

RENEWAL OF THE ECC

ENVIRONMENTAL SCOPING REPORT FOR THE PROPOSED REZONING OF PORTION A/4187 AS A “PUBLIC OPEN SPACE” TO “BUSINESS” AND CONSTRUCTION OF A MULTI-TENANT COMMERCIAL PLAZA IN ONDANGWA EXTENSION 18.



PREPARED FOR:

Trans-Kalahari Logistics.

P.O. Box 1889

Swakopmund



PREPARED BY:

Green Gain
Consultants

+264 81142 2927

info@greengain.com.na

<https://www.greengain.com.na>

SEPTEMBER 2017

DOCUMENT DESCRIPTION

PROJECT:	Environmental Impact Assessment (EIA) for the Rezoning of portion A/4187 from Public Open Space (POS) to “Business” and Construction of a Commercial and Logistic Plaza in Ondangwa Extension 18.
CLIENT:	Trans-Kalahari Logistics cc. P.O. Box 1889, Swakopmund Mr. Joseph P Mundjele Cell: +26481-1295854 Email: transk.logistics@gmail.com
EAP:	Green Gain Environmental Consultants cc Mr. Joseph Kondja Amushila Cell: 081-1422927 Email: info@greengain.com.na
DOCUMENT TYPE:	Final Environmental Assessment Report
ASSESSMENT PERIOD	August-September 2017

TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES.....	4
LIST OF ACRONYMS	5
EXECUTIVE SUMMARY	6
1. INTRODUCTION	7
1.1 Background	7
1.2 Purpose of the study	7
1.3 Scope of the study	7
1.4 Professional Involved	8
2. DESCRIPTION OF THE PROPOSED DEVELOPMENT.....	9
2.1 The Site locality.....	9
2.2 Site context.....	10
2.3 Proposed Activities.....	12
2.4 Project alternatives	16
2.5 Need and Desirability of the project.....	17
3. DESCRIPTION OF THE AFFECTED ENVIRONMENT	18
3.1 Biophysical.....	18
3.2 Socio-economic profile of Ondangwa.....	23
4. APPROACH TO THE ENVIRONMENTAL SCOPING STUDY.....	25
4.1 Baseline study	25
4.2 Public participation process	26
4.2.1 Identification of interested and affected parties.....	26
4.2.2 Public notifications.....	26
4.2.3 Soliciting of Inputs from relevant stakeholders	26
4.2.4 Background Information Document (BID)	26
4.3 Summary of issues from public participation	27
5. LEGAL REQUIREMENTS	28
6. ANTICIPATED PROJECT IMPACTS	32
6.1 Expected Environmental Impacts.....	32
6.1.1 Planning and Design Phase.....	32
6.1.2 Impacts during Construction.....	33

6.1.3	Operational Phase.....	36
7.	ASSESSMENT OF IDENTIFIED IMPACTS.....	37
7.1	Risk Assessment and Rating.....	37
7.2	Planning and Design.....	39
7.3	Construction Phase.....	40
7.4	Operational Phase.....	42
8.	CONCLUSION AND RECOMMEDATIONS.....	43
8.1	Conclusions.....	43
8.2	EAP recommendations.....	43
9.	REFERENCES.....	44
10.	APPENDICES.....	45
	Appendix A: EAP CV.....	46
	Appendix B: Public Notification.....	48
	Appendix C: List if IAP consulted.....	50
	Appendix D: Attendance Register for the Public Meeting.....	51
	Appendix E: Issue Response Report.....	52
	Appendix F: Business Proposal.....	52
	Appendix G: ESMP.....	52

LIST OF TABLES

Table 1: Project Team.....	8
Table 2: List of flora and fauna observed or expected at the site	21
Table 3: Applicable laws	28
Table 4: Significance rating	37
Table 5: Color coding meaning.....	38
Table 6: Risk Assessment: Planning and Design Phase	39
Table 7: Risk Assessment: Construction Phase	40
Table 8: Risk Assessment: Operation Phase.....	42

