

# ENVIRONMENTAL IMPACT ASSESSMENT

FOR THE PROPOSED CLOSURE OF PORTION A OF ERF 912, OMUTHIYA EXTENSION 3 AS A PUBLIC OPEN SPACE AND SUBSEQUENT REZONING, SUBDIVISION AND CONSOLIDATION WITHIN OMUTHIYA TOWN, OSHIKOTO REGION, NAMIBIA



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## LIST OF ABBREVIATIONS

TERMS	DEFINITION
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Plan
<b>DEA</b>	Department of Environmental Affairs
<b>MET</b>	Ministry of Environment and Tourism
<b>PPPPs</b>	Projects, Plans, Programmes and Policies
<b>NDC</b>	Namibia Development Consultants
<b>SANS</b>	South African National Standards
<b>I&amp;APs</b>	Interested and Affected Parties

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## INTRODUCTION AND BACKGROUND

The Oshikoto Regional Council proposes the closure of proposed Portion A of Erf 912, Omuthiya Extension 3 as a public open space and subsequent rezoning, subdivision and consolidation of the proposed portion within Omuthiya Town, Oshikoto Region in norther Namibia, to cater for the government house constructed on the property.

Nghivelwa Planning Consultant has been appointed to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the closure of proposed Portion A of Erf 912, Omuthiya Extension 3 as a public open space and subsequent rezoning and consolidation within Omuthiya Town, to cater for a government house already constructed on the property. The Environmental Impact Assessment has been conducted to meet the requirements of Namibia's Environmental Management Act, 2007 (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 project for the closure of proposed Portion A of Erf 912, Omuthiya Extension 3 as a public open space and subsequent rezoning and consolidation 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, Oshikoto Regional Council appointed Nghivelwa

Planning Consultant to provide consultancy services to undertake an environmental impact assessment compliant to Environmental Management Act (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 (EMP).
- The consultant will prepare recommendation on the project for its future use.

## **1.2. Acknowledgement**

Nghivelwa Planning Consultant has prepared this EIA Report on behalf of Oshikoto Regional Council. The Project proponent, the Oshikoto Regional Council has been extremely positive in providing necessary information and documents and also in providing necessary guidance during the undertaking of the study and preparation of the report. The Consultant (Nghivelwa Planning Consultant) gratefully acknowledges

the help, advice and information provided by the Regional Council Management as well as the support and interest shown by all the identified stakeholders.

## **2. PROJECT DESCRIPTION**

The proposed development is for the closure of the proposed Portion A of Erf 912, Omuthiya Extension 3 as a public open space and subsequent rezoning and consolidation with a portion of Erf 844, Omuthiya Extension 3 within Omuthiya Town, Oshikoto Region in northern Namibia, to cater for a government house already constructed on the property.

The project involves the formalization of a Building and parking as well as the formalization of the access road to the site from the main street, the formalization of installations of bulk services such as Sewer Water Reticulation the formalization of installed Electricity the formalization of installed Drinking water to the building, and the maintenance of the storm water network which will be the responsibility of the proponent.

Since the site is already developed responsibility for the Waste management from site lies with the Omuthiya Town Council.

## 2.1. Site Locality

Proposed Portion A of Erf 912 is located in Omuthiya Extension 3 in Omuthiya Town, Oshikoto Region, Namibia.

