

“Balancing Growth with Resilience”

ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT REPORT

Subdivision: Creation of Public Roads (Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No.41 into 12 Portions and Remainder), Swakopmund, Erongo Region, Namibia

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“The Earth is what we all have in common.”

—Wendell Berry

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Document Status

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PROJECT TITLE	Subdivision: Creation of A Public Roads (Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No.41 into 12 Portions and Remainder), Swakopmund, Erongo Region, Namibia
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COMPETENT AUTHORITY	Environmental Commissioner: Ministry of Environment and Tourism Directorate of Environmental Affairs (DEA) Private Bag 13306, Windhoek, Namibia Tel: (+264-61) 2842111, Fax: (+264-61) 229936
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ABBREVIATIONS USED

- BID Background Information Document
- DEA Department of Environmental Affairs
- EA Environmental Assessment
- ECC Environmental Clearance Certificate
- EIA Environmental Impact Assessment
- EMP Environmental Management Plan
- GG Government Gazette
- GN Government Notice
- ha Hectare
- HIV Human Immunodeficiency Virus
- IUSDF Integrated Urban Spatial Development Framework

Our planet's alarm is going off, and it is time to wake up and take action!

Leonardo DiCaprio

0. EXECUTIVE SUMMARY

I. Introduction

The Municipality of Swakopmund is proposing to create Public Streets / Roads on Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No. 41.

The area is developing at a constant and consistent pace.

The proposed public streets are designed to be an 18m. wide cul-de-sac street. The proposed public street is designed to Swakopmund Council, Ministry of Urban and Rural Development and accepted traffic engineering design standards.

The common practice interpretation of the Environmental Management Act is that the creation and construction of a public street may not be undertaken without an Environmental Clearance Certificate (ECC) in terms of the Environmental Management Act (Act 7 of 2007) and its Regulations. On behalf of the proponent, Swakopmund Municipality, the applicant in this application, the Erongo Consulting Group has been appointed to attend to and complete a Scoping Report and Draft Management Plan (DMP) for the proposed public street.

From the developmental angle, according to UNDP (2017), the causes and effects of poverty are extensive, complex and multifaceted. The challenges faced by Namibia in responding to poverty lie mainly in the implementation of existing policies, plans and strategies as Namibia has created an enabling policy environment for poverty alleviation. The test now is to make programmes work on the ground and in areas where the needs are urgent and concentrated. Serious attention, therefore, needs to be paid to those regions with the highest poverty and inequality levels, rural areas, female-headed households, children, the disabled and pockets within well-off regions such as informal settlements in urban settings.

The proposed infrastructure is one such interventions that would realistically support acceleration of MDG 1, (as well as the Harambee Prosperity Plan, Presidential Infrastructure Initiative). The Subdivision, being done by an independent Town Planner, and the subsequent development of the Public Street, are activities that require an Environmental Clearance Certificate (ECC) before any development like construction is undertaken, as promulgated under the Environmental Management Act 7 of 2007 and its regulations.

ii. Project Description, the Need & Motivation

The proposed land is to be subdivided in accordance with the Swakopmund Town Planning Regulations.

The Municipality of Swakopmund is proposing to create a Public Street / Road on Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No. 41. The area is developing at a constant and consistent pace.

Portions 180 and 181 are designed to be an 18m. wide cul-de-sac street, about 100m. long and with a 25m. turning circle. The proposed public street is designed to Swakopmund Council, Ministry of Urban and Rural Development and accepted traffic engineering design standards. Page | 6

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iii. Planning Principle

Plans and particulars of this application were on inspection at the Swakopmund Municipality between 10 and 31 July 2020. The same applied with the Environmental Clearance Call for Public Participation exercise. The commenting period ran between 10 and 31 July 2020. Advertisement for the permanent closure, subdivision and rezoning of the portion, of Public Open Space (POS), and Environmental Clearance were carried out in terms of the provisions of Section 50 of the Local Authorities Act, 1992 (Act 23 of 1992), as amended, the Town Planning Ordinance, 1954 (Ordinance 18 of 1954), as amended, the Townships and Division of Land Ordinance, 1963 (ordinance 11 of 1963), as well as all town planning and other related legal procedures and the Environmental Management Act (7 of 2007) and its Regulations.

Swakopmund Structure Plan has projected a population increase of 70 000, for which the proposed road construction fits well into the whole development puzzle. The site to be environmentally cleared is proposed to be a new public street portion that gives access to some of the newly created portions in the northern development of Swakopmund.

As such, the proposed development will help define the edge of northern Swakopmund. The area is currently being illegally used as a construction waste dumping site by contractors from the immediate environments – Matutura, Mile 4 and Vineta.

iv. Need for a Creation/Construction of Public Street

Swakopmund is one of the fastest growing economic towns of Namibia. Major projects that have been witnessed in the town include property development, tourism facilities and services as well as industries which are slowly expanding towards the northern side. The proposed Public Streets Creation, as a public space, will directly help change cities for the better.

- **Redefining infrastructure with place-led development:** Cities do not exist without people and it is important to shape the city according to their needs. The design of public places should allow all residents to take ownership of them, so they can become a shared asset that the entire community can enjoy. Actions should be taken to create vibrant and healthy cities for all people regardless of age or social, economic, or ethnic background. Putting parks and play areas within short walking distance, opening the streets to people, and improving safe walking as well as bicycling for people are some of the doable actions that can make a big difference.
- **Integrating Urbanscapes into developmental projects.** Public Streets are instrumental in improving overall quality of life, while also enhancing livability, improving prosperity, and supporting city transformation.;
- **Transforming public spaces and streetscapes.** The walking environment in cities and pedestrian priority on the streets are very important for mobility, which in turn provides accessibility to public spaces for all.
- **Fostering economic development through urban places:** Not only can urban public spaces make people feel better, safe, and included, but they can also foster economic development. The quality of a place leads to attachment, and the attachment leads to higher growth. How could this happen? Because in addition to being sociable, accessible and comfortable, a good place should also be full of uses and activities, which in turn boost the economic activity over there. Portion 6 will likely bring about economic development to the neighborhoods around them – Dunes Mall and the Industrial Park.
- **Creating safer and more inclusive public spaces.** There are several examples of cities in different parts of the world that successfully transformed from violent, criminal and unsafe environments, into inclusive, safer and more livable places. So, besides being joyful, public spaces, like Portion 6, could provide much more to their users.

V. Alternatives

The proposed activity is in line with the objectives of the IUSDF, Biodiversity Report and Swakopmund Strategic Plan 2020 - 2040 as well as Harambee Prosperity Plan and NDP 4. There is no suitable alternative to the proposed development.

vi. Legal Requirements

The proposed activities constitutes a number of listed activities under the EIA Regulations, as promulgated under Section 27(1) and (2) of the EMA. The EIA Regulations describes the process for the submission of applications for authorization subject to the Scoping and Assessment phases. The tasks as documented in accordance with the Regulations of the EIA.

Under section 56 of the Environmental Management Act, 2007 (Act No.7 of 2007), the Minister has made the regulations for Environmental Impact Assessment (EIA) as set out in the Schedule of Government Notice No. 30 (2012). These regulations require that all projects, plans, programmes and policies that have a detrimental effect on the environment be accompanied by an EIA. Under Section 27 of the Environmental Management Act, 2007

(Act No. 7 of 2007), and after following the consultative process referred to in section 44 of that Act, the Minister lists in the Annexure to the above mentioned Schedule, activities that may not be undertaken without an environmental clearance certificate (Government Notice No. 29 of 2012).