LIST OF FIGURES

Figure 1: Locality map (Google Earth-Green Gain, 2017).....	9
Figure 2: Site overview	10
Figure 3: Site description	11
Figure 4: Site zonation	12
Figure 5: Proposed site layout and design.....	13
Figure 6: Project components (Phase 1).....	14
Figure 7: Project component (Phase2)	15
Figure 8; Flood risk assessment	19
Figure 9: Flora and Fauna of the site.....	21
Figure 10: How the site looks during rainy season	22
Figure 11: Protected Tree Specie	22

LIST OF ACRONYMS

DEA:	Directorate of Environmental Affairs
DWRM:	Directorate of Water Resource Management
EAP:	Environmental Assessment Policy
EIA:	Environmental Impact Assessment
EMA:	Environmental Management Act
EMD:	Environmental Management Division
EMP:	Environmental Management Plan
I&AP:	Interested and Affected Parties
MAWF:	Ministry of Agriculture, Water and Forestry
MET:	Ministry of Environment and Tourism
NamWater:	Namibia Water Corporation
NORED:	Northern Electricity Distributor
OTC:	Ondangwa Town Council
POS:	Public Open Space
PPE:	Personal Protective Equipment

EXECUTIVE SUMMARY

Trans-Kalahari logistic cc has proposed to establish a commercial and logistic plaza on the portion A/4185, Ondangwa extension 18. The proposed development site is currently zoned as “Public Open Space” hence the proponent has appointed Plantek Town and Regional Planners to apply for the rezoning from “POS” to “Business” in accordance with the Environmental Management Act (No. 07 of 2007).

Green Gain Consultants cc has been appointed as an independent Environmental Consultant to undertake the Environmental Impact Assessment (EIA) for the proposed project. The purpose of the EIA study is to identify possible environmental and socio-economic impacts associated with the project and thus ensure that the negative impacts are mitigated and that positive impacts are enhanced.

The study made use of multidisciplinary approach which include: baseline assessment of the project area through collection of both primary and secondary data, consulting relevant stakeholders and Interested and Affected Parties (I&APs) and review of relevant literature and legal instruments. This Report contains the baseline assessment which includes; the description of the proposed project activities, the biophysical settings and socio-economic context of the affected environment. It also include the consideration of inputs from Interested & Affected and relevant Stakeholders and a review of relevant legislations to be complied with. The potential environmental and socio-economic impacts of the proposed development have been identified and risk assessment was conducted during the planning, construction and operational phase of the proposed development. Possible mitigation measures have been proposed and are contained in the Environmental and Social Management Plan (ESMP) which is also appended to this report.

1. INTRODUCTION

1.1 Background

Trans-Kalahari Logistics appointed Plantek Town and Regional Planners to apply for the permanent closure and rezoning of portion A/4185 from “Public Open Space” to “Business”. The proposed development site will be used for the construction of a multi-tenant and logistic plaza. The idea is to develop a multi-tenant business park for logistics operations, commercial service businesses and a 5 000 tonnes combined Cold storage facility as an anchor to stimulate the economy and job creation in the area.

In terms of the Environmental Management Act (No. 7 of 2007) and its Regulations (GN No.30 of 2012), the proposed activities (Rezoning of a “Public Open Space” to “Business” and construction activities) cannot be undertaken without an Environmental Impact Assessment (EIA) being carried out and an Environmental Clearance Certificate being obtained.

Trans-Kalahari Logistics cc appointed Green Gain Environmental Consultants cc as an independent Environmental Assessment Practitioner (EAP) to undertake the EIA study and apply for the Environmental Clearance Certificate from the Ministry of Environment and Tourism and obtain consent from the relevant authority (Ondangwa Town Council).

1.2 Purpose of the study

The aims of this EIA study was to:

- To investigate any environmental and socio-economic impacts associated with the proposed activities;
- Evaluate the suitability of the proposed development against the biophysical and socio-economic of the area;
- To suggest the most suitable mitigation measures in order to reduce the nature and extent of any negative impacts;
- To investigate the legal framework applicable to the proposed activities;
- To consult potential Interested and Affected Parties (I&AP’s) and relevant stakeholders and to also ensure that their needs and concerns are taken into account; and
- To comply with the Environmental Management Act (No.7 of 2007) requirements.

