning Consultant) gratefully acknowledges the contribution

provided by the proponent as well as the support and interest shown by all the identified stakeholders.

2. PROJECT DESCRIPTION

The project entails the Subdivision of Erf 253, Onethindi Extension 1 into ±29 Erven and Remainder and the creation of a 15-meter street, the properties are located in Onethindi Extension 1, Oniipa Town, Oshikoto Region in the north central part of Namibia. The purpose of the exercise is to formalize the residential properties already constructed on Erf 253, Onethindi Extension 1 and to create new erven to be allocated to the Oniipa residents.

The existing home owners and the Oniipa Town Council are already responsible for the maintenance of the site, such as waste management from site, noise pollution control and safety as well as maintenance of the municipal services.

The subdivision layout of the site is shown in figure 1 below.

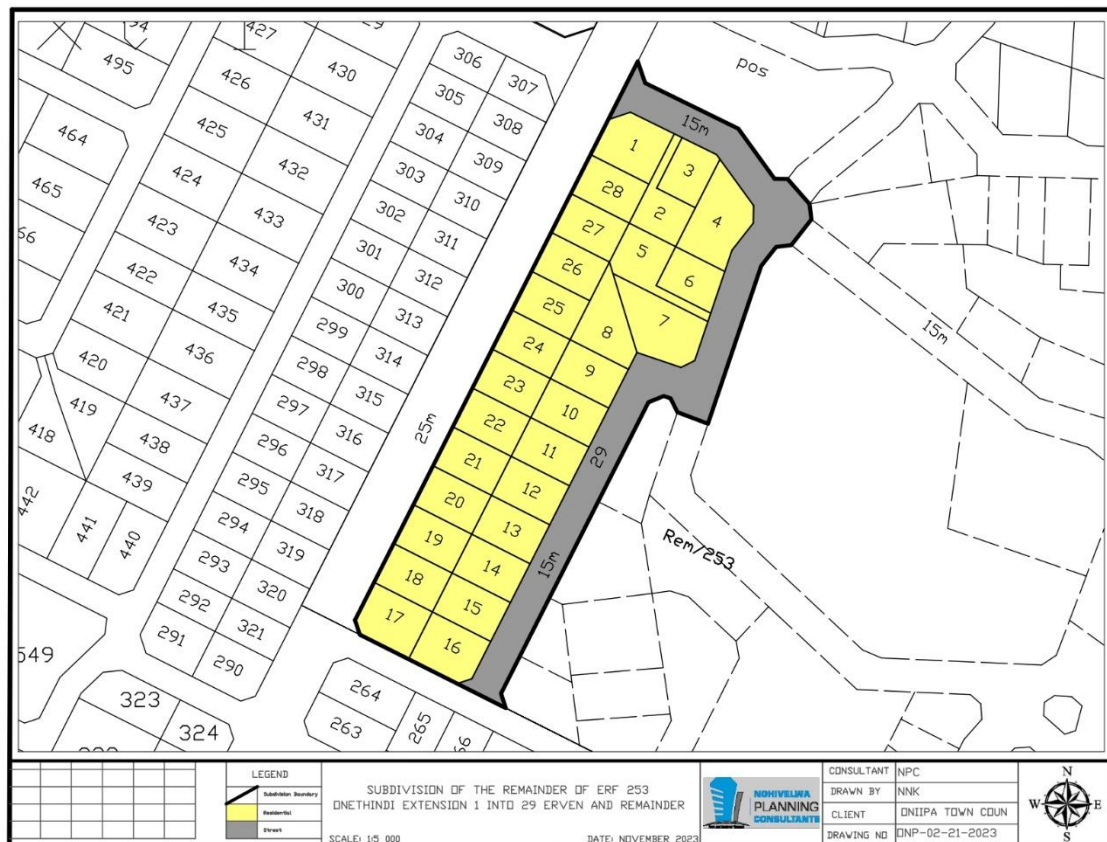


Figure 1: Subdivision plan for Erf 253, Onethindi Extension 1

2.1. Location of the site

Erf 235 is located in Onethindi Extension 1 of Oniipa Town in Oshikoto Region in northern Namibia. The coordinates for the site are: 17° 55.759'S, 16° 1.328'E. The locality plan for the erven is shown below.