VII. Public Consultation / Participation

the Public participation / Consultation exercise was carried out by the Consultant in accordance with the Environmental Management Act 7 of 2007 and its Regulations as well as the Four Cornerstone of the with the Four Cornerstones of the Earth Summit - Agenda 21; Convention on Biological Diversity; Framework Convention on Climate Change; and The Rio Declaration on Environment and Development. Various I&APs at local level were identified and their input solicited. Particular effort was exerted to involve I&APs at a local level. The Commenting Period stretched between 17 and 31 July 2020.

The Consultant made use of the print median – New Era and Namib Times, Social Media – Facebook, Posters, as well as a Site Notice.

VIII. Impact assessment

The issues identified by Erongo Consulting Group, and along with those identified during the Commenting period / Public Consultation Process are assessed using a range of assessment criteria. The application of these criteria involves a balanced consideration of duration, extent, and intensity/magnitude, modified by probability, cumulative effects, and confidence in order to determine significance. Mitigation measures are outlined for each perceived impact.

IX. Conclusions and recommendations

It is therefore recommended that the proposed development (as described in this Report) and the following associated activities receive Environmental Clearance Certificate provided the recommendations included in this report and the EMP are religiously implemented.

1. INTRODUCTION

1.1 Background

Swakopmund is one of the fast-growing centres of Erongo Region and the proposed Public Street construction and related infrastructure is a clear indication of various developments planned for the harbour town. Such a development is one of suites of the town planning instruments used for future spatial planning. In particular Township Establishment is a large-scale form of subdivision of land for urban use.

As per the Environmental Management Act (7 of 2007), such a development cannot take place without Environmental Scoping having been completed and environmental clearance certificate issued.

The proposed development directly falls under and within the Swakopmund Municipal area of jurisdiction.

Namibia has a number of legislations dealing with environmental related issues, which determines the objectives guiding, and the strategies to be used in order to strengthen the respect for environmental values, taking into account the existing social, cultural and economic situation. The foundation for the Namibian environmental policy framework is Article 95 (l) of the Constitution.

According to the Environmental Management Act No.7 of 2007 and its Regulations, changing of land use to business requires an Environmental Clearance Certificate (ECC) that will enable the Environmental Commissioner to examine whether or not the proposed land use will negatively affect the surrounding area.

The ECC is required in terms of the Environmental Management Act of 2007 and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

The purpose of this document is to prepare Environmental Clearance for the above-mentioned activity.

1.2 Terms of Reference (ToRs)

The Terms of Reference for the proposed project is based on the requirements set out by the Environmental Management Act (2007) and it's EIA Regulations (2012). The process covered the following steps, which are reported on in this document as follows:

- Provide a detailed description of the proposed activity;
- Identify all legislation, policies and guidelines that have reference to the proposed project
- Identify existing environmental (both ecological and socio-economic) conditions of the receiving environment in order to determine environmental sensitivities;

- Inform Interested and Affected Parties (I&APs) and relevant authorities of the details of the proposed development and provide them with a reasonable opportunity to participate during the process ;
- Consider the potential environmental impacts of the development, and assess the significance of the identified impacts.
- Outline management and mitigation measures in an EMP to minimise and/or mitigate potentially negative impacts, which cannot be avoided.

1.3 Legal Framework Consulted

The site is zoned residential in terms of the Swakopmund Town Planning Scheme, which permits a wide range of industrial and related activities. Following subdivision, the site will be developed with residential plots and other amenities, and therefore a public road is a primary right on a residential setting.

The cul-de-sac street as part of the subdivision is in accordance with Ministry of Urban and Rural Development policy directives relating to Town Planning Standards and Urban Design Guidelines. The cul-de-sac street as part of the subdivision is also in accordance with the ALAN/NAMPAB panhandle policy. These cul-de-sac design criteria comply with common traffic engineering design guidelines.

There are no restrictive title deed conditions that restrict or prevent the subdivision.

However, the following table identifies the laws and policies that have been considered in the preparation of this Scoping Report:

Table 1:1: Laws And Policies Applicable To The Proposed Activity And Considered In The EIA Report

LEGISLATION/ GUIDELINE	RELEVANT PROVISIONS	IMPLICATIONS FOR THIS PROJECT
Namibian Constitution First Amendment Act 34 of 1998	“The State shall actively promote... maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future” (Article 95(I)).	Ecological sustainability should inform and guide this EA and the proposed development.
Environmental Management Act EMA (No 7 of 2007)	<ul style="list-style-type: none"> ▪ Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). ▪ Details principles which are to guide all EAs. 	The EMA and its regulations should inform and guide this EA process.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	<ul style="list-style-type: none"> ▪ 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). 	
Forestry Act 12 of 2001 Nature Conservation Ordinance 4 of 1975	<ul style="list-style-type: none"> ▪ 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 	Even though the Directorate of Forestry has no jurisdiction within townlands, these provisions will be used as a guideline for conservation of

LEGISLATION/ GUIDELINE	RELEVANT PROVISIONS	IMPLICATIONS FOR THIS PROJECT
	species.	vegetation.
Labour Act 11 of 2007	Details requirements regarding minimum wage and working conditions (S39-47).	The Swakopmund Municipality should ensure that all contractors involved during the construction, operation and maintenance of the proposed project comply with the provisions of these legal instruments.
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers.	
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.”	
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 NHC for relocation.
Burial Place Ordinance 27 of 1966	Prohibits the desecration or disturbance of graves and regulates how bodies may be unearthed or dug up.	Regulates the exhumation of graves.
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: <ul style="list-style-type: none"> ▪ Prohibits the pollution of underground and surface water bodies (S23(1)). ▪ Liability of clean-up costs after closure/ abandonment of an activity (S23(2)). 	The protection of ground and surface water resources should be a priority. The main threats will most likely be concrete and hydrocarbon spills during construction and hydrocarbon spills during operation and maintenance.
Town Planning Ordinance 18 of 1954	Subdivision of land situated in any area to which an approved Town Planning Scheme applies must be consistent with that scheme (S31).	The proposed use of the project site must be consistent with the Swakopmund Town Planning Scheme
Townships and Division of Land Ordinance 11 of 1963	Details the functions of the Township Board including what they consider when receiving an application for Township Establishment (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.
Road Ordinance 1972 (Ordinance 17 Of 1972)	<ul style="list-style-type: none"> ▪ Width of proclaimed roads and road reserve boundaries (S3.1) ▪ Control of traffic on urban trunk and main roads (S27.1) ▪ Rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads (S36.1) ▪ Infringements and obstructions on and interference with proclaimed roads. (S37.1) ▪ Distance from proclaimed roads at which fences are erected (S38) 	The limitations applicable on RA proclaimed roads should inform the proposed layout and zonings where applicable.
Swakopmund Town Planning Scheme (TPS)	This statutory document provides land use regulations and development.	Land uses and developments should be in accordance with

LEGISLATION/ GUIDELINE	RELEVANT PROVISIONS	IMPLICATIONS FOR THIS PROJECT
Sustainable Urban Energy Planning: A Handbook For Cities And Towns In Developing Countries (SUEP:2004)	Provides a comprehensive list and case studies to implement energy saving measures.	the TPS. Implementing energy-efficiency and carbon mitigation measures. Conserve natural resources with city planning.



2. PROPOSED PROJECT DESCRIPTION

2.1 Description of the Proposed Activity

The site is an existing site in an existing proclaimed industrial township. The subdivision application results in 12 portions, of which 1 portion being a public street. Attached is a copy of the subdivision sketch plan – portion 6 is the street and which is a cul-de-sac street, as illustrated below:

2.2 Zoning, Land Use and Site Size

The site is zoned residential in terms of the Swakopmund Town Planning Scheme which permits a wide range of industrial and related activities. Following subdivision, the site will be developed with residential plots and other amenities or service industries which are a primary right on a residential zoned piece of land.

