"Balancing Growth with Resilience"

ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT REPORT

Construction Of The Swakopmund Smallholdings Potable Water Reservoir On Remainder Of Portion 79 Of The Swakopmund Town & Townlands 41, Erongo

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'Here is your country. Cherish these natural wonders, cherish the natural resources, cherish the history and romance as a sacred heritage, for your children and your children's children. Do not let selfish men or greedy interests skin your country of its beauty, its riches or its romance.—
Theodore Roosevelt

"Balancing Growth with Resilience"

Document Status

PROPONENT	Swakopmund Municipality, Erongo Region, NAMIBIA
PROJECT TITLE	Construction Of The Swakopmund Smallholdings Potable Water Reservoir On Remainder Of Portion 79 Of The Swakopmund Town & Townlands 41, Erongo
PROJECT TYPE	Environmental Impact Assessment Study
PROJECT LOCATION	Portion 79 of the Remainder of the Swakopmund Town & Townlands 41
LOCAL AUTHORITY	Swakopmund Municipality, Erongo Region, NAMIBIA
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
PROJECT EAP / REVIEWER	Contact person: Mrs. Paulina Nyalota (Project Assistant) Erongo Consulting Group P.O. Box 7118, Swakopmund, Namibia Cell: 085.277.2797 / 081.277.2797 Email: erongoconsulting@gmail.com
CONTRIBUTORS / FIELD STAFF	Immanuel M. Hamadziripi, PhD Scholar / Student

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As I walk with Beauty
As I walk, as I walk,

The universe is walking with me,
In beauty it walks before me,
In beauty it walks behind me,
In beauty it walks below me,
In beauty it walks above me,
Beauty is on every side.

—Traditional Navajo Prayer

EXECUTIVE SUMMARY

Introduction

The population in the town of Swakopmund has increased rapidly during the past years due to the influx of people seeking employment and other socio-economic benefits in the mining and tourism industries. As a result, a solution to meet the significant increase in water demand has been proposed.

A proposed solution, which consists of constructing a Potable Water Reservoir, has been initiated by the Swakopmund Municipality, on a 30m x 30m area in the Swakop Smallholding plots, some 10km on the eastern part of the town towards the City of Windhoek.

As part of the project, an Environmental Impact Assessment needs to be performed, with the objective of ensuring that any interventions and ongoing operations of the project would not cause any long term negative consequences to the environment and the community within which the project is proposed.

The methodology used to complete the environmental impact assessment includes field visits and data collection from different sources (e.g. local authorities, desk research, tests conducted, field work, etc.) followed by analysis of the collected information. Based on the data analysis, mitigation measures and recommendations are presented.

As a first step, the project surroundings are presented. The site is located on the Swakop River Plots or Smallholdings area. During the month of January, February and March Swakopmund experiences good weather with pleasant average temperatures that fall between 20 degrees Celsius (68°F) and 25 degrees Celsius (77°F).The town has dry periods in January, February, March, April, May, June, July, August, September, October, November and December. The warmest month is February with an average maximum temperature of 21°C (69°F). The coldest month is August with an average maximum temperature of 16°C (60°F).

Swakopmund Smallholdings area consists of a desert plain with a flat plateau. Land use around the proposed Potable Water Reservoir purely arid and barren with no vegetation like of shrubs and plants.

The project will consist of the following main elements:

1) Supply and installation of a prefabricated water treatment plant including all fittings and accessories:
2) Rehabilitation of old pump room including all fittings and accessories
3) Construction of a concrete storage tank (30m x 30m)
4) Connection of the potable water reservoir to the already existing water supply and distribution network

The impacts of the project are mostly negative during the construction phase. However, these negative impacts are only temporary and are greatly outweighed by the positive impacts during operation. For construction, negative impacts result from vehicles and machinery operation, temporary facilities on site, laborers' behaviors, etc. Mitigation measures are presented to avoid or at least minimize all potential negative impacts.

As for the positive impacts during operation, they mainly consist of an increase of water supply and improvement of water quality. However, special care needs to be taken during water extraction in order for the project to be sustainable which requires meticulous monitoring. Water quality is also of paramount importance which is why chlorination dosages need to be carefully checked by experts. Finally, the frequency of reporting for each mitigation measure, the person responsible and the monitoring indicators are all identified.

This assessment discusses these issues in more detail and outlines mitigation measures to be employed in order not only to minimize the risk to the environment as a result of these interventions, but also to improve water quality and quantity. Finally the environmental management plan will help summarize how this project can incorporate the findings and monitor them over the life of the project.

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.

We have forgotten how to be good guests, how to walk lightly on the earth as its other creatures do."
—Barbara Ward

1. PROJECT DESCRIPTION

The population in the town of Swakopmund has increased rapidly during the past years due to rapid rural-urban migration. As a result, a solution to meet the significant increase in water demand has been proposed.

Swakopmund is Erongo Region's administrative Capital. Swakopmund is a coastal city in Namibia, west of the capital, Windhoek, and has about 50,000 inhabitants (NSA, 2018).

Figure 1 below shows the project site location. The Coordinates are as follows:

- **Easting (Y):** 467 752
- **Northing (X):** 7 499 542

The project consists of increasing the water supply by:

- Supply and installation up of prefabricated water treatment units
- Supply and installation of 3 horizontal booster pumps
- Construction a concrete storage tank measuring 30m x 30m

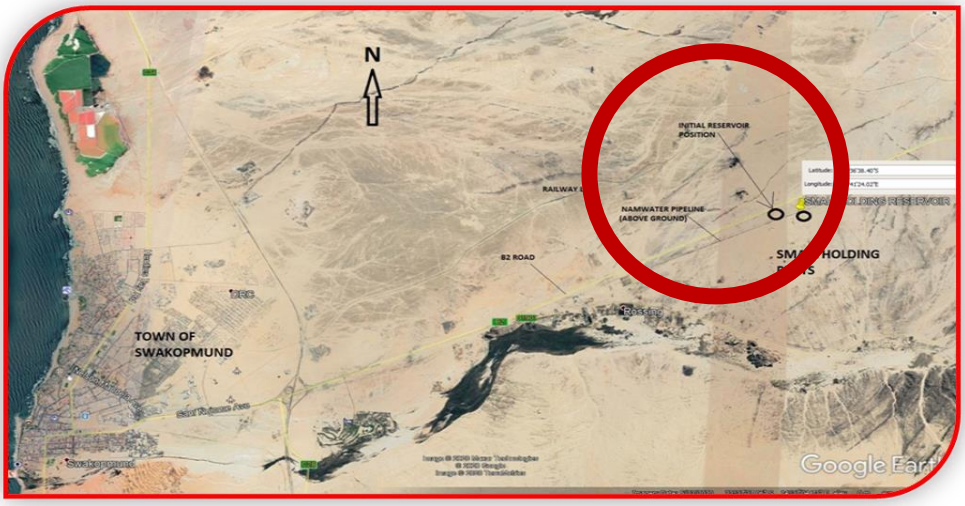


Figure 1*: Google Map depicting the location of the Proposed Potable Water Reservoir for Swakopmund Municipality*

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

Leonardo DiCaprio

2. METHODOLOGY

The methodology used to complete the Environmental Impact Assessment includes field and data collection followed by analysis of the collected information. Based on the data analysis, mitigation measures and recommendations are presented.