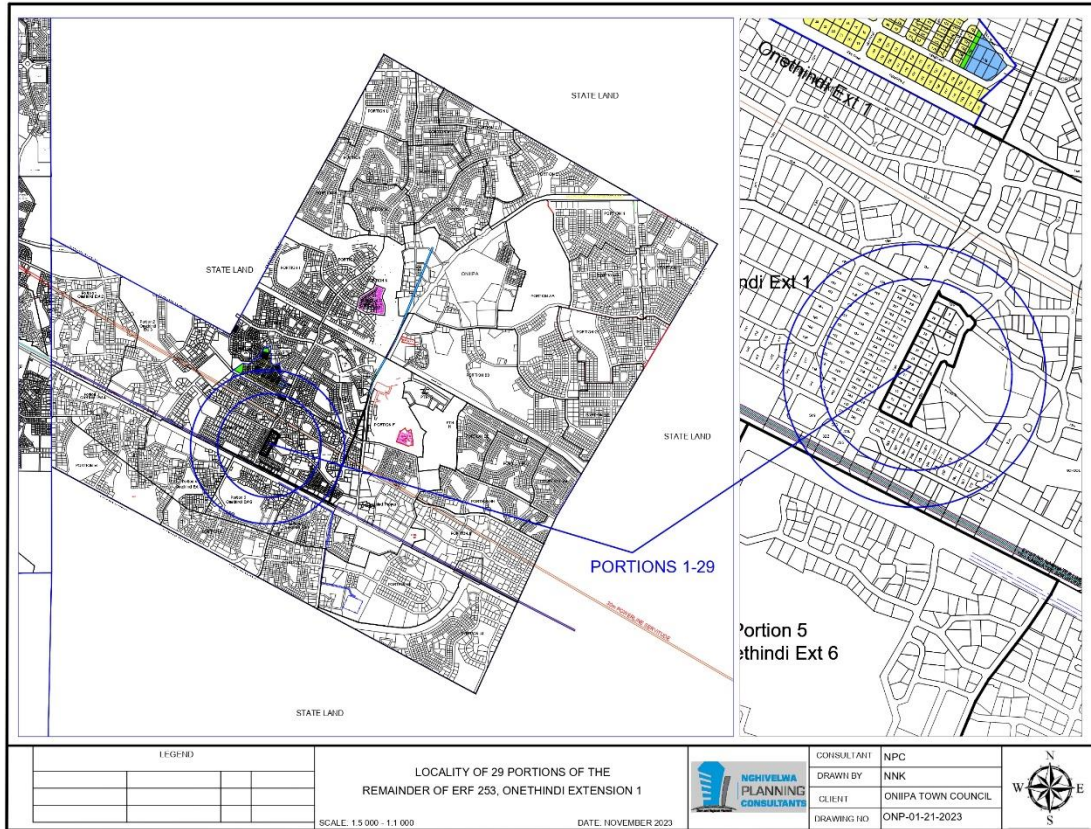


Figure 2: Locality Plan of Erf 253, Onethindi Extension 1.

The google images below shows the locality of the new portions

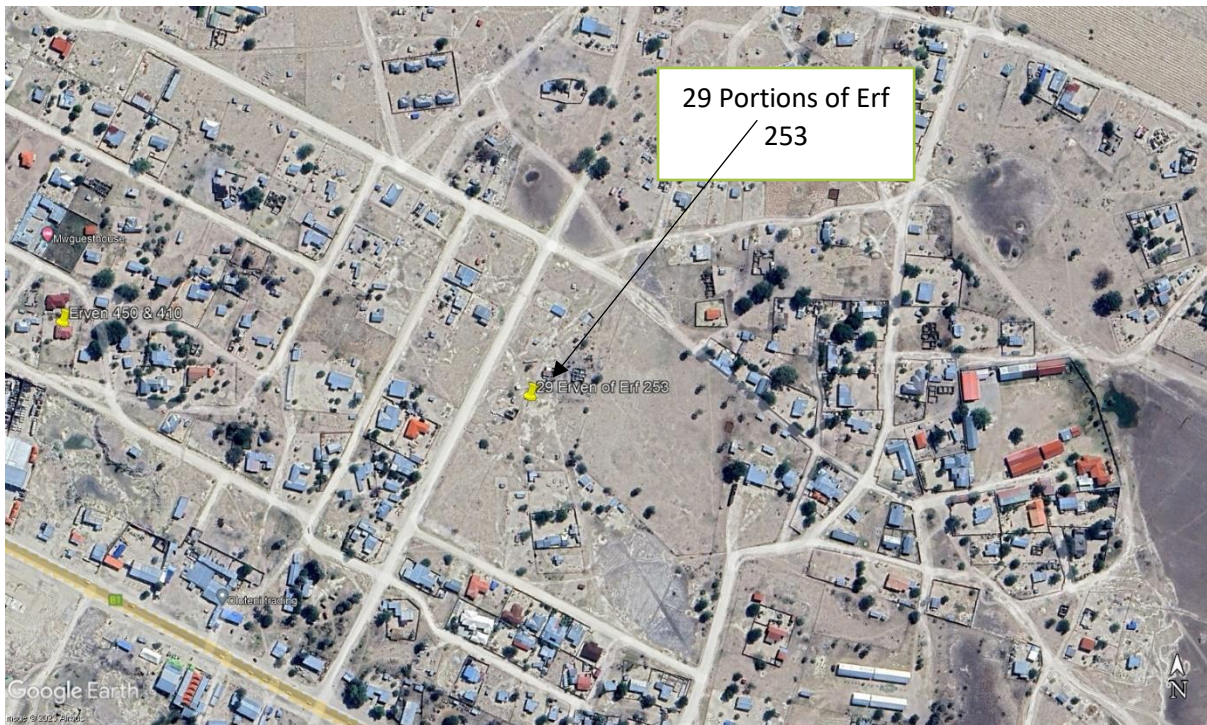


Figure 3: Locality Image of 29 Portions of Erf 253

2.2. Land Zoning and Ownership

Erf 253, Onethindi Extension 1 is currently owned by the Oniipa Town Council. However, there are individual residential properties that have already been constructed on the proposed Portions 1-28 and some are already allocated to private owners. Some of these properties have been occupied before Oniipa was declared a town and there was no formalization process to transfer ownership to the individual owners. Erf 253, Onethindi Extension 1 is zoned for “Residential” purposes, and all proposed portions are to be used for residential purposes.

2.3. Site Descriptions

Proposed Portions 1-29 of Erf 253, Onethindi Extension 1 measure $\pm 2,4037$ hectares in extent and there are residential properties that are currently already constructed on some portions and some portions are still vacant. As per the locality plan in figure 3 and 4, proposed Portions 1-29 of Erf 253 are located in Onethindi Extension 1 on the north westerly direction of Oniipa Town. The area around the subject properties is mostly used for residential purposes, thus the proposed development will blend in with the surrounding environment. The Oniipa Town

Council will have to extend the existing municipal services once the EIA and town planning process is completed.

2.4. Proposed Activities

The proposed activities entail the following:

- Subdivision of Erf 253, Onethindi Extension 1 into ±29 Erven and the Remainder and subsequent creation of a 15-meter street; and
- Construction of the 15-meter street that will offer access for the newly created 29 portions.