Environmental Impact Assessment (EIA) is mandatory in cases where a street is being created as per the Environmental Management Act (Act No. 7 of 2007). The EIA is therefore a prerequisite for the subdivision of the Remainder of Portion B of the Swakopmund Town and Townlands No. 41 into twelve portions, namely Portion 165 to 176 and Remainder Street.

Below is an extract out of the Environmental Management Act for ease of reference:

- 27. (1) The Minister, after following the consultative process referred to in section 44, may list, by notice in the Gazette, activities which may not be undertaken without an Environmental Clearance Certificate.
- 10.2 The route determination of roads and design of associated physical infrastructure where -
 - (a) it is a public road;
No. 4878 Government Gazette 6 February 2012 7
 - (b) the road reserve is wider than 30 meters; or
 - (c) the road caters for more than one lane of traffic in both directions.



Figure 2.1: Zoning and Land Use – Portions 180 and 181

The site is notionally vacant and measures about 1km in extent. There is no minimum erf size for a residential zoned erf so it is theoretically possible to subdivide the site into any number of viable portions.

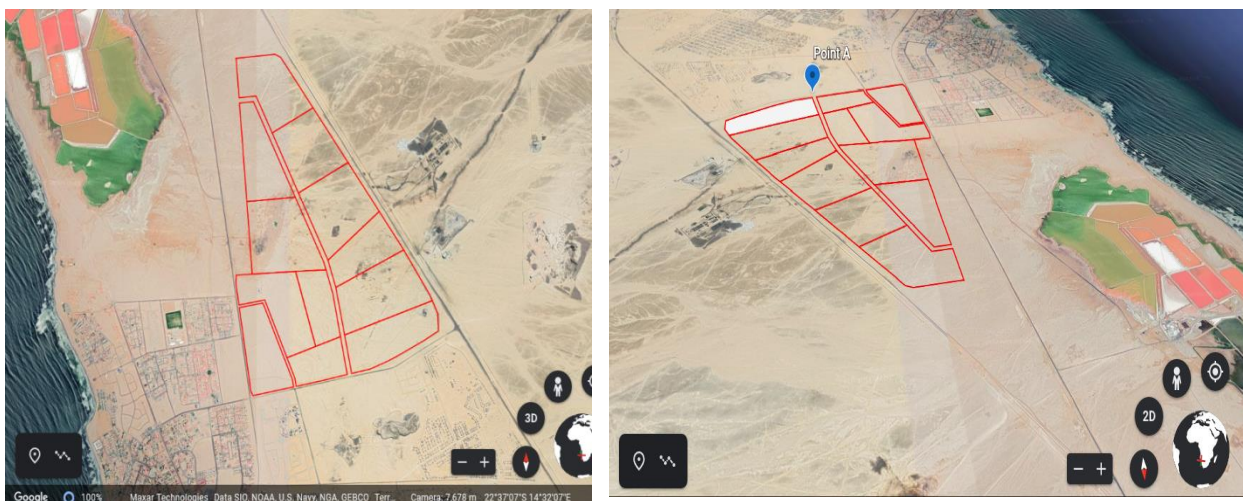
As the subdivision is less than 12 portions there is no statutory requirement for a Need and Desirability application for approval by NAMPAB.

Although no pure retail activities are to be developed on the site, pure retail activities will require consent use and possible rezoning. Should a service station be developed after subdivision an Environmental Clearance Certificate will be required in terms of the Environmental Management Act which will require separate statutory procedures.

2.3 Ownership

The piece of land to be subdivided and create public streets solely falls under the Swakopmund Municipality. The two proposed streets will be subsequently registered by the Swakopmund Municipality.

Figure 2.2: 2D & 3D & Locality Plans of Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No.41





The general landscape of the area

2.4 Proposed Subdivision

The proposed subdivision, including a Cul-de-Sac Street Portions (Portions 180 and 181) will be as follows:

PORTION	LAND-USE ZONING
165	Local Residential
166	Local Residential
167	Local Residential
168	Local Residential
169	Local Residential
170	Local Residential
171	Local Residential
172	Local Residential
173	Local Residential
174	Local Residential
175	Local Residential
176	Local Residential
177	Local Residential
178	Local Residential
179	Local Residential
180	Public Street
181	Public Street

Portions 180 and 181 (cul-de-sac streets) is 80m. long, 18m. wide with a 28m. turning circle width. Splay/corner radii are 9m. Some erven obtain access directly to/from Rossing Street, others have direct access to/from the cul-de-sac while others have the option of access to/from both Rossing Street and the cul-de-sac.

2.5 Access and Services

The site is bounded by Henties Bay Road and the Water Pipeline and has a prominent and visual position. As Henties Bay and By Pass Roads are no-access roads, primary access to the site will only be from Tsavorite Road an internal street between the identified site and Matutura (which is still barren but envisioned for future developments).

The site will be connected to all Municipal services. There are no Municipal services that need to be relocated or that prohibit/restrict the subdivision, as the development is taking place according to the Swakopmund Structure Plan 2020 - 2040.

2.6 Development

Swakopmund Municipality is working on developing the Northern area for residential and industrial purposes - warehouse-type industrial and semi-industrial activities. There is a growing demand in Swakopmund for modern, good quality and well-designed houses and related infrastructure.

Each new portion will be developed for residential purposes and will operate separately and independently from each other. Each new portion will be surrounded by walls/fences that will define their indicative boundaries. Each new portion will be developed in accordance with the Swakopmund Town Planning Scheme requirements such as coverage, height, bulk, building lines and on-site parking.

The current residential demand in Swakopmund is for freehold title of smaller more manageable and more affordable properties. Therefore, developing/redeveloping existing properties with existing available and useable infrastructure is much more affordable and sustainable.

Increasing the intensity of development within the existing urban areas will effectively utilise existing services and improve the urban area of the Swakopmund residential estate. In addition, it helps reduce urban sprawl and encourages more compact development.

The proposed subdivision is regarded as being ideally suited for this area and would not have a negative impact on the urban and environmental structure of this area. The application is also fully in accordance with the Swakopmund Town Planning Scheme and other Swakopmund Council policy and guidance.

The proposed new buildings will marginally increase the load on services, but there is sufficient capacity in the area and the impact will be much less significant than extending the town boundaries.

The development/redevelopment will spark interest and make local residents optimistic about their town. It will help revitalise the area and increase property values in the surrounding environs. It will also be complementary to the fast expanding Matutura and

NHE developments, as well as Vineta, Mile 4, Platz Am Meer Shopping Centre and the Salt Company which are all some 2 to 3 km away from the site.

Therefore, the subdivision is sought after in order to allow the applicant to proceed with his development proposals.

There is sufficient bulk services closer to the site in terms of water, sewerage, electricity and communication cables.

The proposed activity may affect the following geophysical aspects:

- a) **Negative:** Dust particles will be created during the construction phase.
- b) **Positive:** These particles of dust can be blown away by the wind reducing the chances of people inhaling it;
- c) **Negative:** The physical size of the site restricts development potential in terms of density;
- d) **Positive:** The proposed development will help curtail illegal activities taking place on the site – prostitution, illegal parking by truck drivers, drug and alcohol abuse

2.7 Biological Aspects

Although all towns are highly artificial, they soon come to function as unique environments and dynamic systems. They import resources from the surrounding hinterland, and export others, with effects that extend well beyond the municipal boundaries. Settlements leach resources - water, energy and raw materials - from the hinterland, while pumping noxious wastes and pollutants back into the countryside, out of sight of urban residents. When the town happens to be one like Swakopmund, constructed in a fragile eco-system with few resources conducive to human habitation, the ecological footprint of the town is proportionately greater.

This environment has transformed from the natural environment to a human habitat now, which has caused a total wipe out of the natural habitat. Street paving, gardening, level ground, and buildings have covered up the natural environment, leaving no endangered species, few plants, and animals. Due to the existing character of the area, the proposed development will not cause any negative biological or environmental impact.