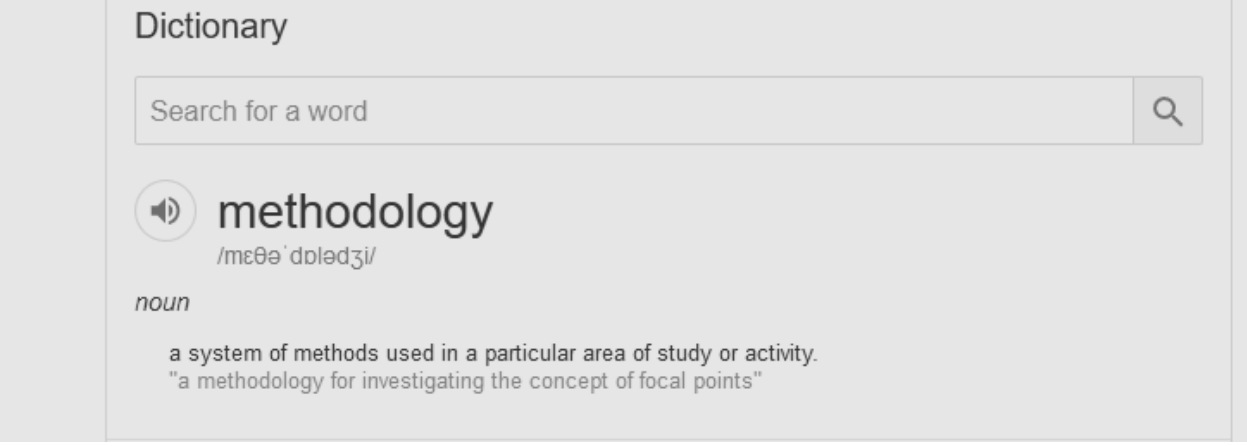
Several sources were used to complete the data collection required for this project. General information, including technical data, was gathered through meeting key personnel from the concerned local authority – Swakopmund, Erongo Regional Council and Civil Engineers – IngPlan in Windhoek.

In addition to meeting key personnel from the local authorities, further data was collected through observatory field visits to consolidate the understanding of the environmental setting. A visit to the water treatment plant and the surrounding region was conducted to inspect the physical setting. Moreover, social impacts were assessed through public discourse and interaction during the conducted site visits.

Furthermore, different types of tests were carried out to assess the quality of drinking water such as biological, physical and chemical tests. The parameters tested include turbidity and pH among others.

Desk review was also used as a source of information that could support the impact assessment study especially regarding some of the project's surroundings' description including topography, climate, etc.

Based on all the above activities, the main concerns were highlighted and analyzed as shown in the Environmental Impact Assessment Report.



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

3. LEGAL FRAMEWORK CONSULTED

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(l)).	Ecological sustainability should inform and guide this EA and the proposed development.
Environmental Management Act EMA (No 7 of 2007)	▪ Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). ▪ Details principles which are to guide all EAs.	The EMA and its regulations should inform and guide this EA process.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	▪ 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	▪ Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22 (1)). ▪ Prohibits the removal of and transport of various protected plant species.	Even though the Directorate of Forestry has no jurisdiction within townlands, these provisions will be used as a guideline for conservation of vegetation.
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	Section 48(1) states that "A person may	Any heritage resources (e.g. human

LEGISLATION/ GUIDELINE	RELEVANT PROVISIONS	IMPLICATIONS FOR THIS PROJECT
2004	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".	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: ▪ 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 0f 1972)	▪ 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 the TPS.
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.	Implementing energy-efficiency and carbon mitigation measures. Conserve natural resources with city planning.

What's the use of a fine house if you haven't got a tolerable planet to put it on."

—Henry David Thoreau

4. DESCRIPTION OF PROJECT SURROUNDINGS

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.

4.1 Biophysical Environment

4.1.1 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 4.1 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.

4.1.2 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" (Kruger 2016).

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 Arthraerua leubnitzea, 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.

4.2 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.

4.2.1 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).

4.3 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

"Way, away, from men and towns,
To the wild wood and the downs, —
To the silent wilderness,
Where the soul need not repress its music."
—Percy Bysshe Shelley

5. 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.

A list of all issues and concerns that have been identified 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.

5.1 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.

Table 5.1 List of Consulted Stakeholders

Name	Organisation	Contacts
Paulina Engelbrecht - Environmental Officer	Swakopmund Municipality	+264 64 410 4438
Johanna Angolo, Town Planner	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 Defense	0812402654
Geoffrey Kapembe	Stakeholder	adfnam@gmail.com
Josephine Twatuka	Stakeholder	0852401261

5.1.1 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
- **Environmental Site Notice** of the proposed activity was up on the site from 1 to 31 July 2020, when it was taken down by the EAP (see Pictures 1 – 3 below).