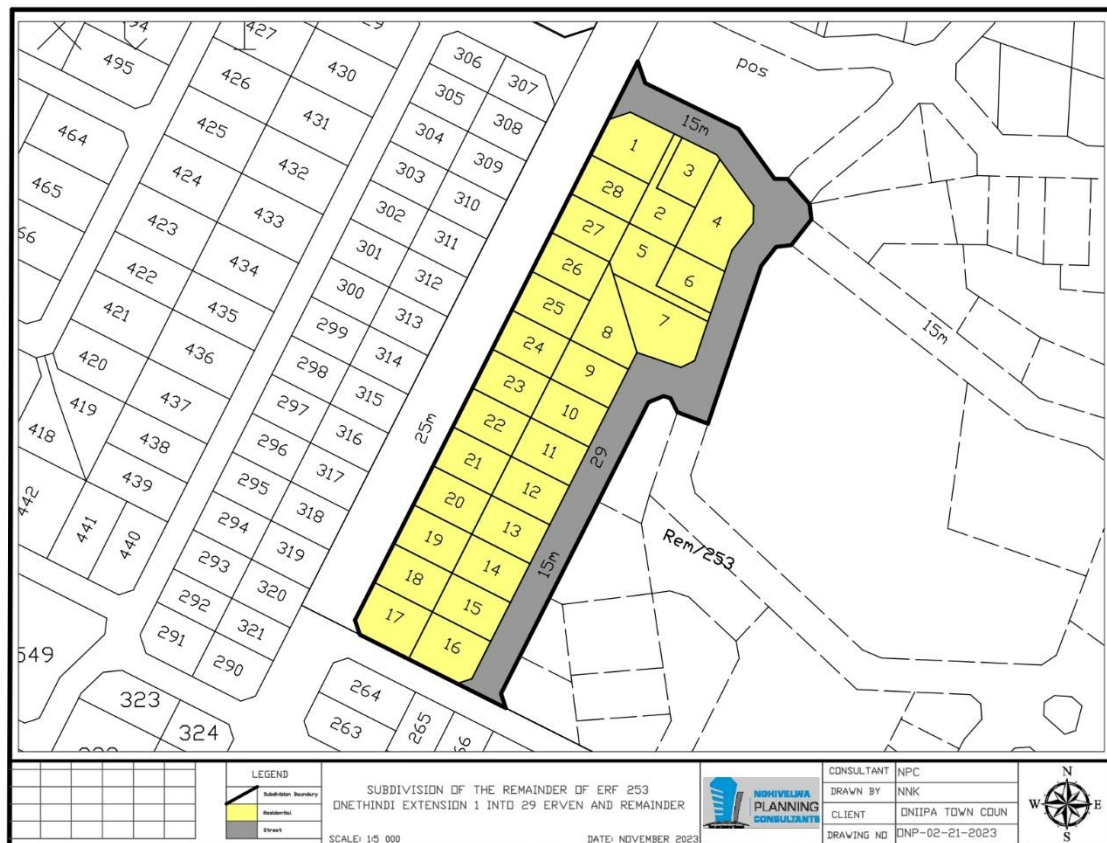


Figure 4: Subdivision plans for Erf 253, Onethindi Extension 1.

After the successful implementation of the town planning procedure, the subdivided erven will still be used for residential purposes and no further subdivision or consolidation with other portions will be carried out.

2.5. Need and Desirability of the Proposed Project

Oniipa was established in 1872 by the Finish Missionary Society as a settlement and a base to coordinate religious activities in the area. In 2014, Oniipa was combined with Onethindi to form a settlement and subsequently designated as a town in 2015. As in most new towns in Northern Namibia, there were already people inhabiting the area at the time of designation, thus, the planning that took place thereafter did not mostly take the local inhabitants into consideration.

Therefore, the Oniipa Town Council wishes to correct that wrong by offering the original inhabitants of the area a chance to reclaim their properties albeit with formalized boundaries. This exercise seeks to formalize the existing houses already constructed on the subject properties and subdivide their land according to Namibia's urban planning standards to ensure orderly planning in the town of Oniipa.

The formalization of the properties will enable the owners to register the new portions into their names and thus giving them security of tenure. The formalization of the proposed portions will also allow the Oniipa Town Council to construct municipal services such as sewer, water, electricity and roads and improve the quality of life of the inhabitants. The formalization will further provide much needed housing to a significant portion of the population of Oniipa.

3. ANALYSIS OF ALTERNATIVES

In terms of environmental impact assessment best practice, assessment of potential impacts from the 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.

3.1. Alternative Site

The proponent has the option of undertaking the proposed development in a different location other than the chosen site. This could also entail acquiring land elsewhere to carry out the development. Due to land availability and the fact that the residential properties are already

constructed and allocated to the beneficiaries, the proposed sites, Alternative 1, are the only sites that have been identified for the proposed development during the consultation process with the proponent (Oniipa Town Council). 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 proponent owns the property and it will not make sense to purchase other land parcels for this project.
- The proposed sites are easily accessible and already connected to existing municipal services such as roads, electricity, water and sewerage connection.
- The erven are in a residential zone, therefore no red data recorded on the land which might hinder the development.
- There is adequate space for new and existing residential properties.
- There residential properties already constructed on the properties.

3.2. The “No Project” Alternative

The No-Go Option is the option not to proceed with the proposed activity, implying a continuation of the current situation/ status quo. Therefore, the No-go Alternative would mean that the Subdivision of Erf 253, Onethindi Extension 1 into ±29 Erven and Remainder and the creation of a 15-meter street does not take place and thus the residential properties already constructed on the property will not be formalized.

Should the proposed development not take place, negative consequences are expected to occur. From the environmental-socio-economic point of view, the no go project option is the least preferred option due to the following factors:

- The existing residential property owners will not be able to transfer the property into their names, thus leaving them without security of land tenure.
- The existing properties might have to be demolished, leading to a wastage of resources and promoting unsustainable construction activities.
- The Oniipa Town Council will not make progress towards the provision of low cost housing to its residents.
- The current land use of the property will not conform to the Oniipa Zoning Scheme.