1.3 Scope of the study

This study was conducted in line with EIA process outlined in the Environmental Assessment Policy of 2008. The study made use of multidisciplinary approach which include: baseline assessment of the project area through collection of both primary and secondary data, consulting relevant stakeholders and Interested and Affected Parties (I&APs) and review of relevant literature and legal instruments. This resulted in the preparation of this Environmental Assessment Report. Appended to this report is an Environmental and Social Management Plan (ESMP) which contains various mitigation measures to mitigate the identified impacts.

1.4 Professional Involved

a) Project promoter

The proponent of this project is Trans-Kalahari Logistics cc. This company specializes in logistics and transportation services including transport infrastructure development and cross-border transportation. The company was established in 2009 as a long distance transportation company which later diversified its portfolio into bulk excavations, plant and tool hire as well as infrastructure development. The company is owned by Joseph P. Mundjele, who is the Managing Director, born and raised in Ondangwa. He is a self-driven entrepreneur, who's highly motivated and passionate about developing and leading a successful enterprise.

b) Professional Team

Table 1: Project Team

Developer/Proponent	Trans-Kalahari Logistic cc P.O. Box 1889, Swakopmund Mr. Joseph P Mundjele Cell: +26481-1295854 Email: transk.logistics@gmail.com
Town Planner	Plantek Town and Regional Planner Mr. Jan Brits Email: plantek@africaonline.com.na
Environmental Assessment Practitioner	Green Gain Consultants cc Office No.07, Heidi's Ecke Building, 12 th RD Walvis Bay Email: info@greengain.com.na
Land Surveyor	Marwa land Mr. Gibson Marwa
Engineer (Civil/Electrical/Building Contractor)	Windhoek Consulting Engineer (WCE) Ondangwa
Architecture (Project Manager)	Lotter Krogh Architecture

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 The Site locality

The proposed development site is 20,00m² in size and is located in Ondangwa extension 18, along the Ondangwa-Oshakati Main.



Figure 1: Locality map (Google Earth-Green Gain, 2017)

2.2 Site context

The site is strategically located within the close proximity of important road networks: the Existing Ondangwa-Oshakati road; C46 on the north east, Ondangwa-Oshikango road on the east and the proposed trunk road; TR1-12 on the south-west.



Figure 2: Site overview

The proposed development site is located on the low-lying site and thus serves as major storm water catchment area and form a pond during the rainy season. The site is surrounded by existing development consisting of residential properties and a town lodge.



Figure 3: Site description

2.3 Proposed Activities

a) Rezoning from “Public Open Space” to “Business”

Due to this water depression feature the site is currently zoned as “Public Open Space” as per Ondangwa Town Planning Scheme (OTPS, 2013) amended. The proponent has appointed Plantek Town and Regional Planner to apply for the rezoning of the portion (20,000m²) from site.



Figure 4: Site zonation

b) Construction of the Commercial and Logistic Plaza

The proposed development is a mixed-use business park consisting of a cold storage facility, light industry and commercial amenities.



Figure 5: Proposed site layout and design

The proposed development will be developed in 2 phases and it's to be developed within the period of 24 months.

Phase 1

- Preliminaries (Access roads, platform)

The preliminaries element of phase 1 includes the engineering designs of both the access road and the business park. The access road will be of bitumen standard (approximately 480m in length) which will be taken over by the Ondangwa Town Council upon completion. The platform serves the purpose of raising the site to levels above expected flood levels, ensuring proper storm water drainage and establishing stable layer works, capable of carrying the buildings and the expected traffic loads.

- *Cold Storage*

A cold storage essentially consists of a number of refrigerated chambers which are able to chill, freeze and store any perishable products. The plan is to develop a 5,000 tones cold storage facility with a maximum storage capacity of 5,000 pallets. It is a combined cold storage consists of a various chambers of different cooling zones as well as, offices, laboratory, public service area, ablutions, workshop, packaging area and packaging material storage.

- *Commercial center*

A four storey building forms part of the business park as a commercial center, the center will be fitted with space for office suites as well as space for doctors' practices i.e. dentists and general practitioners. Also various professional service providers i.e. insurance, consulting and law practices will be catered for in the design of the center. A commercial bank and a mini-market would be availed space on the ground floor of the 4 storey building.