The proposed activity may affect the following biological aspects:

- **Negative:** None observed.
- **Positive:** No impacts will be generated by this rezoning and eventual development because development will take place in an existing urban environment.
- **Positive:** The development is not located to any biologically sensitive areas “Biodiversity Area and Zoning” of Swakopmund (Swakopmund Structure Plan 2020 - 2040).
- **Positive:** When new buildings go up, inert desert sand has to be transported to sites to replace the salty, waterlogged soil in the town

2.8 Social Aspects

The site is zoned residential in terms of the Swakopmund Town Planning Scheme which permits a wide range of industrial and related activities. Following subdivision, the site will

be developed with warehouses and/or service industries and/or a service station and which are a primary right on an Industrial zoned erf.

The site is located between the residential areas of Vineta, Matutura, Mile 4 and the DRC, and its parallel to the Henties Boy Road and the Water Pipeline. The area is being illegally used by truckdrivers, prostitution, illegal dumping, etc.

During the day, noise levels are high because of the movement levels; and during the night, it is calmer in the neighborhood. The proposed Public Street Construction and related infrastructure will add to the existing anticipated vibrant nature of the area and corridor which may increase noise levels from the site.

The proposed activity may affect the following social aspects:

- **Negative:** construction activities can be eyesore to the nearby residents (though some 2 km away) and pedestrians who use the area as a “corridor”.
- **Negative (aesthetic):** the neighborhood will be changed as the site had been “vacant” for some time now.
- **Negative:** truck drivers will feel displaced as they use the site for illegal parking and engage in illicit sexual activities and drug abuses (they will feel their privacy as being invaded)
- **Neutral:** the proposed development will set the example for future properties; cumulative impact on the social environment can either be positive or negative.
- **Positive:** the development will increase value of the properties in the area, making people take more pride in their community
- **Positive:** A mixed-use development reduces the need to travel between living and working space, improving quality of life.

2.9 Cultural Aspects

There are no historical or heritage sites in the vicinity or within the 10km radius. virtually all buildings have no architectural significance or any importance to the local community.

The proposed activity may affect the following economic aspects:

- **Negative:** The development will have a negative aesthetic view on the whole area.
- **Positive:** No objections were received from the public; therefore the proposed activity is in accordance with the community’s values, norms, and cultural principles.

3. DESCRIPTION OF THE RECEIVING ENVIRONMENT

The Chapter provides an overview of the baseline studies on the biophysical and social environmental conditions, with which the proposed project will interact. This information has been sourced from observations made during a site visit and existing literature from previous research conducted in the area. This chapter also identifies sensitivities pertaining to key environmental features as well as potential impacts resulting from the proposed project in relation to these sensitivities.

3.1 Biophysical Environment

3.1.1 Climate

Swakopmund is located on the Namibian coastline in the arid Namib Desert. The arid conditions are as a result of dry descending air and upwelling of the cold Benguela Current. Thick fog or low stratus clouds are a regular occurrence in Swakopmund. This is due to the influence of the Benguela Current and forms the major source of water for the succulent and lichen flora in the Namib Desert.

Winds generated from the high-pressure cell over the Atlantic Ocean blow from a southerly direction when they reach the Namibian coastline. As the Namibian interior is warm (particularly in summer), localised low-pressure systems are created which draws the cold southerly winds towards the inland desert areas. These winds manifest themselves in the form of strong prevailing south-westerly winds, which range from an average of 20 knots (37 km/h) during winter months to as high as 60 knots (110 km/h) during the summer.

Winds near Swakopmund display two main trends; high velocity and frequency south to south-westerly winds in summer and high velocity, low frequency east to north-easterly winds during winter. During winter, the east winds generated over the hot Namib Desert have a strong effect on temperature, resulting in temperature in the upper 30 degrees Celsius and tend to transport plenty of sand.

Table 3.1 presents a summary of climate conditions / data in the Swakopmund area.

ELEMENT OF CLIMATE	DESCRIPTION
• Average annual rainfall (mm/a)	0-50
• Variation in annual rainfall (%)	< 100
• Average annual evaporation (mm/a)	2400 - 2600
• Water deficit (mm/a)	1701 - 1900
• Temperature	Average maximum: Between 24 °C in March/April and 19.3 °C in September Average minimum: Between 16.5 °C in February and 9.1°C in August Average annual >16 °C
• Fog	Approximately 900 hours of fog per year
• Wind	Prevailing wind is average to strong south westerly

Climate Change and Sea Level Rise - Since 1960 the global average sea level rise is 1.8 mm per year while the average sea level rise for Swakopmund is approximately 2 mm per year (Consulting Services Africa et al. 2009). Since most of Swakopmund is at 2 m above sea-level or less, this may have significant impacts on the town and port. Although future predictions on climate change and sea level increases are based on many variables, it is clear that in future the frequency of climate extremes will increase.

The present day worst case scenario is that an extreme sea level of +1.5 m above land levelling datum (LLD) (LLD is approximately equal to mean sea level) will occur every 100 years. By 2030, this is predicted to occur once every year mostly due to an increased frequency of storm events associated with climate change. The major impacts associated with this will be increased erosion of the shore line as well as inundation of low lying areas.

3.1.2 Topography and Vegetation

"Halfway up the barren Namibian coast, where the icy Benguela current rushes up from the Antarctic and the giant golden sand dunes of the Namib Desert reach down to the sea, lies the port of Swakopmund." (Berat, 1990) Lynn Berat's poetic description reflects the unique nature of the Swakopmund landscape. Constituted by the ephemeral Swakop River; the Namib sand sea south of the river and the gravel plains to the north; beaches and Atlantic coastline; these rich environments exist in dynamic relationships to one another, "the result of river, marine, wind and man-induced processes" (Lagoon Plan, 1998).

Here sand rests at about 32 -34% above the horizontal. This is where life on the dune is concentrated. Animals and plants of the desert have devised unique adaptive strategies, surviving with little rain - less than 15mm per annum - and deriving maximum benefit from the high humidity generated by fog sweeping off the coast. Seeds can lie dormant for years, animals can aestivate by seeking shelter in the summer months. Smaller animals like lizards and beetles can retreat on a daily basis below the sand. Larger animals can migrate or seek shade. Most rely on fog and wind-blown detritus as a source of food. *Trianthema hereroensis* is the common succulent found on the sand between Swakopmund and Walvis Bay. The plant absorbs fog water through its leaves. These plants grow on the dune sea south of the Kuiseb River only as far inland as the fog regularly penetrates. It is an important source of food and shelter for many dune animals. Its seeds are eaten by beetles, and when green, oryx and gerbils forage on the leaves.

The ability of the desert to sustain this rich bio-diversity should not distract from the fundamental fragility of this environment. The desert is easily disturbed. Ecologically it is a low energy system because of the lack of water. Perennial plants grow slowly while annual ones can only grow in the years with adequate rain. As a result it requires a longer period of time for the vegetation of the area to recover from disturbance than if the rainfall was higher.

North of the ephemeral Swakop River are gravel plains, clearly distinguishable from the desert sands in satellite photographs of the area. This area is flatter and presents a harder surface than the constantly shifting dunes to the south. These plains are characterised by sandy soils often associated with crystalline gypsum or salt deposits. These soils have a surface capping scattered with many cobbles and pebbles.

This delicate crust supports the small shrub *Arthroa leubnitzia*, endemic to the Namib. The plant germinates with the occasional rain and is then supported by fog. There is also a

diversity of fog-dependent lichens. If this crust is disturbed it may never recover, providing instead another place for erosion to begin when the rain eventually falls. In this area where the lichen crusts often constitute the dominant plant growth, any vehicle tracks seemingly last forever. Gray's lark (*Ammomanes grayi*), is endemic to the gravel plains.