- Loss of revenue to the Oniipa Town Council and they will not be able to levy rates and taxes on the land.

This is therefore not a desirable alternative.

4. POLICY AND OTHER RELEVANT LEGISLATION

The following are the legal instruments that govern the subdivision of land and the creation of streets in Namibia:

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 subdivision and the creation of streets is carried out within the parameters of the Act.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 487	Details requirements for public consultation within a given environmental assessment process (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).	Ensure that Public participation was carried out in accordance with these regulations and the Urban and Regional Planning Act, 5 2018.
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 should be suitably categorised/classified and disposed of properly and in accordance with the measures outlined in the Ordinance and Bill
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 absolutely necessary.
Water Act 54 of 1956 Water Resources Management Act 24 of 2004	The Water Resources Management Act 24 is presently without regulations; therefore, the Water Act 54 is still in force. The Act provides for the management and protection of surface and groundwater resources in terms of utilisation and pollution	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 out works or activities in relation to a protected place or protected object	Any heritage resources (e.g. human remains etc.) discovered during construction requires a 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 residential settlements in 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.”	The Oniipa Town Council should ensure that all contractors involved during the construction, operation and maintenance of the proposed project, if any, should comply with the provisions of these legal instrument
Water Act 54 of 1956	The Water Resources Management Act 24 of 2004 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force: Prohibits the pollution of underground and surface water bodies (S23 (1)). Liability of clean-up costs after permanent 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 subdivision of land and the creation of streets (S3)	The proposed layout and land uses should be informed by environmental factors such as water supply, soil etc. as laid out in Section 3.
Local Authorities Act no 23 of 1992	Details the procedures to be followed for the permanent closure of public open spaces and streets in Local Authority Areas.	The public must be informed on the proposed development.

Table 1: Legislation related to the subdivision of land and creation of streets

5. BASELINE DATA

5.1. Climatic conditions

Located in the subtropical steppe climate zone, as noted by the Köppen climate classification (BSh), Oniipa, experiences generally arid and warm conditions throughout the year. A review of climate data reveals a high mercury level touching 35.8°C in the peak summer of October, while the minimum temperature noted is 11.3°C in cold July.

A look at the precipitation data reveals a large disparity, with a majority of months (May to September) lacking any rainfall at all. On the contrary, the wettest months are January and December, with respective precipitation levels of 62mm and 61mm. The number of rainy days per month echo this pattern as well, focusing rain activities around the start and end of each year.

Despite the lack of rainfall for a significant portion of the year, Oniipa maintains relatively stable humidity levels, ranging mostly between 17 to 55%. Wind speeds, meanwhile, shift from 9.6km/h to 13.4km/h, with most significant gusts occurring in the colder months of June and July. Cloud coverage appears minimal year-round, reinforcing the arid nature of the climate, with a particularly clear sky during May to September. On the contraction, daylight and sunshine hours are slightly dwindling between May to August but still remain above the 11-hour mark.

5.2. Geology, Topography and drainage

According to NDS, the topography of the Oshikoto region is predominantly flat, gradually descending from north south towards the Etosha pan. In this region, there are no perennial rivers, but at least 3 seasonal rivers of which some forms part of the Cuvelai Drainage system from Angola in the North to Etosha Pan in the South of the region.

5.3. Hydrology

The quality of the groundwater within the region is variable due to the fact that some boreholes provide a good yield at the depths of 10m and 50m. The water quality in the region is varying from drinkable to highly saline water. With Ephemeral River in the region, the water source in the ephemeral can be accessed even by hand-dug pit. The interconnected Ephemeral pans and shallow river courses known as Oshanas are the reminders of the proto-Kunene and Cuvelai systems which are emptied into the inland pan known as the Etosha pan.

The potable water in the region is supplied in piped system from the Calueque Dam in Angola, on the Kunene River, to the major urban settlements within the region. This dam does not only provide water to the Oshikoto Region, it also provides water to the Oshana, Omusati and Oshana Regions. The dam also provides water to the citizens of Angola that are residing in the south western part of that country.

5.4. Vegetation

Oniipa is located 60km north of Etosha pan and thus, there is a variety of vegetation including indigenous trees that are situated in and around the settlement. However, due to human development that has already taken place, there is currently not vegetation that was observed on site.

5.5. Soils

Oshikoto Region is covered by the Kalahari Sandveld which is mainly made up of an Aeolian sand mantle about 50m thick, covering calcretes and sediments. The high evaporation rate in the region makes the soils in the oshanas to be very saline with sodium and Gypsum found in these soils making the soils not suitable for agricultural projects. However, there are clay soils found in Oniipa that enables for agricultural activities in the area.

5.6. Fauna

The Kalahari woodland in the region is mainly dominated by species such as Rhodesian teak, kiaat, mangetti and silver leafed tennianalia. The Ekata and Cuvelai Systems are more ecologically sensitive and support a diverse but depressed fauna as well as fish which are introduced to the system during good rainy years. During rainy season, the bird life picks up in the western part of the Region. However, other places get high numbers of individual species such as Abdim's stork and Flamingo rather than a wide variety of species.

During the site inspection, community's cattle, avifauna and small burrowing species were observed in the area. The surrounding area is currently used for grazing and other agricultural purposes (livestock enclosures). However, most of the mahangu fields have been informally demarcated into smaller plots that locals sell to prospective house owners. The site visit has revealed that it is unnecessary to appoint a specialist to assess the ecology of the area.

5.7. Flora

The proposed site was visited on the 1st of May 2024 and examined for any possible traces of red data or endangered species. It was observed that the proposed site is free from vegetation due to human activities. Thus, no red data or endangered species were noted / recorded during the site visit, therefore it was decided that it is unnecessary to include an ecological specialist study in the report.