Figure 6: Project components (Phase 1)

Phase 2 (Mega warehouses)

A 1,300m² mega warehouse is also part of the park which is envisaged to serve as a showroom or a furniture shop. There will also be 8 warehouses which are slightly smaller than the mega warehouse measuring between 240m² - 450m² in sizes. These can be used as storage for supermarkets and other entities as distribution centers. The warehouses will be developed at a later stage as phase 2 of the entire development.

Figure 7: Project component (Phase2)

c) Project Investments

The total estimated project cost for both phases is N\$265million projected at 9.7% for a period of 20years. The monthly operating cost is about 5% of the rental income (N\$70,000) while the long term maintenance cost is estimated at 1% of the annual rental income. **For more information, see attached Business Proposal.**

2.4 Project alternatives

The EIA Regulations stipulates that the EIA process should investigate alternative development options to the proposed developments. The following alternatives were considered.

- **Land use alternatives:** the proposed development site is desired due to its strategic location which enable easy highway access and linkage to national freight routes, hence no alternative site was considered. *No-Go option* will mean, leaving the site as it is. For obvious reasons, the No-Go option is not a preferred alternatives. The site is within the developable land of the town and is surrounded by existing development and hence it currently serves as an eyesore which will be considered for development at one stage.
- **Layout and Design:** The proposed layout is preferred hence made provision for storm water flow channel to allow free flow of storm water during rainy season and avoid flooding of adjacent properties. The proponent must make sure the proposed yield and density to be accommodated is in accordance with the Ondangwa Town Planning Scheme. However an alternative has been considered in terms of access. The initial plan was to provide access both from the C46 and the proposed B1 trunk road (TR1-12 on the south-west). In consultation with the Roads Authority, such access is not permitted due to the nature and design of the trunk road, hence the only access should be from the C46 road on the north-east of the site.
- **Operational aspects:** The proposed plaza is considered as a “quiet mall” and thus compatible with the surrounding developments. The proponent must make sure the proposed facility does not operate during odd hours (mid-night) to avoid noise impacts from delivery vehicles that could be a nuisance to the neighboring houses.
- **Technology to be used:** One of the most important resources of concern will be electricity. The electricity usage is estimated at 111.50kW monthly for cold storage and common areas. It is thus recommended for the proponent to consider alternative energy sources such as “Solar Energy” by installing solar panels. The building must also be installed with rain water harvesting gutter channels and tanks.

2.5 Need and Desirability of the project

According to market research there is no single cold storage facility of industrial capacity within the 700 km radius of the Northern Namibia. The absence of cold storages has had a negative impact on prices of perishable goods due to high transport costs, and a scarcity of frozen goods and this has impacted negatively to the affordability of these goods. The country's growing population base provides an ideal opportunity for the development of a business park that offers amenities such as commercial and logistical hubs as well as cold storage facility. Roughly about 40% of food that is consumed in developing countries i.e. Namibia, are perishables thus the vision is to market the cold storage facility as the predominant business activity at the center. The master plan is to utilize the entire available space of the ground in so to realize maximum revenues from the facility. With a cold storage facility a sorting and packaging section will be integrated for the supplying of fish and other seafood products. A decision was taken to incorporate a Commercial centre providing retail space on the ground level and office suites on the 1st to 3rd floors, whilst warehouses and Logistics hubs will complement the park as a whole. This project can create up to 120 jobs during the construction phase and 100 jobs when fully operational. SME's will be catered for via exceptional and affordable rentals to setup their businesses in the multiple light industrial warehouses.

Lastly, the proposed development is in line with the recently launched Government's Harambee Prosperity Plan (HPP). Part of the HPP is to establish food banks across the country toward poverty eradication. This cold storage will be fit to form part of this food bank system on a lease basis.

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 Biophysical

- **Climate conditions**

Northern Central is defined as a semi-arid to sub-humid climate, with hot summers and warm winters. The average annual rainfall in Ondangwa is about 470 mm occurring between October and April, with the heaviest falls from January to March and the peak in February. The soils are sandy, allowing high infiltration and the average annual evaporation is about 2800 mm. Consequently, there is no flow in the drainage channels during the dry season. The rainfall pattern is highly variable in amount and distribution. Temperatures are also cooler and more moderate, with approximate seasonal variations of between 10 and 30 °C (Kangombe, 2010).