3.2 Social Environment

The section aims to identify trends that are related to the importance of the assessment and determine potential impacts and/or implications of each that are relative to the project. It is important that the key-socio-economic trends in Swakopmund are understood as a basis for the assessment as they are of major importance.

3.2.1 Key Population statistics

The Erongo Region and Swakopmund specifically, is one of the fastest growing regions in terms of population size in Namibia. The population growth rate of Swakopmund for the period 2001 to 2011 is 4.7% while that of the Erongo Region is 3.4% and that of Namibia 1.4%. In Swakopmund, this growth can firstly be attributed to in-migration of job-seekers (42.63%) and secondly to in-migration by people who obtained jobs in Swakopmund prior to moving. This goes hand in hand with a decline in rural populations of the Erongo Region.

During the last census of 2011, unemployment in Swakopmund was 27% which is significantly lower than the Namibian level of 37%. The average annual household income in the Erongo Region during the 2009/2010 Namibian Household Income and Expenditure Survey was N\$ 84,989 which is second to only the Khomas Region with N\$ 132,209 (Namibia Statistics Agency, 2012). The main source of income in the Erongo Region is from salaries and wages with about 80% of households relying on this type of income (Namibia Statistics Agency, 2012).

3.3 Geophysical Aspects

The desert climate is warm and dry, but this is influenced by the cold water upwelling of the Benguela Current of the Atlantic Ocean, which, in contact with the warm desert air, produces water vapor (fog) that moderates the air temperature. The area experiences south-westerly winds throughout the year and strong north-easterly winds during winter months (June – August). The north-easterly winds sweeps over the Namib Desert which brings sandstorms and dust to the coastal region.

Soil conditions consist of compressed barren holomorphic soils, rich in salt content which are common in Swakopmund and other coastal towns like Walvis Bay and Henties Bay. Various anthropogenic material and particulates such as ceramics, plastics, and heavy metals can be found on site.

Due to urbanization and development, the site has been transformed into a human habitat and urban environment. The site and surrounding area contain man-made buildings, foundations, underground services and paved streets that have changed the geography of the natural environment.

The site is away from the ocean and 5m above sea level and is at the same height as adjacent erven and surrounding streets. Therefore no major earthworks are required for site development. The high water table is not fit for human consumption due to the ocean salinification. Instead, limited freshwater is pumped from the aquifers for human consumption and use.

“You cannot get through a single day without having an impact on the world around you. What you do makes a difference and you have to decide what kind of a difference you want to make.”

—Jane Goodall

4. PUBLIC CONSULTATION / PARTICIPATION

Public consultation is an important component of an Environmental Assessment (EA) as it provides potential Interested and Affected Parties (I&APs) with a platform whereby they can raise any issues or concerns relevant to the proposed project. This assists the environmental consultant in considering the full spectrum of potential impacts and to what extent further investigations are required.

In addition, the public consultation process also grants I&APs an opportunity to review and comment on all the documents produced throughout the EA process. This is done in accordance with both the Environmental Management Act’s EIA Regulations, as well as international best practice principles. This section details:

- The identified I&APs for the proposed project;
- The means of communicating with them; and
- A summary of the issues raised during the public consultation process.

A list of all issues and concerns that have been raised during the public consultation process is provided in the Issues and Responses Trail. Public consultation is an important component of an Environmental Assessment (EA) as it provides potential Interested and Affected Parties (I&APs) with a platform whereby they can raise any issues or concerns relevant to the proposed project. This assists the consultant in considering the full spectrum of potential impacts and to what extent further investigations are required.

4.1 Interested and Affected Parties

To ensure all I&APs were notified about the project, notices regarding the project were placed in widely circulated in national newspapers and the local municipal Notice Board, inviting members of the public to register as I&APs.

4.1.1 Issues raised

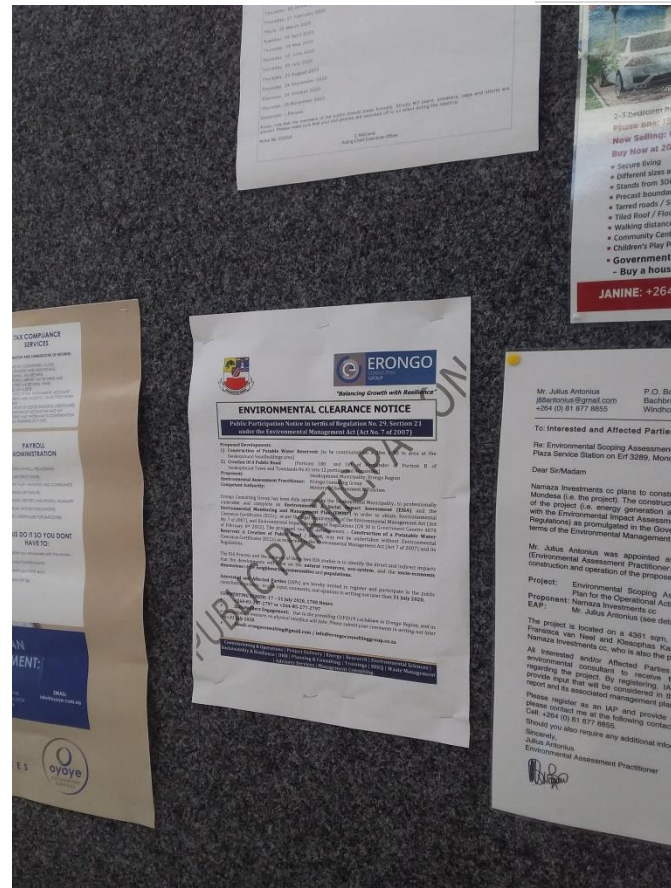
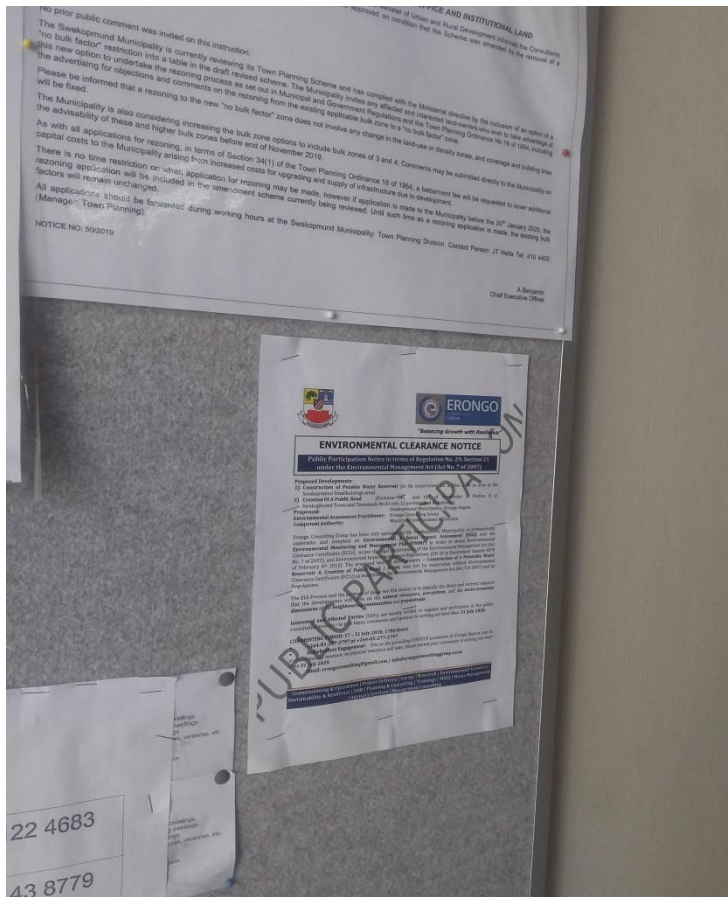
No issues/comments/objections to the application were raised by any potential Interested and Affected Parties.