6. SOCIO-ECONOMIC ENVIRONMENT

6.1. Demographics

According to the Namibia 2023 Population and Housing Census the total population in Oshikoto Region was 257 302 (NPC, 2023). The population density is 6.653 persons per km² and the Human Poverty index (HPI) is 0.636 compared to National HPI of 20.35. Eighty-six (86 %) percent of the population lives in rural areas and fourteen (14%) percent live in urban areas. Life expectancy is 62 years for females and 52 years in males, resulting in most houses being head by females at 55% and the remainder by males at 45%. The population was divided into 20988, with an average size of 3.6 persons. Most (96%) of the households residing within the Oshikoto Region speaking Oshiwambo (NPC, 2011).

According to Oniipa Town Council website, Oniipa Town had a population of 24 000 residents from diverse cultural background in 2023.

6.2. Economic activities

There has been immense commercial and administrative growth in Oshikoto Region. Oshikoto is commonly an agricultural region, with both crop and livestock farming, with the sector employing more than 50% of economic active population. The trade and service sectors in the urban areas provide employment outside the agricultural sector while manufacturing occurs only on a small scale. However, the main economic activities are centered on agriculture and retail trade, public services such as cuca shops, open air butcheries, and mechanical land panel beating workshops, shoemakers, woodcarving and leather works and mining in the south.

There are popular Open Markets to be found in most towns and villages, while many traders find this an excellent facility to meet their clientele. Modern super markets, restaurants, general shopping facilities, pharmacies, private medical facilities schools and other support services are also available in the Region. The proclamation of settlements, which is a priority with the Regional Council, encourages private entrepreneurs to invest in the region.

6.3. Education Profile

According to (EMIS, 2012) there are 140 Primary schools, 105 Combines school and 28 Secondary schools in Oshikoto Region. The percentage literacy rates for persons older than 15 years in the Oshikoto Region is 88% compared with that of Namibia which is 81%. There are 274 schools altogether, where 257 are state owned and 17 privately owned and other schools there 1 owned by the state. From the 86,430 learners 84,555 are enrolled in public schools while the remaining 1,875 attend private schools. Only 94 of all 3,632 teachers in the Oshikoto Region are without training. The Oshikoto Region is known to yield exceptional results when it comes to academic ratings in the country, most schools offer quality education to the young ones as from primary to high schools. The Region has several tertiary institutions (UNAM and NUST) which provides knowledge and skills in terms of agriculture.

6.4. Employment Opportunities

In the year 2011, 58% of the population older than 15 years were employed and 49% unemployed. The population outside the labor force comprised of students, homemakers and retired or old age persons. The population of Oniipa shows that the median age is 19.8 years, this means that there are more young people of working age in the town that are unemployed. A formal town will encourage investors to set up businesses in the settlement, it will encourage government and non-governmental organizations to set up bases in the town and that will overall increase economic activity and employment within the town.

6.5. Income

According to the 2011 census, the subsistence farming and labour migration were considered the primary livelihood sources of many households. The majority of the employed population (59.7%) are employed in the formal sector making Wages and Salaries 25% the main source of income in the region. Pensions 31%, Non-farming business 10%, Cash Remittance 5% and farming 22% is the means of survival for the rest of the population.

6.6. Health Profile

Oshikoto region has 3 district hospitals, (Oniipa, Omuthiya and Tsumeb) six health centers and 40 clinics and 124 Outreach points. Namibia is one of the ten worst affected countries in terms of the HIV/AIDS epidemic. According to the 2013 Namibia Demographic and Health Survey (NDHS), in Namibia, it is estimated that 14% of adults aged 15-49 and 16.4 % of those ages 50-64 are infected with HIV. Furthermore, the 2014 National HIV Sentinel Survey (NHSS) estimated that amongst pregnant women attending Antenatal Clinics (ANC) in Namibia, the overall prevalence was 16.9% which shows a reduction from 18% in 2012 (NARPR. 2015).

The HIV Prevalence rate among men in Namibia age 15-49 was 10.9%. According to the 2013 (NDHS.2013), the HIV/AIDS prevalence rate among adult pregnant women in the Oshikoto region is 17.4%. The 2013-2014 HIV Prevalence rate survey report shows that the HIV

Prevalence rate among women age 15-49 in Oshikoto Region was estimated to be 21.9% (NARPR. 2015).

Oniipa town has oldest hospital is northern Namibia, the Onandjokwe hospital was established by Finnish Missionaries more than a century ago and today the Directorate of Health and Social Services in Oshikoto Region has plans to upgrade the hospital into one of the largest in the country.

6.7. Immigration

Oniipa together with Ondangwa are affected by the urban and rural migration affecting Namibia. Although it is not at the same rate as other big towns in the country, employment and business opportunities are the main reasons that people migrate to urban areas. The promise of a better life drives mostly young people from their villages into urban areas causing the demand for housing to skyrocket. This might cause discomfort to the local community currently residing in the town as the cost of living goes up, leading to increased stress and conflict over time and leading to the lack of housing resulting in increased informal settlements.

6.8. Acquisition

Jobs emanating from the construction and operation of the proposed municipal services and houses will be outsourced to small medium enterprises in the area and the companies that are awarded contracts to construct the settlement infrastructure will be encouraged to use as much manual labour as possible in order to benefit the locals.

6.9. Tourism

The tourism industry is generally low in Oniipa area due to the lack of tourist attracting activities or structures. However, the Nakambale mission in Olukonda and the construction of several tourists' establishments in the area are boosting tourism activities in the area. Being one of the main transit towns leading to the north of the country, Oniipa is fast becoming important for travelers in transit from the more densely populated northern Namibia to the resource rich southern Namibia.

Oshikoto Region is well connected by roads whereby all tourists can drive through. It can be easily reached from points such Ondangwa, Tsumeb, Eenhana and Okongo. Major roads such as B1 Main Road that that is the main arterial road in the Country passes through the region.