Since the start of 2009, the northern regions, particularly those traversed by the Cuvelai basins which are Omusati, Ohangwena, Oshana and Oshikoto have experienced incessant torrential rains and high water flows arising from Angola causing severe flooding.

- **Topography**

The town is situated on the eastern edge of the Cuvelai system which is characteristics by shallow drainage channels called “Oshana” with pockets or islands of higher lying land in between. The oshanas have a general north-south alignment and flow occurs as a result of water passing over shallow grassed “natural spillways” between the oshanas.

The topography of the Ondangwa town is a gently sloping plain with a gradient of about 1:2 500. The oshanas periodically carry water after heavy local rains or good falls in highland areas to the north in Angola. This flows originating in Angola very seldom reaches Ondangwa, and flow that does occur through the town normally originates from local rainfall.

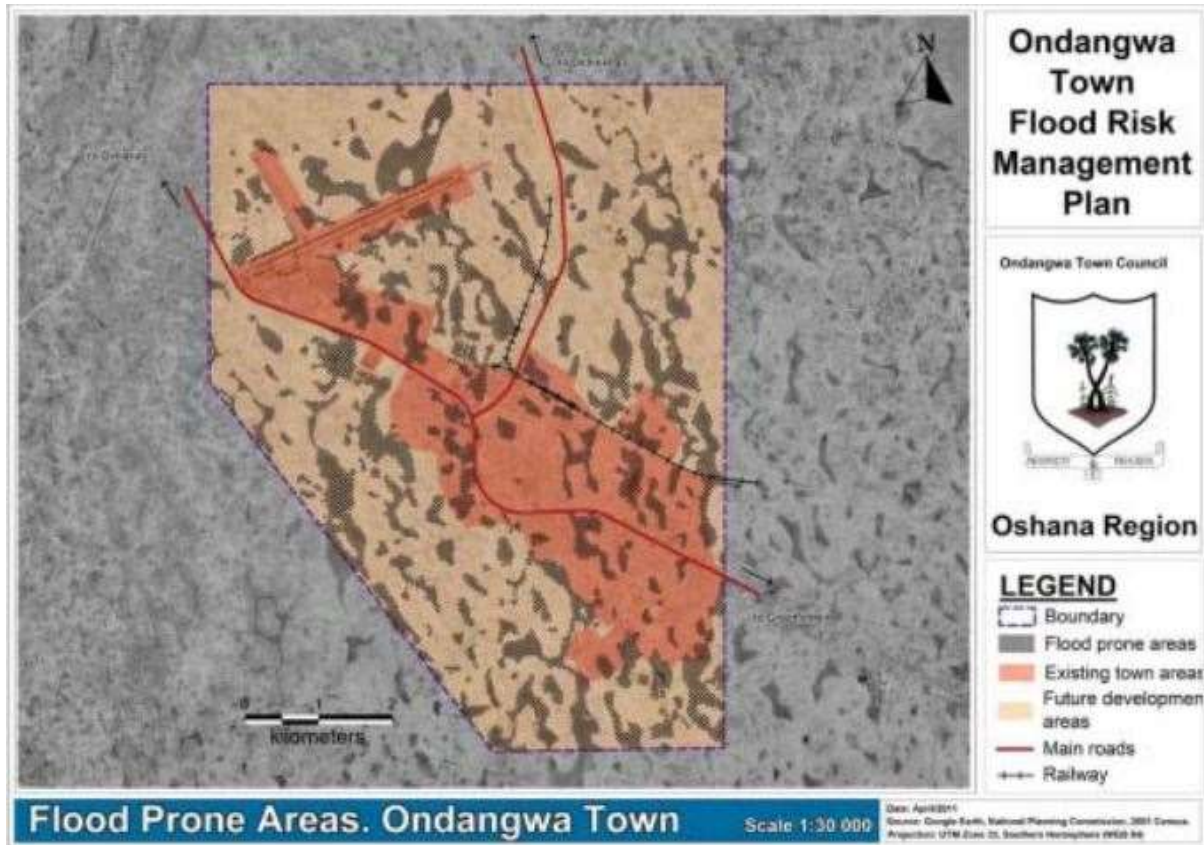


Figure 8; Flood risk assessment

In Ondangwa, floods are mainly provoked by heavy rains and the lack of storm water drainage system. Floods in town affect low lying areas within town boundaries and accessibility to surrounding areas. The continued growth of the town means that the pressure for suitable land in the town increased to a point where many people settled in lower lying areas on the edges of the higher lying land portions and sometimes even within oshana.