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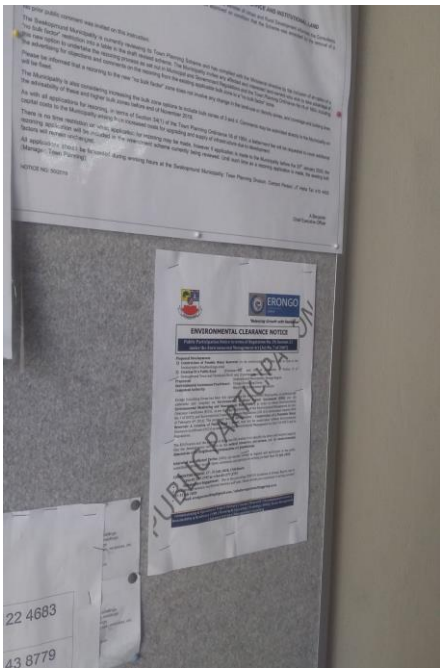
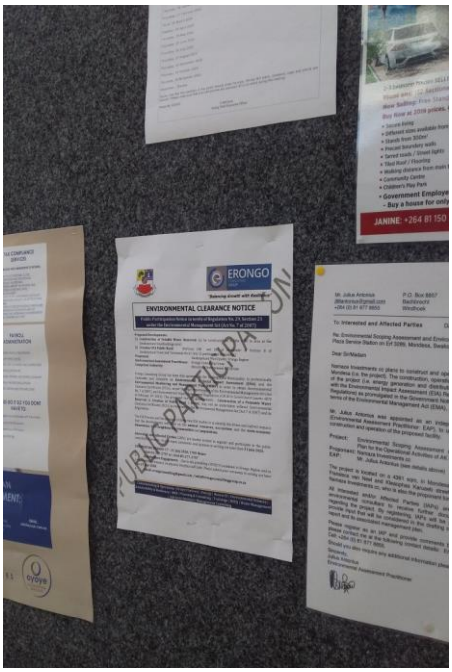
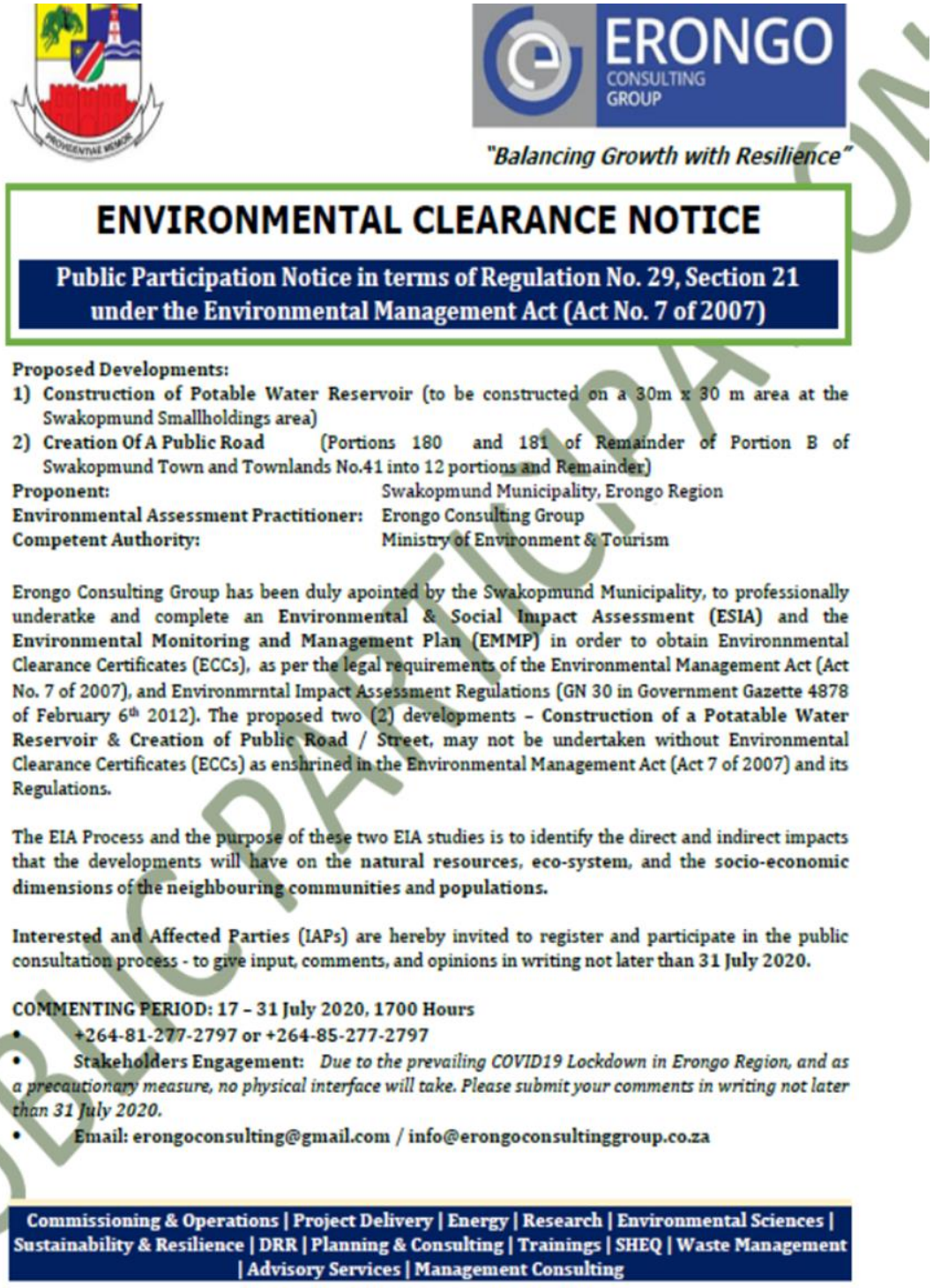
Pictures 1 – 2: Environmental Clearance Notices - Notice Boards across Swakopmund





Picture 3: Site Notice



ERONGO CONSULTING GROUP

"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 apointed by the Swakopmund Municipality, to professionally underatke and complete an **Environmental & Social Impact Assessment (ESIA)** and the **Environmental Monitoring and Management Plan (EMMP)** in order to obtain Environnmental Clearance Certificates (ECCs), as per the legal requirements of the Environmental Management Act (Act No. 7 of 2007), and Environmrntal Impact Assessment Regulations (GN 30 in Government Gazette 4878 of February 6th 2012). The proposed two (2) developments – **Construction of a Potatable 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

Picture 4: Generic Poster used for Notice Boards, On Site, Facebook, WhatsApp etc.

4 NAMIB TIMES 17 JULY 2020

NOTICES NOTICES NOTICES

MUNICIPALITY OF SWAKOPMUND

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

- Permanently close Erven 379, 402, 403, 404 and 410, Swakopmund as "public open space", measuring 1000m², 961.82m², 296.87 and 3991m² 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 steps may lodge such objections, duly motivated in writing, with the Chief Executive Officer on or before 7th August 2020.

Notice No: 32/2020

A Benjamin
Chief Executive Officer

LIQUOR ACT, 1998

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

(Regulations 14, 26 & 33)

Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licencing Committee, Region **Erongo.**

1. Name and postal address of applicant: **DPD Trading CC, P O Box 81042, Windhoek.**
2. Name of business to which application relates: **"Garnish Swakopmund".**
3. Address/location of premises to which application relates: **Erf 260, No 18 Tobias Hainyeko Street, Swakopmund.**
4. Nature and details of application: **Application for Permanent Re-moval of a Special Liquor Licence FROM: Erf No 260, No 18 Tobias Hainyeko Street, Swakopmund" TO: Erf 948/257, Shop 46 - 48, Ankerplatz, Sam Nujoma Avenue Swakopmund".**
5. Clerk of the Court with whom application will be lodged: **Clerk of the Magistrate's Court, Swakopmund.**
6. Date on which application will be lodged: **27 July 2020.**
7. Date of meeting of Committee at which application will be heard: **9 September**

ESTATE NOTICE

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

Notice 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.

If no objection against the aforesaid account is lodged within the period stated, the Executor will proceed to pay out in accordance with the contents thereof.

ELLIS SHILENGUDWA INC
Pieter Frederik Harmsen
Legal Practitioners
Stadtmitte
2nd Floor
Sam Nujoma Avenue
P. O. Box 2148
Swakopmund
(Ref: MAT17535 - ml/am)

PUBLIC NOTICE

PARTIAL ROAD CLOSURE

NANGOLO MBUMBA DRIVE

ERONGO
"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 are 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
EAP: 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 48 "8 of February 6th 2012 . The proposed two (2) developments – Construction of a Potable Water Reservoir and Creation of Public Road, may not be undertaken without ECCs as enshrined in the Environmental Management Act (Act 7 of 2007) and its Regulations.

The E A 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 are hereby invited to register and participate in the public consultation process to give input, comments, and opinions. Please submit your comments in writing not later than 24 July 2020.

Commenting Period: 10 – 24 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 24 July 2020.
Email: erongoconsulting@gmail.com / info@erongoconsultinggroup.co.za

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

IN THE HIGH COURT OF NAMIBIA NORTHERN LOCAL DIVISION

In the matter between:

CASE NO: HC-NLD-CIV-ACT-CON -2019/00028 1

BACHMUS OIL & FUELS SUPPLY (PTY) LTD
PLAINTIFF

AND

MAVINGA TRADING ENTERPRISES CC
1ST DEFENDANT

PAULUS FABIANUS
1ST DEFENDANT

NOTICE OF SALE IN EXECUTION

IN THE EXECUTION of a Judgment of the above Honourable Court, the following goods will be sold by Public Auction at, **ADVANCE REFRIGERATION, MAIN ROAD OSHAKATI, at 12H00 on the 23RD JULY 2020.**

1 X IVECO 380 TRUCK N 400002 SH
1 X MOBILE CARD VAN
1 X IVECO BUS REGISTRATION N 540 000 SH
1 X TRAILER WITH DIESEL TANK
1 X MOTORCADES DIESEL TANKER TRUCK (NO REGISTRATION NUMBER)

CONDITIONS OF SALE "VOETSTOOTS" - CASH TO THE HIGHEST BIDDER

Dated and SIGNED a OSHAKATI on this the 26TH day of JUNE 2020

GREYLING & ASSOCIATES
ERF 849 : ROBERT MUGABE STREET
PRIVATE BAG 5552 :
OSHAKATI
TEL. 065 221617/8 OR FAX 221619 REF. JG/002495

IN THE MAGISTRATE'S COURT FOR THE DISTRICT OF OSHAKATI

HELD AT OSHAKATI
CASE NO. 182/2019'

In the matter between:

SIMSON AINGURA t/a AINGURA ATTORNEYS
PLAINTIFF

of the above Honorable Court dated 4th of February 2019 the following goods will be sold in a sale in execution on 23RD of July 2020 at Advanced Refrigeration, Main Road, Oshakati at 12h00

1. 1 X FRIDGE
2. 1 X FLAT SCREEN TV
3. 1 X DSTV
4. 1 X DOUBLE BED

TERMS OF SALE:
VOETSTOOTS AND CASH TO THE HIGHEST BIDDER

DATED at OSHAKATI this 25TH day of JUNE 2020.