6.10. Amenities

A number of amenities are offered to the residents of the Oshikoto Region. As mentioned in the health profile section, there are three district hospitals, (Onandjokwe, Omuthiya and Tsumeb) six health centers and 40 clinics and 124 Outreach points health care facilities in the region, plus schools, different denomination churches such as the ELCIN, Roman Catholic

Church, Anglican Church and many more, modern banking and financial facilities such as; First National Bank, Standard Bank, Bank Windhoek and Nedbank and Nampost all available in Oniipa, Onyaanya, Omuthiya and Tsumeb as well ATM facilities also available in the region.

Nampost, Standard Bank and a couple of mini ATM's in supermarkets and at service stations are among the banking facilities found in Oniipa. The town has more than 5 state of the art guest houses, a hotel, church, 3 public and 5 private schools a well-developed retail sectors and other service industries.

7. 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. Therefore, 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, Forestry and Tourism, Environmental Assessment Regulations (2012) of the Environmental Management Act (2007), as a process in which potential interested and affected parties such as neighbouring landowners, local authorities, environmental groups, village councils and communities, to comment on the potential environmental impacts associated with the proposed activity and are given an opportunity to comment on, or raise issues relevant to the proposed project and its benefits to the nation and to Namibia's economy. Apart from the legal requirements, public and stakeholder consultations ensure that their comments and views are considered during the decision-making process.

7.1. Aim for Public Participation Process (PPP)

The aims for the Public Participation Process is 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.

7.2. 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 informed and requested to provide comments to this project:

- Oniipa Town Council; and
- General public

7.3. 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. One Interested & Affected Party requested a copy of the background information document. See a copy of the BID attached.

7.4. Notification of I&Aps

The requirements for the notification of potentially interested and affected parties for an Environmental Impact Assessment 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 board at a place conspicuous to the public
- Placing advertisements twice in at least two local newspapers.

7.5. Advertisement

The advertisement of the public participation and public meeting for the proposed project were placed in two local newspapers, the New Era and the Confidente (dated: 19th and 26th April 2024). Proof of advertisements are attached.

7.6. Notice Board

An A3 size notice board detailing information about the project and the EIA process was erected at a recognised public area at the Oniipa Town Council Notice Board and on site on the 19th of April 2024.

7.7. Public Meeting

In compliance with the EIA Regulations (2012), public (I&AP) and all stakeholders were notified as a requirement for EIA process to incorporate the varying needs of stakeholders and I&APs, as well as to ensure the relevant interactions between stakeholders and the EIA specialist team. A public meeting about the proposed development was scheduled to take place on site on the 2nd of May 2024 at 16:00. However due to the lack of interest from the public no one showed up for the meeting.

7.8. Issues raised by interested and affected parties

No comments were received on the project from interested and affected parties (stakeholders), although they were notified about the project.

8. ENVIRONMENTAL ASSESSMENT METHODOLOGY

An appraisal of the type of effect the proposed subdivision of Erf 253, Onethindi Extension 1 and the subsequent creation of streets 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).

Severity

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 2: Assessment and Rating of Severity

Duration

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 3: Assessment and Rating of Duration

Extent

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 4: Assessment and rating of 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 5: Determination of consequence

Frequency

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

Table 6: Assessment and rating of frequency

Probability

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

Table 7: 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 8: 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 9: Determination of environmental significance

8.1 Impacts Associated with Construction Phase

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

Dust pollution and air quality impacts- These are expected to be minimal during the construction of bulk services because it's a low scale extension of services and the sandy soils in the area are not expected to produce a lot of dust during construction. The construction of the streets, sewer and water reticulation services will have an impact on the surrounding air quality because of the use of construction vehicles on the site and surrounding areas, however, it is expected to be at a small scale. The small shrubs will be cleared before construction commences and all large trees found in the area are accommodated within the planning designs.

	Severity	Duration	Extent	Consequence	Frequency	Probability	Likelihood	Status	Confidence/ Significance
Unmitigated	5	5	3	4.33	5	5	5	Negative	9.33(LM)
<p>Mitigation measures:</p> <p>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.</p> <p>Vehicles travelling to and from the construction site must adhere to the speed limits so as to avoid producing excessive dust. A speed limit of 40 km/hr should be set for all vehicles travelling over exposed areas.</p> <p>Sand carried in trucks should be covered to avoid loss of materials during transport, especially if material is transported to and from the site.</p>									
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 associated with the construction of municipal services 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)
<p>Mitigation measures:</p> <p>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 10 skilled and unskilled jobs. Preference should be given to locals and Namibian Citizens.</p> <p>When recruiting, the responsible contractor should ensure gender equality is taken into account and that both men and women are employed equally.</p> <p>Equity and transparency should be taken into account when hiring and recruiting and that Public Participation I.e. community leaders or community committees should also take part in the recruiting process.</p> <p>In terms of human resource development and capacity building, the contractor must enforce training programs that allows skilled workers to train unskilled workers when necessary, in order for them to enhance their performance and to gain experience necessary for future employment opportunities.</p>									
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 of the development. 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 the construction phase. There are businesses and houses that are currently constructed in the surrounding area, the disturbance to them will be kept to the minimum as construction will only be allowed during the day when most people are at work. The disturbance to residents due to the construction of the municipal services will be limited 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)
<p>Mitigation measures:</p> <p>Construction should be limited to normal working days and office hours from 08h00 to 17h00 and 7:30 – 13:00 on Saturdays.</p> <p>No construction activities may be undertaken on Sundays.</p> <p>Provide ear plugs and ear muffs to staff undertaking the noisy activity or working within close proximity thereof or alternatively, all construction workers should be equipped with ear protection equipment.</p> <p>Noise pollution should be addressed and mitigated at an early stage of construction phase.</p>									
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)
<p>Mitigation measures:</p> <p>No work is to be conducted within 30 metres of all drainage lines;</p> <p>Topsoil should only be exposed for minimal periods of time and adequately stockpiled to prevent the topsoil loss and run-off.</p> <p>Planting more indigenous trees along the streets should be carried out.</p> <p>Reuse topsoil to rehabilitate disturbed areas.</p>									
Mitigated	1	1	1	1	2	2	2	Negative	3 (L)

Removal and use of local flora for firewood- 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)
<p>Mitigation measures:</p> <p>No cutting down of trees for firewood.</p> <p>Utilise commercially sold wood or other sources of energy.</p> <p>Use electricity and gas in the construction site camps for cooking</p> <p>Training of contractors on environmental awareness and the importance of flora.</p>									

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 construction phase, there is a possibility of injuries to occur if no measures are taken into consideration.