4.1.2 Communication with IAPs

Section 21 of the EIA Regulations (RN: MET, 2012) details steps to be taken during a given public consultation process and these have been used in guiding this process. Communication with I&APs about this proposed development was facilitated through the following means:

- A Background Information Document (BID) was compiled that contained essential information about the proposed developments. The BID was sent to all registered I&APs;

- Notices were placed in the press, briefly explaining the development and its locality, inviting the public to register as I&APs; and
- An **Environmental Site Notice** of the proposed activity was up on the site from 15 July to 31 July 2020 when it was taken down by the EAP



Site Pictures 1: Environmental Clearance Notices – Notice Boards and Site

The main issues arising from the assessments and scoping have been summarized below. These issues have been recorded in an Issues and Responses Trail.

Theme	Issue Raised by IAPs
1. Economic	<ul style="list-style-type: none"> • Creation of jobs and local people being employed
2. Infrastructure	<ul style="list-style-type: none"> • Waste Management in the area • Type of infrastructure to be built in the area
3. Environmental	<ul style="list-style-type: none"> • Winds • Dust
4. Traffic	<ul style="list-style-type: none"> • Control and flow of traffic to the site • access to the site

Table 4.1: Likely Identified Issue

Table 4.2 List of Consulted Stakeholders

Name	Organisation	Contacts
Paulina Engelbrecht (Environmental Officer)	Swakopmund Municipality	+264 64 410 4438
Johanna Angolo	Swakopmund Municipality	+264 64 410 4433
Trophimus Haiduwa, GIS Coordinator	Swakopmund Municipality	+264 64 410 4433
Dinina Hamupembe Technician: Projects	Swakopmund Municipality	+264 64 410 4423
Chief Regional Officer	Erongo Regional Council	cro@erc.gov.na
Anet Kotting, Chairperson	Hospitality Association of Namibia	gm@zumkaiser.com
Glory Madzura	SAIPA Swakopmund	adfnam@gmail.com
Clara Matatari	Environmental Defence	0812402654



"Balancing Growth with Resilience"

ENVIRONMENTAL CLEARANCE NOTICE

Public Participation Notice in terms of Regulation No. 29, Section 21 under the Environmental Management Act (Act No. 7 of 2007)

Proposed Developments:

- 1) Construction of Potable Water Reservoir (to be constructed on a 30m x 30 m area at the Swakopmund Smallholdings area)
- 2) Creation Of A Public Road (Portions 180 and 181 of Remainder of Portion B of Swakopmund Town and Townlands No.41 into 12 portions and Remainder)

Proponent: Swakopmund Municipality, Erongo Region
Environmental Assessment Practitioner: Erongo Consulting Group
Competent Authority: Ministry of Environment & Tourism

Erongo Consulting Group has been duly appointed by the Swakopmund Municipality, to professionally undertake and complete an Environmental & Social Impact Assessment (ESIA) and the Environmental Monitoring and Management Plan (EMMP) in order to obtain Environmental Clearance Certificates (ECCs), as per the legal requirements of the Environmental Management Act (Act No. 7 of 2007), and Environmental Impact Assessment Regulations (GN 30 in Government Gazette 4878 of February 6th 2012). The proposed two (2) developments – Construction of a Potable Water Reservoir & Creation of Public Road / Street, may not be undertaken without Environmental Clearance Certificates (ECCs) as enshrined in the Environmental Management Act (Act 7 of 2007) and its Regulations.

The EIA Process and the purpose of these two EIA studies is to identify the direct and indirect impacts that the developments will have on the natural resources, eco-system, and the socio-economic dimensions of the neighbouring communities and populations.

Interested and Affected Parties (IAPs) are hereby invited to register and participate in the public consultation process - to give input, comments, and opinions in writing not later than 31 July 2020.

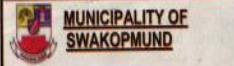
COMMENTING PERIOD: 17 - 31 July 2020, 1700 Hours

- +264-81-277-2797 or +264-85-277-2797
- Stakeholders Engagement: Due to the prevailing COVID19 Lockdown in Erongo Region, and as a precautionary measure, no physical interface will take. Please submit your comments in writing not later than 31 July 2020.
- Email: erongoconsulting@gmail.com / info@erongoconsultinggroup.co.za

Commissioning & Operations | Project Delivery | Energy | Research | Environmental Sciences | Sustainability & Resilience | DRR | Planning & Consulting | Trainings | SHEQ | Waste Management | Advisory Services | Management Consulting

Figure 4.1: Sample Poster used for Public Consultations

NOTICES



Municipality of Swakopmund

Notice is hereby given that the Swakopmund Municipality, intends to:

Permanently close Erven 378, 402, 403, 404 and 410, Swakopmund as "public open space", measuring 1000m, 961.82m, 296.87m and 3991m in extent, respectively, and subsequent rezoning of the aforesaid erven from "public open space" to "private open space".

Locality plan is available and open for inspection during working hours at the Swakopmund Municipality, Town Planning Division.

Contact Person: JT Heita Tel: 410 4403 (Manager: Town Planning).

Any person having any objections to the proposed zoning may lodge such objections, duly motivated in writing, with the Chief Executive Officer on or before 27th August 2020.

Benjamin Chief Executive Officer

LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998

No 18 Tobias Haiyeko Street, Swakopmund. 4. Nature and details of application: Application for Permanent Re-removal of a Special Liquor Licence FROM: Erf No 260, No 13 Tobias Haiyeko Street, Swakopmund TO: Erf 948/257, Shop 46-48, Ankerplatz, Sam Nujoma Avenue Swakopmund.

ESTATE NOTICE In the Estate of the late Helmut Rohloff who died on 26 April 2019, and was residing at: 51 Daniel Tjongarero Avenue, Swakopmund.

Notice is hereby given that the First and Final Liquidation and Distribution Accounts are lying for inspection at the offices of the Master of the High Court at Windhoek and the Magistrate's Office at Swakopmund for a period of 21 (twenty one) days from date of publication hereof for all interested parties.

LEGAL PRACTITIONERS Stadtmite 2nd Floor Sam Nujoma Avenue P.O. Box 2148 Swakopmund (Ref: MAT/17535 - ml/am)

ELLIS SHILENGUWA INC Peter Frederik Hamman

LEGAL PRACTITIONERS Stadtmite 2nd Floor Sam Nujoma Avenue P.O. Box 2148 Swakopmund (Ref: MAT/17535 - ml/am)

ERONGO "Balancing Growth with Resilience" ENVIRONMENTAL CLEARANCE NOTICE Public Participation Notice in terms of Regulation No. 24, Section 21, under the Environmental Management Act (Act No. 7 of 2007).

IN THE HIGH COURT OF NAMIBIA NORTHERN LOCAL DIVISION. In the matter between: CASE NO. HC-NLD-CIVACT-CON 201800818

NOTICE TO ALL INTERESTED PERSONS IN THE FOLLOWING DISTRICT ESTATE. In terms of section 35(5) of the Act of 1995 notice is hereby given that the First and Final Liquidation and Distribution Accounts will be available for inspection in the office of the Master of High Court - Windhoek for 21 days from date of publication of this notice and also in the town where the deceased resided.

ANGURIA ATTORNEYS Legal Practitioners for Plaintiff. In the matter between: ANGURIA ATTORNEYS (PLAINTIFF) v. ERONGO (DEFENDANT)

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LICENSING ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998. Application for a Special Liquor Licence FROM: Erf No 260, No 13 Tobias Haiyeko Street, Swakopmund TO: Erf 948/257, Shop 46-48, Ankerplatz, Sam Nujoma Avenue Swakopmund.