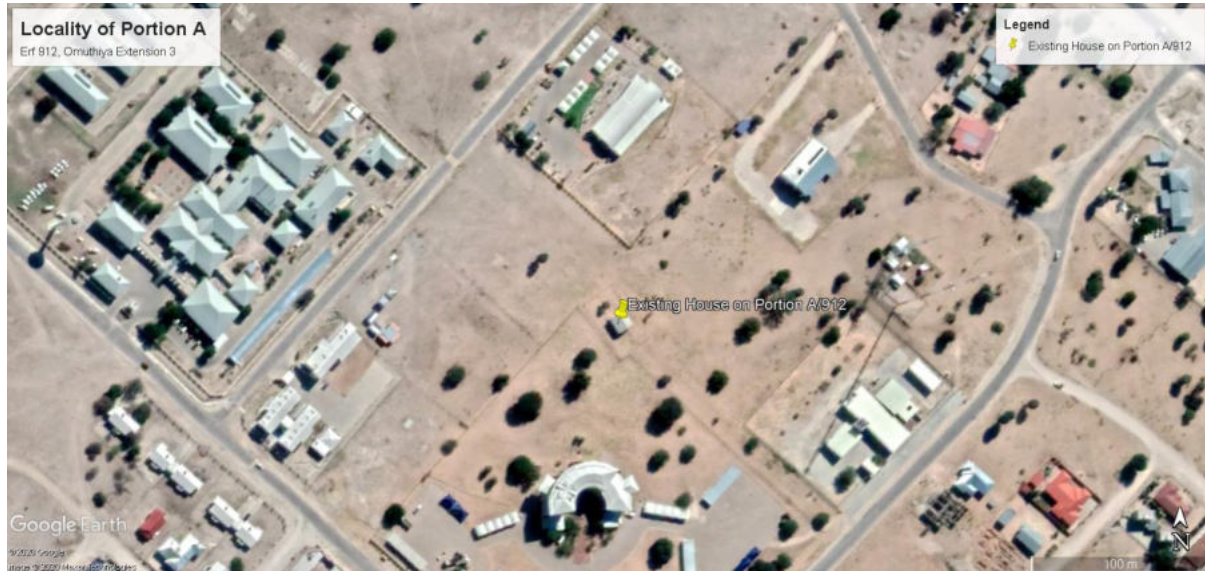


Figure 1: Locality Map

## 2.2. Land Zoning and Ownership

Proposed Portion A of Erf 912, Omuthiya Extension 3 belongs to the Government of Namibia (Oshikoto Regional Council) and is currently zoned as a “Public Open Space”. The Oshikoto Regional Council has constructed a house on proposed Portion A of Erf 912 measuring 2866m<sup>2</sup> without the knowledge that it is located on a public open space. Thus it will be rezoned and formalized to accommodate the Government house for the Council while the remainder of Erf 912, Omuthiya Extension 3 measuring 7388m<sup>2</sup> will remain a Public Open Space, please see subdivision plans attached.

The Remainder of 912, Omuthiya Extension 3 will remain a Public Open Space and be developed into a public resting and relaxing park by the Omuthiya Town Council.

## 2.3. Site Descriptions

Erf 912 is currently zoned for “Public Open Space” measuring 1,28 hectares in size. It is located in Extension 3 of Omuthiya Town. Erf 912 will be subdivided into two



portions which are: Portion A measuring 2866m<sup>2</sup> and the Remainder measuring 7388m<sup>2</sup>. Hence, the Remainder of Erf 912, Omuthiya Extension 3 will still be available as a public open space and be developed into a resting and relaxing park in the near future while Portion A of Erf 912, Omuthiya Extension 3 is to be rezoned to residential to cater for the government house already constructed on the property.

The site is zoned as a Public Open Space. There are prominent numbers of Public Open Spaces in a form of a developed or undeveloped Public Open Spaces. Developed Public Open Spaces are such as public parks, sport fields, walkways etc. This proposed site is already developed and this project seeks to formalize the existing development.



Figure 2: the house already constructed on the property.

## 2.4. Proposed Activities

The proposed activities entail the following:

- Subdivision of Erf 912, Omuthiya Extension 3 into Portion A and Remainder;
- Closure of Portion A of Erf 912, Omuthiya Extension 3 as a Public Open Space; and
- Rezoning of Portion A of Erf 912, Omuthiya Extension 3 from “Public Open Space” to “Residential”.