	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:

A health and safety plan is to be developed and implemented as soon as land clearing commences.

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.

Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction.

The contractor should further ensure that adequate emergency facilities are available on site.

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.

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 increase in traffic caused by the construction activities. 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:									
No diversion of traffic or closure of the road is expected.									
Traffic signs indicating that there is construction work in the area should be displayed in the adjacent street.									
Traffic signallers and controllers should be employed to regulate traffic of construction vehicles.									
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.									
The contractor must ensure that there is always a supervisor on site to ensure that no driver operates a construction vehicle while under the influence of alcohol or narcotics.									
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 of the proposed development is likely to generate waste from the builder's rubble, general construction refuse and minor hazardous waste including paint cans, cleaning acids, asphalt's 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:									
Ensure that no excavated soil, refuse or building rubble generated on site are placed or disposed of in the surrounding environment.									

Contaminated waste in the form of soil, litter, building rubble and other material must be disposed of at an appropriate disposal site. The contractor and developer should ensure that all the waste generated by the development is appropriately disposed of at the recommended waste disposal sites.

The proponent and contractor should identify an appropriate area that is suitable to be used as a temporary disposal site. Strictly, no burning of waste on site or at the disposal site is allowed as it possess environmental and public health impacts; No construction waste should enter the surrounding environment.

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:

The construction vehicles are not allowed to be parked within 20-meters of the banks of the water ponds after working hours.

The construction site camp should be constructed more than 20-meters from the banks of the water pond.

No dumping of solid or liquid waste in standing water.

The temporary waste disposal site should be constructed at least 20-meters away from standing water.

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)
<p>Mitigation measures:</p> <p>Chemicals used during construction e.g. paint and paint remover are a risk. Care must be taken to avoid contamination of soil and groundwater.</p> <p>Ensure no cement or cement containers should be left lying around.</p> <p>Mixing of cement should be done at specifically selected areas on mortar boards or similar structures to contain surface run-off.</p> <p>Proper ablution facilities should be installed at the construction site and at the camping site and arrangements to be made with the Municipality.</p> <p>The contractor shall ensure that there is no spillage when the ablution facilities are cleaned or during normal operation and that the contents are properly disposed of.</p> <p>Cleaning of cement mixing equipment should be done on proper cleaning trays.</p> <p>Prevent spillage of contaminants or of water potentially contaminated by cement, chemicals, sewage</p> <p>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).</p>									
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)
<p>Mitigation measures:</p> <p>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.</p> <p>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).</p> <p>Contractors should be encouraged to source labour from surrounding areas to prevent the spread of HIV/AIDS and Covid – 19 from external workers.</p> <p>Condoms as a contraceptive should be distributed to construction employees.</p> <p>Construction workers should be sensitized about the importance of practicing safe sex.</p> <p>All government protocols on Covid – 19 (i.e., wearing masks and social distancing) should be practiced on site.</p>									
Mitigated	2	1	4	2.33	2	3	2.5	Negative	4.8(L)

Crime Impacts – The influx of workers and equipment to carry out the construction of municipal services might increase incidents of crime.

	Severity	Duration	Extent	Consequence	Frequency	Probability	Likelihood	Status	Confidence/ Significance
Unmitigated	5	5	5	5	2	1	1.5	Negative	6.5 (LM)
<p>Mitigation measures:</p> <p>Criminals might be attracted to the try their luck and steal the construction equipment, personal valuables of a construction workers, etc.</p> <p>The contractor must ensure that there is sufficient security personnel at the construction site camp.</p> <p>The contractor should ensure that the site camp is in an enclosure and there is a controlled entrance.</p> <p>Emergency contact numbers including those of the Namibian Police should be displayed throughout the camp site.</p> <p>Inform the local police of the construction activities and for them to be on the lookout for criminals.</p> <p>Educate construction workers on the human and women rights.</p>									
Mitigated	1	1	1	1	1	2	1.5	Negative	2.5 (L)

Heritage Impacts – There are no known heritage sites or artefacts that were identified on the site. However, there is a 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)
<p>Mitigation measures:</p>									

There were no sites or objects of archaeological finds, 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.

No specific mitigation measures are required at the moment.

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:

There is no vegetation on site and no known conservation worthy vegetation are located on the site.

Mitigated	1	1	1	1	1	1	1	Negative	1 (L)
-----------	---	---	---	---	---	---	---	----------	-------

8.2 Impacts Associated with Operational Phase

Water pollution: 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. The construction of streets also blocks storm water from following their natural courses and thus accumulate and cause damage to the properties nearby. Therefore, the engineering street 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)
<p>Mitigation measures:</p> <p>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.</p> <p>Storm water will be collected through network of storm drains from gardens, parking areas, paved and unpaved areas, and roadways.</p> <p>The storm water drainage system should have the capacity to prevent flooding of the site and surrounding areas.</p> <p>All buildings to be constructed above the 50-year flood line to avoid flooding of properties.</p> <p>All engineering plans for streets to meet the minimum municipal services requirements.</p>									
Mitigated	1	1	2	1.33	1	2	1.5	Negative	2.83 (L)

Contribution to housing - The project will contribute to the housing and economic development efforts of Oniipa Town Council. The potential impact on housing is of a positive nature and will go a long way to benefit both the residents and Town Council.