36 | NEWS Friday 10 July 2020 | NEW ERA

CLASSIFIEDS

Tel: (061 2080844 Fax (061) 220584 Email: Lmeroro@nepc.com.na

Notice / Legal Notice

IN THE HIGH COURT OF NAMIBIA NORTHERN LOCAL DIVISION

In the matter between:

CASE NO: HC-NLD-CIV-ACT-CON -2019/00028 1

BACHMUS OIL & FUELS SUPPLY (PTY) LTD
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AND

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TERMS OF SALE:
VOETSTOOTS AND CASH TO THE HIGHEST BIDDER

DATED at OSHAKATI this 25TH day of JUNE 2020.

Notice / Legal Notice

AINGURA ATTORNEYS
Legal Practioners for Plaintiff
Per: S Aingura
room 205, palms complex
corner of Robert Mugabe & Main Road
Oshakati
(Ref: S18062)

NOTICE TO ALL INTERESTED PERSONS IN THE FOLLOWING DECEASED ESTATE:

In terms of section 35(5) of the Act 66 of 1965 notice is hereby given that the first and final Liquidation and Distribution Account in the estate below will be available for inspection in the office of the Master of High Court, Windhoek for 21 days as from date of publication of this notice and in the town where the deceased resided.

1. Estate Late:
MARIANNE NGHIHEPAVALI
Estate no:
715/2014
Date of birth:
28 APRIL 1962
ID no:
6204280000546
Address:
ERF 5524, KATUTURA, WINDHOEK, KHOMAS REGION
Who died on
29 MARCH 1997

Harmony Capital Investments
264 Independence Avenue
ACME Corner building
1st floor - Office 8, WINDHOEK

P.O. Box 6507, Ausspannplatz
- Windhoek Email:
hciestates@gmail.com

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OHANGWENA
1. Name and postal address of applicant
AMOONGA ARMAS SHIKESHO
P.O.BOX 150, OHANGWENA
2. Name of business or proposed Business to which applicant relates
OGONGO SHEBEEN
3. Address/Location of premises to which Application relates:
NAMUNDJEMBO LOCATION, OMAFO, HELAO NAFIDI TOWN
4. Nature and details of application:
SHEBEEN LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
EENHANA
6. Date on which application will be Lodged:
13 JULY 2020
7 Date of meeting of Committee at Which application will be heard:
05 AUGUST 2020
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

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Brand New 2 Bed & 1 Bath apartments from N$3700 pm available for rental at
Bridge Park Security Estate, Okahandja!
Do not miss out!
Apply now and get your First month's rent for Free!
Contact:
Wilbard 081 416 9369

Notice / Legal Notice

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998
NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
KHOMAS
1. Name and postal address of applicant
GOFULGA MARIUS SHEEYA
P.O BOX 80265, SOWETO
KATUTURA
2. Name of business or proposed Business to which applicant relates
G M BAR
3. Address/Location of premises to which Application relates:
ERF 10546, GENESIS STREET, SINGLE QUART, KATUTURA, WINDHOEK
4. Nature and details of application:
SHEBEEN LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
WINDHOEK MAGISTRATE COURT
6. Date on which application will be Lodged:
22 JULY 2020
7 Date of meeting of Committee at Which application will be heard:
09 SEPTEMBER 2020
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

ERONGO CONSULTING GROUP
"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 Two Developments:
1) Construction Of Potable Water Reservoir (to be constructed on a 30m x 30m area at the Smallholdings area)
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Proponent: Swakopmund Municipality
EAP: 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 an Environmental Clearance Certificate (ECC), 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 0f February 6th 2012). The proposed two (2) developments – Construction of a Potable Water Reservoir and Creation of Public Road, may not be undertaken without Environmental Clearance Certificate (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 are 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 are hereby invited to register and participate in the public consultation process to give input, comments, and opinions. Please submit your comments in writing not later than 24 July 2020.

COMMENTING PERIODS: 17 – 24 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 24 JULY 2020.
- Email: erongoconsulting@gmail.com / info@erongoconsultinggroup.co.za /
- www.erongoconsultinggroup.com / www.erongoconsultinggroup.co.za
- facebook.com/erongoconsult | Twitter: @erongoconsult

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

Solar supply & installation in all 14 Regions by

GENERATION RESOURCES

Financing for solar home system, solar water pumps for farming & solar geysers, available through MME Solar Revolving Fund & FNB West Bank

Contact: 0812446633
Email: timwaen@gmail.com

Notice / Legal Notice

Estate Late: Gert De Klerk
ID:3909120286
Masters Ref: 1401/2017 WHK

Dear Sir/ Madam

Notice is hereby given that the First and Final Liquidation and Distribution Account in the abovementioned estate will be lying for inspection at the office of The Master of The High Court and the Magistrates Office Rehoboth for a period of twenty one days from the date of publication of this notice.

W.T. Christians Legal Practitioners ' Erf 122 B Rehoboth

Estate Late: Yvonne Elaine Mouton
ID: 5410160011 2
Masters Ref: 608/2018 WHK

Dear Sir/ Madam

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 Magistrates Office Rehoboth for a period of twenty one days from the date of publication of this notice.

W.T. Christians Legal Practitioners Erf 122 B Rehoboth

Notice / Legal Notice

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
ZAMBEZI
1. Name and postal address of applicant
NDIYAMBWA SIMEON TANGENI
MAKARAVAN WEST
2. Name of business or proposed Business to which applicant relates
EHAFO BAR
3. Address/Location of premises to which Application relates:
MAKARAVAN WEST
4. Nature and details of application:
SPECIAL LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
KATIMA MULILO
6. Date on which application will be Lodged:
03/08/2020
7 Date of meeting of Committee at Which application will be heard:
07/10/2020
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OMUSATI
1. Name and postal address of applicant
AMAHYANGA KLEOPAS, P.O.BOX 572 OUTAPI – NAMIBIA
2. Name of business or proposed Business to which applicant relates
CHIPWAKALA SHEBEEN
3. Address/Location of premises to which Application relates:
OMUNYELE VILLAGE OF OMBALANTU
4. Nature and details of application:
SHEBEEN LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
OUTAPI
6. Date on which application will be Lodged:
20 – 31 JULY 2020
7 Date of meeting of Committee at Which application will be heard:
09 SEPTEMBER 2020
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

PHARMACIST
NEEDED: Looking for responsible pharmacist 3-5yrs experience in retail pharmacy management. Sent CVs to careonepharmacy@iway.na
Due date:
15 July 2020 12pm

Public Notice

Notice is hereby given that Liquor Licence Advertising fee, will increase to N$ 402.50 including VAT, as from 1 January 2020.