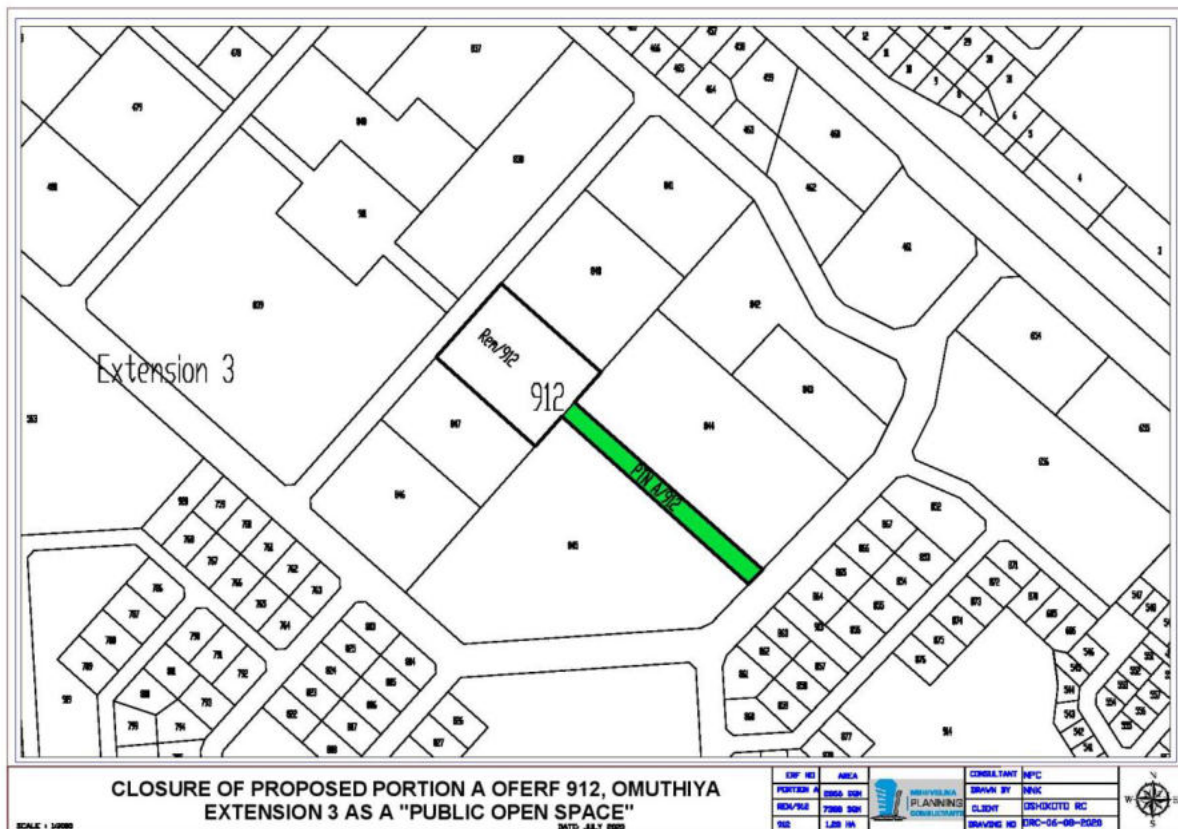


Figure 3: Layout Plan of the Site

Portion A of Erf 912 measures 2866 m<sup>2</sup> and the remainder of Erf 912 measures 7388m<sup>2</sup>, after the successful implementation of the town planning and cadastral procedures, Portion A of Erf 912, Omuthiya Extension 3 (2866m<sup>2</sup>), will be permanently closed as a “Public Open Space” and rezoned to “Residential” and no further rezoning will be allowed.

The Remainder of Erf 912, Omuthiya Extension 3 (7388m<sup>2</sup>) will remain as a Public Open Space to be developed into a resting and relaxation park by the Omuthiya Town Council in the near future.

## **2.5. Need and Desirability of the Proposed Project**

The Oshikoto Regional Council constructed a house on the proposed Portion A of Erf 912, Omuthiya Extension 3 without the knowledge that it is a public open space. This mistake was only discovered a few years later when the house was completed and already inhabiting government employees. Thus, to save government resources a decision was made to formalize the property rather than demolish it.

This formalization will benefit the Oshikoto Regional Council as they will be able to register the property in their name and claim the benefits related to property ownership which will intern benefit the inhabitants of the Oshikoto Region and Government at large.

The formalization will also benefit the Omuthiya Town Council as they will be able to collect property taxes that will help with delivering services to the inhabitants of Omuthiya Town.

## **3. 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.

### **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 demolishing the house and acquiring land elsewhere to carry out the development.

Due to lack of resources, land availability and service connections, the proposed site, Alternative 1, is the only site that has been identified for the proposed development

during the consultation process with the Oshikoto Regional Council and Omuthiya 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 proposed change in land use was found to be ideal for the proposed development for formalizing a Government house.
- The proposed site is easily accessible and already connected to existing municipal services such as roads, electricity, and water and sewerage.
- The government house is already constructed on the property and it will not be prudent to demolish it.
- There is adequate space for the proposed development on the proposed land.
- There are government employees already living on the property and it will not be ideal to relocate them somewhere else.