ESTATE: Gert De Klerk. NOTICE IS HEREBY GIVEN THAT THE FIRST AND FINAL LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE ABOVE MENTIONED ESTATE WILL BE LYING FOR INSPECTION AT THE OFFICE OF THE MASTER OF THE HIGH COURT AND THE MAGISTRATE'S OFFICE REHOBOTH FOR A PERIOD OF TWENTY ONE DAYS FROM THE DATE OF PUBLICATION OF THIS NOTICE.

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LICENSING ACT, 1998. NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998. Application for a Special Liquor Licence FROM: Erf No 260, No 13 Tobias Haiyeko Street, Swakopmund TO: Erf 948/257, Shop 46-48, Ankerplatz, Sam Nujoma Avenue Swakopmund.

PUBLIC NOTICE PARTIAL ROAD CLOSURE NANGOLO MBUMBA DRIVE

IN THE EXECUTION OF A Judgment of the above Honourable Court, the following goods will be sold by Public Auction at ADVANCE REFERRIGATION, MAIN ROAD OSHAKATI, at 12:00 on the 23rd JULY 2020.

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LICENSING ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998. Application for a Special Liquor Licence FROM: Erf No 260, No 13 Tobias Haiyeko Street, Swakopmund TO: Erf 948/257, Shop 46-48, Ankerplatz, Sam Nujoma Avenue Swakopmund.

ERONGO "Balancing Growth with Resilience" ENVIRONMENTAL CLEARANCE NOTICE Public Participation Notice in terms of Regulation No. 24, Section 21, under the Environmental Management Act (Act No. 7 of 2007).

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LICENSING ACT, 1998. NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998. Application for a Special Liquor Licence FROM: Erf No 260, No 13 Tobias Haiyeko Street, Swakopmund TO: Erf 948/257, Shop 46-48, Ankerplatz, Sam Nujoma Avenue Swakopmund.

Figure 4.2: Newspaper Adverts: Namib Times 17 July 2020 & New Era 10 July 2020

The earth has a skin and that skin has diseases; one of its diseases is called man.

Friedrich Nietzsche

5. ALTERNATIVES

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1

The planning process of the proposed project involved the Swakopmund Municipality and the EAP. These planning process meetings and consultations were meant to determine the best site/s for the proposed development.

5.1 No-Go Alternative (Do Nothing Alternative)

Should the proposed development not take place, serious consequences can be expected, as there will be no access to the proposed development (residential), which will encompass various portions and semi-industrial activities. Therefore, it is necessary to subdivide the site into its component parts with a Public Street.

5.2 Site Alternative

Due to land availability and service connections, the proposed sites, Alternative 1, are the only sites that have been identified for establishing the Public Street to connect the separate service industry, warehouse-type industrial and semi-industrial activities. Therefore, no alternative sites have been identified or considered during this study.

5.3 Technology Alternative 1:

Due to the type of project, no alternative technology can be considered.

5.4 Selection Process

Consultation meetings have been held with the Local Municipality and relevant role-players to determine the most suitable area available for the establishment of the Public Street.

6. IMPACT ASSESSMENT

6.1 Methodology

The EIA Regulations require “a description of the significance of any significant effects, including cumulative effects, which may occur as a result of the undertaking of the activity”. In order to determine significance each of the potential impacts identified, the following steps formed the methodology for assessing the significance of the effects or impacts identified through this EA process:

- The first step is to screen out (set aside) all impacts which do not fall within the scope of this project and responsibility of the developer;
- The next step is to determine whether sufficient information exists to assess the potential impacts of those that remain. If insufficient information is available to assess (with a high degree of confidence) and recommend mitigation measures to address a given impact further investigation will be required. However, if sufficient information is available to assess (with a high degree of confidence) and recommend mitigation measures to address a given impact no further investigation will be required and the impact will be addressed in the EMP;
- To fully understand the significance of each of the potential impacts, it is necessary to subject each to a range of assessment criteria. The application of these criteria, in determining the significance of potential impacts, uses a balanced combination of duration, extent, and intensity/magnitude, modified by probability, cumulative effects, and confidence. The definitions of each of the criteria are contained below; and

Finally based on the answers obtained after applying steps 1-3 a decision can be made regarding the significance of the impact based on three categories – low, medium or high.

Table 6.1 Screening and Assessment of Impacts

IMPACT ASSESSMENT CRITERIA	
NATURE	Reviews the type of effect that the proposed activity will have on the relevant component of the environment and includes “what will be affected and how?”
EXTENT	Geographic area. Indicates whether the impact will be within a limited area: <ul style="list-style-type: none"> • Immediate area (on site where construction is to take place); • local (limited to within 25km of the area); • regional (limited to ~200km radius); • national (limited to the coastline of Namibia); or • International (extending beyond Namibia’s borders).
DURATION	Whether the impact will be: <ul style="list-style-type: none"> • temporary (during construction only), • short term (1-5 years), medium term (5-10 years), • long term (longer than 10 years but will cease after operation) or permanent.
INTENSITY	Establishes whether the magnitude of the impact is destructive or innocuous and whether or not it exceeds set standards, and is described as: <ul style="list-style-type: none"> • none (no impact); • low (where natural/ social environmental functions and processes are negligibly affected);

	<ul style="list-style-type: none"> • medium (where the environment continues to function but in a noticeably modified manner); or • high (where environmental functions and processes are altered such that they temporarily or permanently cease and/or exceed legal standards/requirements).
PROBABILITY	<p>Considers the likelihood of the impact occurring and is described as:</p> <ul style="list-style-type: none"> • uncertain, • improbable (low likelihood), • probable (distinct possibility), • highly probable (most likely) or • Definite (impact will occur regardless of prevention measures).
SIGNIFICANCE	<p>Significance is given before and after mitigation.</p> <ul style="list-style-type: none"> • <i>Low</i> if the impact will not have an influence on the decision or require to be significantly accommodated in the project design, • <i>Medium</i> if the impact could have an influence on the environment which will require modification of the project design or alternative mitigation (the project components can be used, but with deviations or mitigation). • <i>High</i> where it could have a “no-go” implication regardless of any possible mitigation (an alternative should be used).
STATUS OF THE IMPACT	<p>A statement of whether the impact is:</p> <ul style="list-style-type: none"> • positive (a benefit), • negative (a cost), or • Neutral. <p>Indicate in each case who is likely to benefit and who is likely to bear the costs of each impact.</p>
DEGREE OF CONFIDENCE IN PREDICTIONS	Is based on the availability of specialist knowledge and other information.

Table 6.2: Definitions of the Various Significance Ratings

SIGNIFICANCE RATING	CRITERIA
LOW	Where the impact will have a negligible influence on the environment and no modifications or mitigations are necessary for the given development description. This would be allocated to impacts of any intensity/ magnitude, if at a local scale/ extent and of temporary duration/time.
MEDIUM	Where the impact could have an influence on the environment, which will require modification of the development design and/or alternative mitigation. This would be allocated to impacts of medium intensity/magnitude, locally to regionally, and in the short term.
HIGH :	Where the impact could have a significant influence on the environment and, in the event of a negative impact the activity(ies) causing it, should not be permitted (i.e. there could be a ‘no-go’ implication for the development, regardless of any possible mitigation). This would be allocated to impacts of high intensity, locally for longer than a month, and/or of high intensity regionally and beyond.

All impacts included in the table below fall within the scope of this project and responsibility of the proponent. Each of the potential impacts is screened and subjected to the criteria stipulated above. The significance of each potential impact is determined based on the criteria.