Liquor Licence

Employment / Offered

VACANCY at Habitas Hotel Namibia

Position:
Experiential Luxury Hotel Training Manager

Minimum requirements and experience:
- Tertiary Education in Hospitality
- Fluent in written and spoken English, French and German
- 9+ years' experience in a senior management position at luxury international hospitality
- Excellent leadership skills in line with Habitas philosophy
- Experience in managing according to experiential tourism business models
- Experience in setting up and managing the upkeep of low-impact 3D-design lodge infrastructure
- Effective financial management and ability to forecast and structure budgets
- Effective management of F&B department
- Experience in training hospitality staff in line with the Habitas Standard of Excellence
- Excellent computer literacy and knowledge of POS systems
- Highly experienced in the management of OS&E and FF&E of luxury guests
- Experience in developing and design Ecotourism packages for guests
- Advanced knowledge and experience in Hospitality Business Development
- Previous experience in developing and implementing marketing strategies
- Code B Driver's License

Live out position that requires working around the clock and must have a functional 4x4 to drive in and out of Habitas farm.

Email motivational letter, certified copy of passport, CV with references and educational transcripts to:

hr@habitasnamibia.com

Application deadline:
13 July 2020.

VACANCY

Position: Medical Practitioner
Company: Medrez Investments cc
Requirements: A degree in Medicine from a recognized university. Registered with HPCNA. Priority given to Namibian Citizens or permanent residence.

Closing date:
13 July 2020

Email CV to :
taubenpractice@iway.na

SPCA / Adopt a pet

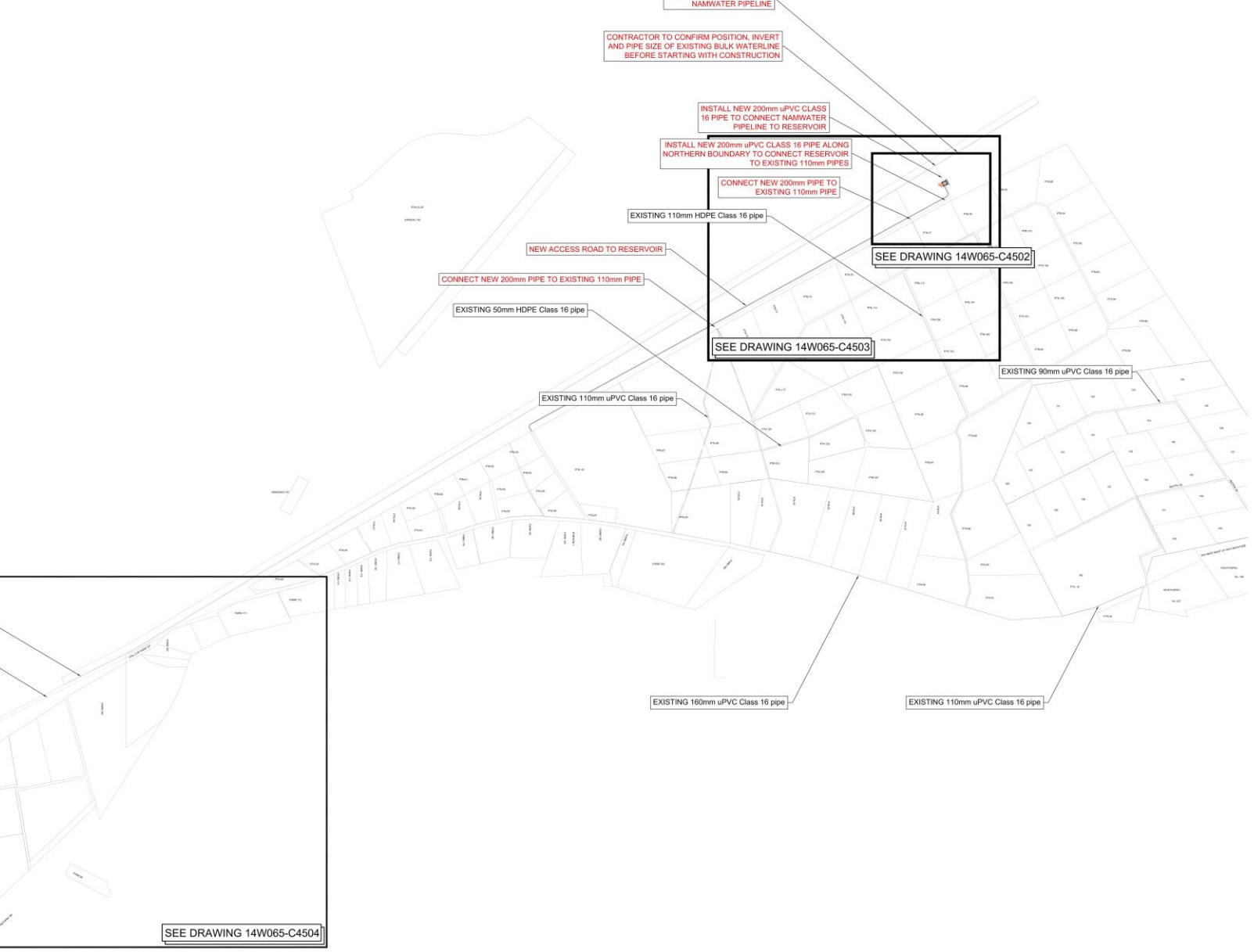
DBV SPCA Windhoek

ADOPT A PET THIS WINTER!

Open your heart to those in need. Give them a warm & loving home!

CALL THE SPCA ON:
061 258645
OR
0811244520.
DONATIONS:
SPCA Windhoek
FNB Account:
62247995915
Code: 281174

Figures 5 - 6: Newspaper Adverts: Namib Times 17 July 2020 & New Era 10 July 2020



unless specified otherwise
6. All existing water inverts and positions to be confirmed on site by contractor and sent to Engineer to review before any construction starts.
7. Minimum cover above pipes to be 800mm.
8. Inspector from Local Authority and Engineer to be notified to do inspection of pipe, fittings and manholes installed before any backfilling is done

DRAWING ISSUE: -

PRELIMINARY		TENDERS	
APPROVAL		CONSTRUCTION	
COORDINATION		AS BUILT	

STRUCTURAL DESIGN: N. Human (PE 2010-2)

CAD OPERATOR/DESIGN: R.Januarie

APPROVED ENGINEER:

APPROVED CLIENT:

AMENDMENTS:

DATE:	NO:	DESCRIPTION:	APPROVED:
28/03/2017	A	Issued for information	
30/03/2017	B	Issued for information	
31/03/2017	C	Issued for information	
18/01/2018	D	Issued for tender	
22/01/2018	E	Issued for tender	
02/02/2018	F	Issued for tender	

ingplan CONSULTING ENGINEERS
INGPLAN CONSULTING ENGINEERS & PROJECT MANAGERS NAMIBIA (PTY) LTD
C/O ROBERT MUGABE AVE & JAN JONKER ROAD, WINDHOEK
PO BOX 90835, KLEIN WINDHOEK, NAMIBIA
TEL:+264 (0) 61 245 339/345 FAX:+264 (0)61 245 343
E-MAIL: info@ingplan.com.na www.ingplan.com.na

ACEN

CLIENT: SWAKOPMUND MUNICIPALITY

PROJECT:
DESIGN OF A POTABLE WATER RESERVOIR FOR SMALL HOLDINGS

NORTH:

FULL DESCRIPTION OF DRAWING:
BULK WATER KEY PLAN

ARCHITECTS NO:	DATE:
	02-02-2018
SCALE: **1:13000 (A0)**	SITE: **SWAKOPMUND**
DRAWING NR: **14W065-C4501**	REV: **F**

MET APPLICATION NUMBER - APP-001638

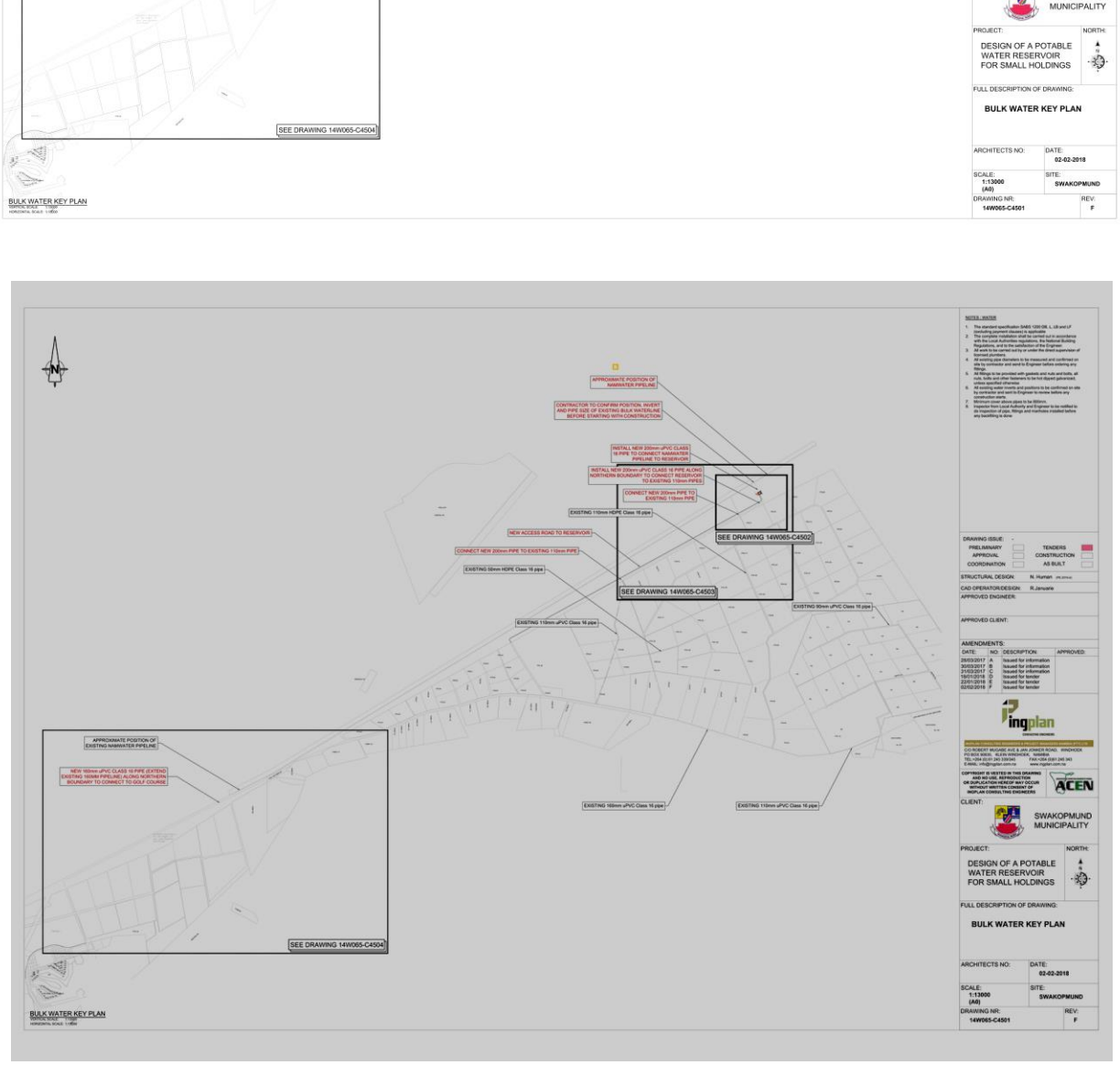


Figure 6.2: Bulk Water Layout Plan – Swakopmund Municipality

Figure 6.3: Sample Municipal Potable Water Reservoir (Courtesy: Erongo Consulting Group)

Nature shrinks as capital grows. The growth of the market cannot solve the very crisis it creates.

— Vandana Shiv

7. ANALYSIS OF ENVIRONMENTAL IMPACTS

7.1. Summary of Impacts

Table 7.1 summarizes the impacts for each activity related to the project and presents the magnitude, frequency, likelihood and consequence of each impact.

Table 7.1: Summary of Impacts

Activity	Type of Impact	Magnitude	Frequency / Duration	Likelihood	Consequence (+/-)
CONSTRUCTION PHASE					
Site Preparation	Construction of the water network may cause increase in traffic in the area	Medium	Only during construction	Medium	Negative
	Construction of a temporary site offices and lay down area may have a limited impact on the topography	Minimal	Only during construction	Low	Negative
	Commercial activities hindered because of the difficulty of access	Medium	Only during construction	Low	Negative
General use of vehicles and machinery	Water for wash down of vehicles and machinery on site may contaminate groundwater	Significant	Permanent	Low	Negative
	Spills or leaks of fuels, lubricants or chemicals from machinery and vehicles may contaminate groundwater	Significant	Permanent	Low	Negative
	Source of noise	Medium	Only during construction	High	Negative
General laborers presence on site	Inadequate storage and management of litter, construction	Medium	Only during construction	Medium	Negative

Activity	Type of Impact	Magnitude	Frequency / Duration	Likelihood	Consequence (+/-)
	waste and liquid wastes prior to disposal				
	Effluent from construction workers' temporary amenities leaching into groundwater, carrying nutrients and micro-organisms	Significant	Permanent	Medium	Negative
	Contamination of the storm water from litter and construction wastes and untreated effluent from temporary workers' amenities	Medium	Only during construction	Low	Negative
	Odor generated from sewer of worker's amenities	Significant	Only during construction	High	Negative
	Traffic due to transport of personnel	Medium	Only during construction	Medium	Negative
Excavation works	Heavy noises near schools can affect learning	Medium	Only during construction	Minimal	Negative
	Dust emissions generated from earthworks due to loading and unloading of materials on site and from uncovered truckload in addition to the potential dust emissions that could occur as a result of 4km of excavation for the water supply network	Minimal	Only during construction	Medium	Negative
	Contamination of storm water from exposed soils	Medium	Only during construction	Low	Negative
	Generation of excavation material to be disposed of	Medium	Only during construction	High	Negative
	Potential public safety concerns associated with the excavation works for the installation of the water supply network	Low	Only during construction	Low	Negative

Activity	Type of Impact	Magnitude	Frequency / Duration	Likelihood	Consequence (+/-)
Manhole construction	Potential worker accidents from constructing manholes	Significant	Only during construction	Low	Negative
Breaking of existing concrete bases of the old pumps	Generation of debris to be disposed outside the project site	Medium	Only during construction	High	Negative
	Dust emissions during breaking of concrete that might affect workers health	Medium	Only during construction	High	Negative
Disposal of debris hauling to an approved location	Traffic congestion	Medium	Only during construction	Medium	Negative
	Adverse impact on the health of the workers and residents in and around the due to deterioration of the air quality, increase of noise and traffic	Significant	Only during construction	Medium	Negative
	Volatile emissions during earthwork phase from solvents and fuels stored or used on the Project site	Medium	Only during construction	High	Negative
	Exhaust and dust emissions from construction vehicles and machinery	Medium	Only during construction	High	Negative
Facility façade	Negative visual effect on aesthetics	Minimal	Permanent	Low	Negative
Installation of electric cables to connect pumps with the power source	Use of potentially harmful materials (e.g. PCB)	Significant	Permanent	Low	Negative
OPERATION PHASE					
Delivery of Water Treatment Plant supplies	Increase traffic of vehicles required to deliver materials and supply for the treatment processes	Low	Permanent	Low	Negative
Water extraction from the lake	Water drawdown	Significant	Permanent	Low	Negative
	Unsustainable water use	Medium	Permanent	Low	Negative
	Decrease in water available for existing flora and fauna in the lake	Minimal	Permanent	Low	Negative
	Effects on the current fishing activities	Minimal	Permanent	Low	Negative

.