### **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 no subdivision and rezoning of the Erf 912, Omuthiya Extension 3 will take place. Should the proposed development not take place, serious consequences can be expected. In the environmental-socio-economic point of view, the no project option is the least preferred option due to the following factors:

- There is already a government house constructed on the property;
- There are government employees already living on the property;
- The Omuthiya Town Council is desirous in developing the public open space.

This is therefore not a desirable alternative as the option of not closing the public open space will be detrimental to the environment.

## 4. POLICY AND OTHER RELEVANT LEGISLATIONS

SUBJECT	INSTRUMENTS AND CONTENT	APPLICATION TO THE PROJECT
The Constitution of the Republic of Namibia	<p><i>General human rights – eliminates discrimination of any kind</i></p> <p><i>The right to a safe and healthy environment</i></p> <p><i>Affords protection to biodiversity</i></p>	<p><i>Ensure these principles are enshrined in the documentation of the exploration project</i></p>
Environmental Management Act EMA (No 7 of 2007)	<p><i>Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). Details principles which are to guide all EAs.</i></p>	➤
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 487)	<p><i>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).</i></p>	➤
Forestry Act No 27 of 2004	<p><i>Provision for the protection of various plant species</i></p>	<p><i>Some species that occur in the area are protected under the Forestry Act and a permit is therefore required to remove the species</i></p>
Hazardous Substances Ordinance 14 of 1974:	<p><i>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</i></p>	<p><i>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 and Bill</i></p>
The Nature Conservation Ordinance ( No. 4 of 1975)	<p><i>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</i></p>	<p><i>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</i></p>

Forestry Act 12 of 2001 Nature Conservation Ordinance 4 of 1975	<i>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.</i>	<i>Even though the Directorate of Forestry has no jurisdiction within townlands, these provisions will be used as a guideline for conservation of vegetation.</i>
Convention on Biological Diversity, 1992	<i>Protection of biodiversity of Namibia</i>	<i>Conservation-worthy species not to be removed if not absolutely necessary.</i>
Water Act 54 of 1956 Water Resources Management Act 24 of 2004	<i>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</i>	<i>Obligation not to pollute surface water bodies</i>
National Heritage Act 27 of 2004	<i>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</i>	<i>Any heritage resources (e.g. human remains etc.) discovered during construction requires a permit from the National Heritage Council for relocation</i>
Labour Act 11 of 2007	<i>Details requirements regarding minimum wage and working conditions (S39-47).</i>	<i>Employment and work relations</i>
Health and Safety Regulations GN 156/1997 (GG 1617)	<i>Details various requirements regarding health and safety of labourers.</i>	<i>Protection of human health, avoid township establishment at areas that can impact on human health.</i>
Public Health Act 36 of 1919	<i>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.”</i>	<i>The MET should ensure that all contractors involved during the construction, operation and maintenance of the proposed project comply with the provisions of these legal instrument</i>
Water Act 54 of 1956	<i>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 closure/ abandonment of an activity (S23(2)).</i>	<i>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.</i>

**Table 1: Tools advocating the development**

## **5. BASELINE DATA**

### **5.1. Climatic conditions**

The Oshikoto Region is described as a semi-arid savannah with a rainfall average ranging from 400-500 mm per year. Its climate is classified as a local steppe climate with a subtropical thorn woodland bio zone. The summer season of the region is described as hot with a maximum temperature between 32°C and 38°C during the hottest months and coldest winter temperatures are around 10°C to 16°C. In this Region, December is known as the hottest month of the year, while July is known as the coldest month of the year in the Region. The mean evaporation figure for the Region lies from 3000mm to 3200mm per annum.

### **5.2. Geology, Topography and drainage**

The Region is located in the north of the country and is bordered by the Ohangwena Region to the north and Oshana Region to the west and by the Otjozondjupa region and Etosha National Park to the south. The landscape in the Khomas Region is classified as flat which is characterised by flat terrain. The topography of the proposed site is predominantly flat. The geology of the region is dominated by Sand Dunes.