	Severity	Duration	Extent	Consequence	Frequency	Probability	Likelihood	Status	Confidence/ Significance
Unmitigated	1	1	1	2	5	5	5	Positive	7 (LM)
Mitigation measures:									
No mitigation measures required as this is a positive impact.									
This project aims to formalize residential properties and provide new residential erven.									
The residential property owners will be empowered through security of land tenure.									
The residential property owners will benefit from the provision of municipal services such as water, sewerage and electricity.									
The Oniipa Town Council will collect additional lease fees to enable them to develop additional areas.									
The project will improve job creation opportunities for the locals during the construction and operational phases.									
Residents to be provided with all the basic amenities and utilities required by the community for them to live in a high quality life style.									
Mitigated	1	2	1	1.33	5	3	4	Positive	5.33 (LM)

Improved aesthetic look of the area- The development is essential to improve the aesthetics of the area while turning it into an environmentally friendly township 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 delays 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)
<p>Mitigation measures:</p> <p>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.</p> <p>This development should provide a good quality of life that can be expected in an urban area in relation to the utilities, convenience, amenities and security.</p> <p>This project will provide quality business opportunities to the previously disadvantaged youths from the middle to low income segments of the town.</p>									
Mitigated	1	5	4	3.33	3	5	4	Positive	7.33 (LM)

Increased employment opportunities- the construction of services and formalization of existing houses 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)
<p>Mitigation measures:</p> <p>The principles of gender equality, maximising local employment should be implemented in the provision of jobs.</p>									

Priority should be given to local people when recruiting, therefore unskilled labourers from the local community should be employed. Jobs for security personnel to patrol the construction site and the surrounding areas will also be created. Local SMEs will be subcontracted for the construction of services, increasing the job opportunities for locals. Equity, transparency, should be taken into account when hiring and recruiting and that the public be included in the recruitment process if possible.

Mitigated	1	4	4	3	2	5	4	Positive	6.5 (LM)
-----------	---	---	---	---	---	---	---	----------	----------

Traffic - Potential impact due to increase in traffic because the increase in residents after the formalization process is completed.

	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:

Sidewalks for pedestrians should be provided along the new properties.

Appropriate road signs and markings should be provided in the adjacent streets.

Signs should be provided at intersections particularly at higher order intersections.

Speed humps should be installed to control the speed of traffic.

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 residential properties will require a more formalized form of waste management and Oniipa 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)
<p>Mitigation measures:</p> <p>During the operations phase, the Oniipa Town Council should be responsible for waste management.</p> <p>Oniipa 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 dumping or disposal site.</p> <p>Illegal dumping of waste in any form is prohibited.</p>									
Mitigated	1	1	1	1	1	2	1.5	Negative	2.5 (L)

Land use -The proposed development will result in a slight change in land use as one portion will be used for a street in addition to residential erven.

	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: The change in land use will contribute to the efficient use of land in Oniipa by converting unutilized, non-functional open spaces into residential properties that will benefit the people of the town.									
Mitigated	1	2	1	1.33	5	3	4	Positive	5.32 (LM)

8.3 Impacts Associated with Decommissioning Phase

At this point in time, 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.

9. CONCLUSIONS

In conclusion, The Oniipa Town Council has resolved to Subdivide Erf 253, Onethindi Extension 1 into 29 Erven and Remainder and subsequent creation of a 15-meter street in order to formalize the existing houses already constructed on the property. Proposed Erven 1-29 and the Remainder of Erf 253, Onethindi currently measure $\pm 2, 4037$ hectares in extent respectively. The erven are both zoned “Residential”. The subdivision of Erf 253, Onethindi Extension 1 into 29 Erven and Remainder will result in the creation of a 15-meter street that will be used as access to the new erven to be created. The subdivision of land and the creation of new streets is a listed activity and thus, requires an Environmental Clearance Certificate.

Therefore, the Oniipa Town Council has appointed Nghivelwa Planning Consultants to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the Subdivision of Erf 253, Onethindi Extension 1 into ± 29 Erven and Remainder and the creation of a street. The statutory exercise is necessary to allow for the formalization of residential properties already constructed and the creation of new residential erven to be allocated to Oniipa residents. The Environmental Impact Assessment has been conducted to meet the requirements of Namibia’s Environmental Management Act, 2007 (Act No. 7 of 2007).

We further conclude that the proposed development has more positive than negative impacts to the natural environment and will not only provide much needed development in the form of

residential properties to the residents of Oniipa but will help the Namibian Government to fulfil its promise to provide shelter to all citizens.

10. REFERENCES

Ben J. Strohbach. (2001). Vegetation degradation trends in the northern Owambo Basin Namibia Northern Region.

DEAT (2006) Guideline 5: Assessment of Alternatives and Impacts in support of the Environmental Impact Assessment Regulations, 2006. Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

DEAT (2006) Guideline 4: Public Participation in support of the Environmental Impact Assessment Regulations, 2006. Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

DEAT (2006) Guideline 5: Assessment of Alternatives and Impacts in support of the Environmental Impact Assessment Regulations, 2006. Integrated Environmental Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

Education Management Information System Education Statistics (2011) Environmental Management Act guideline of Namibia. Oshikoto Regional Poverty Profile (2007).

Mandelsohn J., Jarvis A., Roberts C. And Robertson T. (2013), A Profile and Atlas of the Cuvelai-Etosha Basin, RAISON, Namibia.

Miller R.McG. (2008). Geology of Namibia.

Namibia Development Consultant 2001/2006 Oshikoto Region environmental study.

City-facts.com. (2023). [Oshikoto - Population Trends and Demographics - CityFacts \(city-facts.com\)](https://city-facts.com).

Oniipa Town Council. (2024). [Oniipa Town Council – Oniipa Town Council \(oniipatc.org.na\)](https://oniipatc.org.na)