Activity	Type of Impact	Magnitude	Frequency / Duration	Likelihood	Consequence (+/-)
	Effects on the sensitive ecosystem	Minimal	Permanent	Low	Negative
	Increase of water supply to population	Significant	Permanent	High	Positive
Backwash water	Backwash water to be disposed of	Significant	Permanent	High	Negative
Treatment of water by chlorination	Supply of improved drinking water quality to population	Significant	Permanent	High	Positive
	Risk of wrong dosage	Significant	Single event occurrences	Low	Negative
	Potential hazard from the use of chlorine	Significant	Permanent	Low	Negative
Waste generation	Chemicals coagulation, settled water from pre-sedimentation	Minimal	Permanent	Low	Negative
Pump room operation	Halted operation due to electricity cuts	Medium	Single event occurrences	Low	Negative
	Pollution in case generators are needed	Minimal	Permanent	Medium	Negative
	Contamination of water due to spills and propagation of chemical elements (e.g. PCB, oil, etc.)	Significant	Permanent	Medium	Negative
	Risk of leakage from fuel storage tanks	Significant	Permanent	Medium	Negative
	Noise pollution	Minimal	Permanent	High	Negative
Water treatment plant facility	Aesthetic issue	Minimal	Permanent	Low	Negative
	Additional use of energy to operate the facility (electricity)	Minimal	Permanent	Low	Negative
Land use around facility	Deterioration of landscape (trees and plants) that exists at the proposed new site location	Minimal	Permanent	Low	Negative

7.2. Analysis of Negative Impacts and Mitigating Measures

After a qualitative study of the potential impacts that are caused by the construction of the new treatment plant, mitigation measures were developed to attenuate negative impacts as much as possible.

The project is an extension of an existing water treatment plant therefore the impacts will be minimal when included to those generated from the current facility.

Backwash water shall be discharged to a recovery basin and recycled for use in other areas such as irrigation or firefighting or for reprocessing with the inlet raw water. Sludge generated from water treatment may be sent to a lagoon or a drying bed for dewatering by gravity drainage and air drying, thickening and temporary storage. After a period of several months, the sludge cake formed on the surface is removed by hand shoveling or mechanical means.

Excavation and construction activities will be restricted to daytime only for less noise and dust impact.

Traffic impact at the site location is minimal during construction of the water treatment plant since it is a remote area where traffic is almost negligible. In the village, provisions will be made for a shared worker's transport from workers accommodation to the proposed Project site and avoid transportation activities during traffic peak hours (8:00 AM – 9:00 AM and 5:00 PM to 6:00 PM).

Palm Trees shall be replanted around the site to improve the visual impact and reduce noise and dust.

Further mitigation measures are elaborated in **Table 8.1.**

7.3. Analysis of Positive Impacts and Opportunities for Enhancement

Improvements in the drinking water quality and increase in the water supply represent the most important positive impacts of the project. The proposed treatment plant shall produce water which complies with the recommendations of the World Health Organization in addition to the operational requirements outlined below.

Table 7.2: Water Quality Requirements

Parameter (units)	Requirements		
	Target Mean	Guide Levels at 95%	Maximum Permissible Levels
Turbidity (NTU)	0.2	0.8	3
Color (mg/l pt-Co)	0.5	1	20
Aluminum (mg/l)	0.03	0.05	0.2
Iron(mg/l)	0.03	0.05	0.2
Manganese (mg/l)	0.015	0.02	0.05
pH (1)	-	6.5 - 8.5	-
Taste and Odor (TON)	-	-	3
THM (µg/l)	-	-	100
Total Coliforms/100 ml	-	0	< 1
Chlorine residual after 30 min. (mg/l)	-	0.5	0.7

(1) The water shall not be corrosive (or aggressive) or noticeably scale forming as such, the water shall have a slightly positive "Langelier" index.

With the population increase and the influx of job seekers, the implementation of this project is necessary to meet with the population needs. Almost 50 000 inhabitants will benefit from the proposed Potable Water Reservoir and related infrastructure. Other major enhancements include timely supply, better equitable water distribution, and extensive service area.

7.4. Long-Term or Cumulative Effects

Management regulations and appropriate operation procedures are required to achieve full control.

Here is your country. Cherish these natural wonders, cherish the natural resources, cherish the history and romance as a sacred heritage, for your children and your children's children. Do not let selfish men or greedy interests skin your country of its beauty, its riches or its romance.—
Theodore Roosevelt

8. ENVIRONMENTAL CONSIDERATIONS DURING IMPLEMENTATION

8.1. Environmental Impacts and Mitigation Measurers

The mitigation actions and approaches of all identified impacts are presented in Table 7.1

Table 8.1: Impacts And Mitigation Measures

Activity/Impact	Mitigating Actions and Approaches
Construction of a temporary site offices and lay down area may have a limited impact on the topography	Limit earthworks to the minimum required for the proposed facilities such as site office
Commercial activities hindered because of the difficulty of access	Local residents should be employed during the construction phases wherever feasible
Water for wash down of vehicles and machinery on site may contaminate groundwater	Provision of uncontaminated water for dust suppression and wash down of vehicles and machinery
Spills or leaks of fuels, lubricants or chemicals from machinery and vehicles may contaminate groundwater	Spill control measures should be implemented to prevent spills from infiltrating into the groundwater table. Measures should include appropriate materials handling and storage procedures, and development of contingency plans in the event of a spill
Noise pollution during construction	Make sure all machinery and vehicles are fitted with appropriate mufflers, and that all mufflers and acoustic treatments are in good working order;
	Make sure all machinery and vehicles are regularly maintained and broken parts (such as mufflers) are replaced immediately

Activity/Impact	Mitigating Actions and Approaches
	Make sure all machinery and vehicles are operated efficiently and according to the manufacturers specifications, by trained and qualified operator
	Make sure that activities likely to cause adverse noise impacts are timed to have least impact on surrounding land users and other site activities (such as the residential areas)
	Make sure all personnel are issued with hearing protection and are advised of its proper use
	Consultation of earthwork hours with affected residents and nearby sensitive receivers
Inadequate storage and management of litter, construction waste and liquid wastes prior to disposal	Waste management measures should be implemented to prevent litter and debris and liquid wastes from entering soil excavations
Effluent from construction workers' temporary amenities leaching into groundwater, carrying nutrients and micro-organisms	Provision of temporary amenities for workers. Effluent should be treated or suitably disposed off-site
Contamination of the storm water from litter and construction wastes and untreated effluent from temporary workers' amenities	Waste control measures should be implemented to prevent litter and construction waste from infiltrating into the groundwater table
	Provision of suitable workers' amenities facilities. If possible, effluent should be disposed of off-site at a nearby STP
High volume of excavation and filling may alter flow paths within the portions under construction	Re-use any excess excavation material generated by the construction within the site or on the other nearby projects. The deposit of waste to landfill is a last resort.