### **5.3. Soils**

The Khomas Hochland is a deeply dissected mountain land of intermediate elevation, where the geomorphology is closely related to the underlying geology (Christelis and Struckmeier, 2001). The soil cover in the study area is the lithic leptosols referring to shallow soil cover over hard rocks. The main rock type is identified as biotite schist, but with minor strata of micaceous quartzite, feldspathic schist and amphibole schist (Labuschagne, 2004, and Mendelsohn, et al, 2002).

### **5.4. Fauna**

During the site inspection, no animals were seen on the area due to the fact that the proposed site is already developed and habituated by humans.

## 5.5. Flora

According to Lawrence (1971), the vegetation of the region is classified as forest savannah and woodland and comprises a number of Acacia species and numerous species of perennial thorn trees in the valleys and shrubs and grass on the steep slopes. Based on the physical observations on the proposed site, it was observed that the proposed site is generally covered with soil only with no any vegetation type. Therefore, no clearing of land is going to be undertaken as the site has already been cleared and compacted and the Proponent has already acquired a site. No red data or endangered species were noted / recorded during the site visit on the 9<sup>th</sup> July 2020, therefore it was decided that it is unnecessary to include an ecological specialist study in the report.

## 6. SOCIO-ECONOMIC ENVIRONMENT

According to Namibia Population and Housing Census of 2011, Oshikoto Region is experiencing a low but steady rural-urban migration rate in Namibia.

<b>Demographic</b>	<b>Figures</b>
Total	181 973
Females	94 907
Males	87 066
<b>Percentage in Rural/Urban areas</b>	<b>Figures</b>
Urban	13
Rural	87
<b>Languages</b>	<b>Figures</b>
Oshiwambo	87
Others	13
<b>Employment</b>	<b>Figures</b>
Employed (15 year and older)	60
Unemployed	40
The population outside the labour force comprised of students, homemakers and retired or old age persons.	

Table 2: Demographic figures on Socio-Economic Environment



According to the Educational Profile of Oshikoto Region, the Region is well placed with regards to academic rates in the whole of Namibia. According to (EMIS, 2012) there are 96 Primary schools, 14 Combines school and 8 Secondary schools and 6 other schools in total. The percentage literacy rates for persons older than 15 years in the Oshikoto Region is 83% compared with that of Namibia which is 81%.

## **7. PUBLIC PARTICIPATION PROCESS (PPP)**

This section of the report provides details of Public Participation Process (PPP) undertaken in the compilation of the EIA final 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 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 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. Besides these legal requirements, it was also endeavoured to consult the public and other relevant stakeholders to ensure that their voices are heard and taken into account during the decision-making process.

### **7.1. Aim for Public Participation Process (PPP)**

The aims for 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.

## **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 invited to make comments on the proposed development, these were and not limited to:

- Mayor of City of Omutiyya Town;
- CEO of Omutiyya Town;
- Omutiyya Urban Constituency Councillor;
- CRO of Oshikoto Regional Council;
- 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. However, no body requested for it. See a copy of the BID attached.

## **7.4. 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 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 comments for the proposed project were placed in two local newspapers, the New Era and the Confidante (dated: 9<sup>th</sup> and 16<sup>th</sup> July 2020). 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 on 9<sup>th</sup> of July 2020.