Detailed descriptions of mitigation measures for impacts that require mitigation are contained in the EMP

POTENTIAL IMPACT	DESCRIPTION	EXTENT	DURATION	INTENSITY	PROBABILITY	CONFIDENCE/ SUFFICIENT INFORMATION AVAILABLE?	SIGNIFICANCE	SIGNIFICANT MITIGATION DEEMED POSSIBLE?	NEXT STEP
Aesthetic issues	The change in the existing landscape may be an eye sour to existing residents due to blockage of open views.	Immediate area	Temporary	Low	Improbable	Yes	Low	Yes	EMP
Employment creation	The Public Street construction activities associated with the project is due to create local employment opportunities.	Local	Temporary	Medium	Definite	Yes	Low	Yes	EMP
Noise (construction phase)	Construction activities can create noise for local nearby residents / businesses.	Local	Temporary	Low	Highly probable	Yes	Low	Yes	EMP
Dust (construction phase)	The ingress and egress of construction vehicles can create dust.	Local	Temporary	Low	Highly probable	Yes	Low	Yes	EMP
Traffic (Operational phase)	Increase in traffic in the area is expected due to	Local	Permanent	Medium	Definite	Yes	Low	Yes	EMP

	construction activities								
Effluent generation	NO EFFLUENT WILL BE GENERATED (SCOPED OUT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generation of waste	Public Street Construction will generate waste.	Local	Long-term	Medium	Definite	Yes	Medium	Yes	EMP
Impact on existing properties	The proposed development is believed to impact on exiting property values in the area.	Local	Long-term	Low	Probable	Yes	Low	Yes	EMP

Table 6.3: Detailed Screening and Assessment of impacts

The proposed mitigation will reduce the significance level to **LOW**.

Potential impacts associated with the proposed project have been identified and their significance determined. None of the potential impacts identified had a “high” impact significance. All identified impacts can be mitigated so as to reduce the significance of these impacts to an acceptable level. Mitigation measures are described in greater detail in the EMP. Hence, the project, as proposed in this report, can be implemented with no significant impacts if executed according to the EMP.

It is therefore recommended that **Environmental Clearance Certificate** be granted for the proposed development and associated infrastructure.

It can thus be concluded that the proposed development will not cause any social, economic and environmental damage to the local communities. Most of the potential impacts identified during the study are generic construction impacts that will be eliminated as soon as the development starts operating. There are some positive impacts the development will bring such as bringing aesthetic quality to the neighbourhood, which will ultimately increase nearby property values, also the development will create jobs, improve quality of life.

To waste, to destroy our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed.

— Theodore Roosevelt

7. ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE

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7.1 Assumptions:

- The scope is limited to assessing the potential impacts associated with the proposed Public Street Construction; therefore, the effect on the surrounding environment is based on the current land use.
- All information provided by Erongo Consulting is deemed valid and correct at the time it was provided.
- Since during the Commenting Period between 17 and 24 July 2020, archeologically and historically, no indigenous local knowledge came forth, it is assumed that there are no sensitive cultural sites like shrines, on the proposed site.
- Based on the layout, the biophysical, Geo-physical and social environments won't be affected by construction activities.

7.2 Assumptions from Specialists:

- The Outline Scheme Report is based on the bulk services information received from the Swakopmund Municipality.

7.3 Limitations/Gaps in Knowledge: None

The only way forward, if we are going to improve the quality of the environment, is to get everybody involved.

– Richard Rogers

8. EIA / SCOPING RECOMMENDATION

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The EIA / Scoping is of the opinion that the development should be authorized because the negative impacts can be mitigated to a satisfactory level. However, the following recommendations should be considered:

1. Loss of topsoil during construction should be avoided to a greater extent.
2. The municipality should consider planting of grasses and trees, to promote greening and to minimize soil exposure, which could result in accelerated soil erosion process.
3. Proper maintenance of roads and streets.
4. Proper management procedures and mitigation measures must be implemented as outlined in the EMP.
5. Environmental Officer should be appointed for monthly environmental compliance monitoring during the construction phase.
6. Recommendations from specialists should be considered and adhered to

9. ENVIRONMENTAL MANAGEMENT PLAN STATEMENT

It should be recognized that no development could be completed without impacting in some way on the environment; therefore, it is imperative that negative impacts are minimized to a greater extent.

During the scoping phase of the EIA process, the environmental issues that were identified were for both the construction and operation phase.

The identified impacts are summarized below:

1. Loss of topsoil;
2. Potential habitat of the infrastructure on the socio-economic structure of the area.
3. Job creation looking at employment of local community;
4. Excessive noise generation during construction;
5. Potential damage or destruction to undiscovered heritage sites of the area;
6. Traffic congestion during construction;
7. Potential impact of sensitive habitat destruction; and
8. Potential impact of destruction on red data plants.

From the evaluation identified impacts using the assessment methodology, the significance ratings of negative impacts were reduced to low with outlined mitigation measures and the positive impacts were accentuated. The extent with mitigation ranged between site specific and local. Adherence to the Draft EMP will also ensure that impacts occurring due to the development will be reduced to a greater extent.

In terms of the findings, the Swakopmund Municipality has the ability to accommodate the proposed site.

Other studies that were undertaken as part of the EIA process included a heritage impact assessment to inspect the site for any possible archaeological and historical material and Paleontological Investigation to determine the likelihood of fossil preservation in the area. The site has no paleontological and archaeological grounds to suspend the proposed development, therefore no mitigation measures are required but mitigation is provided in the EMP in case there is unearthing of fossils, grave sites, etc. during earthmoving activities.

The proposed site is suitable for a residential development because it is compatible with the surrounding area, easily accessible and availability of connection points to services, e.g. water, electricity.

During the Commenting Period, no objections were received. A no-go option for this project is not feasible because the site has been earmarked for Public Street Construction development and it is strategically positioned therefore connections to basic amenities like water and sewerage are economically feasible.

It is therefore recommended that Environmental Clearance Certificate be granted for the proposed Public Street Construction. Page | 5

The Environmental Management Plan (EMP) identifies possible impacts of the project on the environment and the mitigation thereof. It gives guidelines to the responsible person(s) to follow appropriate contingency plans in the case of various possible impacts, thus the copy of the EMP should be given to the contractor to ensure adherence. The Draft EMP is attached hereto and should it be approved, it will serve as the final EMP.

Sooner or later, we will have to recognise that the Earth has rights, too, to live without pollution. What mankind must know is that human beings cannot live without Mother Earth, but the planet can live without humans.

– Evo Morales

10. CONCLUSION

The proposed Public Street Construction will take place within an area covered by a Town Planning Scheme. The scheme regulates the impact of the development together with the regulations of the Environmental Management Act (7 of 2007).

The development wholly falls under the Swakopmund Municipality and intends to develop the site for residential purposes (12 portions).

Each separate activity wishes to own their site via freehold title. Therefore, it is necessary to subdivide the site into its component parts.

The Public Street will not have high significance on the natural environment because similar rezoning close to the suburban business centers have already taken place.

The proposed development will have a minimal ecological footprint as it on brownfield land compared to developments in rural/natural ecosystem areas.

Potential impacts associated with the proposed project have been identified and their significance determined. None of the potential impacts identified had a “**high**” impact significance. All identified impacts can be mitigated so as to reduce the significance of these impacts to an acceptable level. Mitigation measures are described in greater detail in the EMP. Hence, the project, as proposed in this report, can be implemented with no significant impacts if executed according to the EMP.

It is therefore recommended that **Environmental Clearance Certificate** be granted for the proposed development as it's of national benefit.

If all mankind were to disappear, the world would regenerate back to the rich state of equilibrium that existed ten thousand years ago. If insects were to vanish, the environment would collapse into chaos.
E. O. Wilson

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