Activity/Impact	Mitigating Actions and Approaches
	Reduce as much as possible difference between cut and fill
Odor generated from sewer of worker's amenities	Provision of suitable workers' amenities, located within the construction area and, if possible, downwind from residential areas
	Regular maintenance of workers' amenities, including the emptying of effluent storage tanks
Traffic congestions	Provision of shared worker's transport from workers accommodation to the proposed Project site
	Installation of warning signs and specified speed limits (site roads should reduce traffic speeds to 20 km/hr)
	The use of local construction materials where practical to avoid long journeys
	Provision of adequate lighting on site road and parking areas
	Timing of construction activity, such as restricting construction traffic to designated roads during designated times, avoiding peak hour traffic
	Design a traffic plan to make sure that traffic avoids, where possible, congested and heavily populated areas and dusty roads
Heavy noises near residential plots / vocational training centre (COSDEC) can affect tranquility	Construction works within 100m of schools should be restricted to outside school hours (such as before and after school, during school holidays or weekends, or left as the final stage of works); Wire fence meshing, dust screens or wooden hoardings should be installed to delineate the construction area and therefore decrease impacts; The access points for construction vehicles should be a minimum of 100m from school access

Activity/Impact	Mitigating Actions and Approaches
Dust emissions generated from earthworks due to loading and unloading of materials on site and from uncovered truckload in addition to the potential dust emissions that could occur as a result of 4km of excavation for the water supply network	Minimizing the height and slope of stockpiles to ensure erosion of unconsolidated materials during rainfall events does not occur
	Side enclosure and covering, by impervious sheeting, of any aggregate or other dusty material stockpiles
	Dusty vehicle loads transported to, from and within the Project site should be covered by sheets and should not be overloaded
	Use of water sprays to decrease dust generation
Contamination of storm water from exposed soils sediments	The height and slope of stockpiles should be limited to minimize erosion of unconsolidated materials during rainfall events
	Locating stockpiles on flat areas, away from storm water. Ensure that sediment or erosion cannot reach a waterway; Diversion of overland flow around work areas / construction sites
Generation of excavation material to be disposed of	Re-use of excavated material for the project or other projects in the area
Potential public safety concerns associated with the excavation works for the installation of the water supply network	The area surrounding the excavations should be fenced off or otherwise restricted from public access to prevent injury or accident due to entry onto a construction site
Potential worker accidents from constructing manholes	Following mitigation measures are recommended for the prevention of gas emissions
Generation of debris to be disposed outside the project site	Solid waste that cannot be re-used shall be disposed of in approved landfills
Dust emissions during breaking of concrete that might affect workers health	Use of water sprays to decrease dust emissions

Activity/Impact	Mitigating Actions and Approaches
Adverse impact on the health of the workers and residents in and around the due to deterioration of the air quality, increase of noise and traffic	Implement the air quality, noise and traffic mitigation measures as described in the relevant sections
Volatile emissions during earthwork phase from solvents and fuels stored or used on the Project site	Ensure all machinery is in good order and repair and not leaking fuel or volatile emissions from fuel tanks or fuel lines
	A full list of all volatile fuels and chemicals stored on site should be kept by the site supervisor, including accompanying volumes, locations and Material Safety Data Sheets (MSDSs)
Exhaust and dust emissions from construction vehicles and machinery	Use of modern machinery, with adequate pollution control devices. Regular maintenance and inspection programs for all construction vehicles.
	Proper and efficient operation of construction machinery and vehicles by qualified workers
	Regular maintenance and inspection program for all construction vehicles
	Minimize unnecessary operation of construction machinery, including efficiency of trip times and reduction of double handling through appropriate placement of stockpiles, haul roads, work depots and work areas
	Daily visual checks to ensure the above points are followed, particularly in regards to smoke emissions from vehicles and plants. Equipment generating smoke should be given defect notices and taken out of service until repaired and approved for re-deployment by site supervisor.
Visual effect on aesthetics	Design facilities' facades in a subtle way that matches its surroundings and reduce their size as much as possible to minimize the potential negative effects on aesthetics.

Activity/Impact	Mitigating Actions and Approaches
Use of potentially harmful materials (e.g. PCB)	Limit use of harmful materials. If unavoidable, impose monitoring and maintenance
Improper chlorination dosage may alter water quality	Regular monitoring of water content and of chlorination performance
Water drawdown	Control water extraction to match as close as possible the groundwater recharge rate
Unsustainable water use	Water extraction monitoring
	Sensitize and educate the beneficiaries/refugees on the need to conserve water and promote best practices in the use of water
	Improved irrigation practices
Decrease in water available for existing flora and fauna in the lake	Control water extraction to match as close as possible the groundwater recharge rate
Effects on the current fishing activities	Control water extraction to match as close as possible the groundwater recharge rate
Effects on the sensitive ecosystem	Minimize habitat loss due to construction activities
Backwash water to be disposed of without treatment	Recycle backwash water to the treatment plant inflow water
Risk of wrong chlorination dosage	Regular monitoring of water content and of chlorination performance
Potential hazard from the use of chlorine	Regular monitoring of chlorination performance and appropriate disposal of wastes
Chemicals coagulation, settled water from pre-sedimentation	Empty sedimentation pond more frequently and dispose solid waste at specified landfills

Activity/Impact	Mitigating Actions and Approaches
Halted operation due to electricity cuts	Use backup sources of power (e.g. traditional, renewable, etc.)
Pollution in case generators are needed	Use double hulled storage tanks for fuel
Contamination of water due to spills and propagation of chemical elements (e.g. PCB, oil, etc.)	Store chemicals in a contained location with no drainage connection to the water network
	Ensure that transformers are located on impermeable and contained surfaces
Risk of leakage from fuel storage tanks	Cover area where fuel storage tank is located with impervious material to limit leakage to groundwater
Noise pollution during operation	Plant trees and shrubs around facility and fitting of mufflers on equipment
Aesthetic issue	Plant trees and shrubs around facility
Additional use of energy to operate the facility (electricity)	Use alternative power sources such as solar power
Deterioration of landscape (trees and plants) that exists at the proposed new site location	Plant trees and shrubs around facility

8.2. Monitoring Environment Effects and Mitigation

During the construction phase, the resident engineer on site would designate a person to continuously monitor the activities that have been highlighted above that would cause a negative impact and that subsequently necessitate mitigation action. The monitoring would ensure that mitigation measures are strictly followed and any nonconformance would be reported to the resident engineer for correction. Some monitoring activities would include but not be limited to:

- **Site inspection**
- **Construction activities**
- **Disposal activities**
- **Worker behavior**
- **Traffic**
- **Power supply**

Such a monitoring effort would limit any negative impact from nonconformance and would enable a better implementation of the management plan.

In order to ensure that the water treatment plant and the corresponding entities (tanks, network, valves and fittings, etc.…) are properly operating there would be a team, NamWater and Swakopmund Municipality Water Works, designated for their follow-up. During operation this team would also monitor on a regular basis the level of water in the lake, chlorination dosage and power supply – the main potential sources of negative impacts.

Sample Municipal Potable Water Storage Tanks – Courtesy Erongo Consulting Group, 2020

We shall never understand the natural environment until we see it as a living organism. Today you can murder land for private profit. You can leave the corpse for all to see and nobody calls the cops.
— Paul Brooks

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