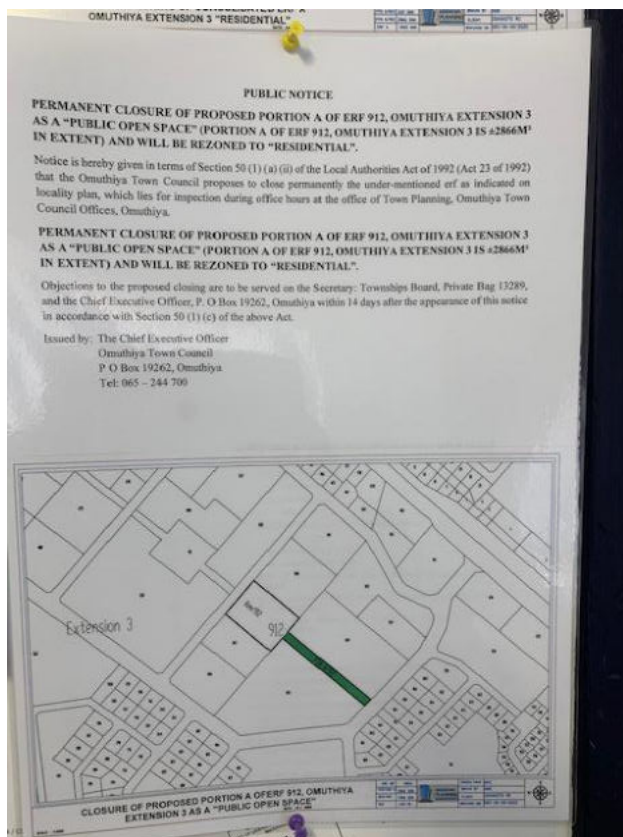


Figure 4: Proof of Notice boards notifications

## 7.7. Public Meeting

In compliance with the Government Regulations on the Covid – 19 Pandemic, no public meeting was held for this project.

## 7.8. Issues raised by interested and affected parties

No comments 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 closure of a public open space 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 3: 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 4: 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 5: 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.

<b>Determination of Consequence (C)</b>	<b>(Severity + Duration + Extent) / 3</b>
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Table 6: Determination of Consequence

### Frequency

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

Table 7: Assessment and Rating of Frequency

### Probability

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

Table 8: 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.

<b>Determination of Likelihood (L) =</b>	<b>(Frequency + Probability) / 2</b>
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Table 9: 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 10: Determination of Environmental Significance

### 8.1. Impacts Associated with Construction Phase

There will be no impact as there will be no further construction to take place as this project only aims to formalize the house that is already constructed.

### 8.2. Impacts Associated with Operational Phase

**Waste management-** Generation of domestic waste while sewage waste will be generated from toilets

	Severity	Duration	Extent	Consequence	Frequency	Probability	Likelihood	Status	Confidence/ Significance
Unmitigated	4	3	3	3.33	5	3	4	Negative	7.33 (LM)
<b>Mitigation measures:</b>									
<ul style="list-style-type: none"> <li>- During the operations phase, the Omuthiya Town Council waste management will manage the waste disposal from the site.</li> <li>- Omuthiya Town Council has developed a formal waste collection strategy and that the waste is to be collected regularly by disposed of at authorized dumping site or disposal site.</li> <li>- Ensure maintenance of sewage system</li> <li>- Illegal dumping should be prohibited.</li> </ul>									
Mitigated	1	1	1	1	4	2	3	Negative	4 (L)

### **8.3. Impacts Associated with Decommissioning Phase**

The house constructed on the property was constructed for more than 5 years ago and there are no current and no plans for further construction activities on site.

## **9. CONCLUSION**

The Oshikoto Regional Council proposes the closure of proposed Portion A of Erf 912, Omuthiya Extension 3 as a public open space and subsequent rezoning and subdivision within Omuthiya Town, Oshikoto Region in northern Namibia, to cater for a government house already constructed on the property. Nghivelwa Planning Consultant has been appointed to conduct an Environmental Impact Assessment and Environmental Management Plan (EMP) for the proposed project.

The potential environmental issues associated with the proposed activities have been identified and assessed. Therefore, they are considered sufficient and no additional specialist study is required. Furthermore, a number of potential impacts were assessed and mitigation measures are provided. The area is generally suitable for the proposed project and there were no objections or critical issues have been raised by I&AP's. Hence, all environmental risks can be minimised and managed through implementing preventative measures and sound management systems. Therefore, the approval of this application would not compromise the integrity of the existing environmental management priorities for the area.



## 10. REFERENCES

- Christelis, G and Struckmeier, W. (2001). Groundwater in Namibia: Explanation to the Hydrogeological map. Windhoek: Ministry of Agriculture, Water and Forestry.
- 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. Khomas Regional Poverty Profile (2011).
- Giess, W. (1971). A preliminary vegetation map of South West Africa. Dinteria 4: 5 – 114.
- Griffin, M. (1998). Amphibian diversity. In: Barnard, P. (ed.). 1998. Biological diversity in Namibia: a country study. Windhoek: Namibian National Biodiversity Task Force.
- 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.