- **Soil and Geology**

The main soils that occur in these regions are alluvial and other weakly developed low-lying soils. Dark alluvial sand and loam soil are also found in the northern regions. The soil is dominated by deep Kalahari and Namib sand that mostly occur in the formation of sands and other sedimentary materials, while the clay sodic sands dominate in the oshana. The soils are sandy, allowing high infiltration and the average annual evaporation is about 2 800 mm. Consequently, there is no flow in the drainage channels during the dry season.

The soil type classification is termed to be favourable for crop cultivation and plant growth in general, and this is determined by its physical properties to the nature of water retention, lower salinity and high nutrient level. Soils in the Cuvelai basin are generally nutrient-poor and are often saline. The soil also comprises of mosaic soil type such as clay and average salty clay. This determines that the main soil dominance is characterized by its definition on consistency, colour and structure.

- **Hydrology and Hydrogeology**

According to Aurecon, (2013), the topography of the Ondangwa area is a gently sloping plain with a gradient of about 1:2 500. There are two main drainage routes through the town, the one through the large oshana to the west of the road to Oshikango, and the other through the line of oshanas to the east of the railway station. These two drainage paths lead through a series of smaller oshanas and eventually combine to flow into the oshana to the west of the military base on the south side of the town. From there, the drainage path leads into another large oshana which runs along the western side of the road between Ondangwa and Uukwiyu Uushona and leads the water away, well to the south of Ondangwa.

The ground water in the area of Ondangwa occurs in varying quantities over almost the entire region. In some areas artesian springs occur, while pans and sand deposits along several river courses serve as ideal reservoirs for usable water. In certain areas the withdrawal of groundwater is controlled in order to prevent over-exploitation and a further lowering of the groundwater table. Often the groundwater is virtually unusable owing to the presence of dissolved solids derived from the rocks in which the water is stored. Specific concentrations of fluorides, nitrates and sulphates further affect the usability of the water.

- **Flora and Fauna**

The site consist of an open grassland locally known as “oshana” which consist mainly of species of grasses and herbs and dotted with few indigenous trees. The local occurring fauna is mainly domestic animals, birds and small ground burrowing animals.

Table 2: List of flora and fauna observed or expected at the site

English/Scientific name	Local name	Conservation/status
1. Flora		
<i>Jackal berry/ Diospyros mespiliformis</i>	<i>Omwandi</i>	<i>Protected</i>
<i>Makalani/Palm</i>	<i>Iiyale/Omulunga</i>	<i>None</i>
<i>Lilies/ Nymphaeaceae</i>	<i>Omavo</i>	
<i>Eragrostis echionchlodea</i>		
<i>Digitaria spp</i>		
<i>Schmidtia species</i>		
2. Fauna		
<i>Goats</i>	<i>Iikombo</i>	
<i>Sheep</i>	<i>Eenzi</i>	
<i>Cattle</i>	<i>Oongombe</i>	
<i>Donkey</i>	<i>Oondongi</i>	
<i>Pig</i>	<i>Oshingulu</i>	
<i>Birds(various)</i>	<i>Uudhila (womaludhi)</i>	



Figure 9: Flora and Fauna of the site

- **Public Open Spaces**

Most of the areas zoned as “Public Open Space” in Ondangwa are those found in the flat low-lying area. These areas also serve as important catchment for both rain water and flood water and are connected to the main flood plains “Oshanas” which are part of the Cuvelai river basin. According to the Town Planning Scheme “No development of structures” are allowed, hence request for consent use must be approved by the town council.

- **Environmental Sensitivity Evaluation**

- a) Hydrology

The site elevation is generally low (<100m.a.s.l) with water depression area and serves as a catchment area during rainy season. The site is also inter-linked to the flood water plains (Oshana) of the Cuvelai Basin and thus receive flood water during flood seasons. Due to this hydrological feature, the site is considered an environmental sensitive site. **The proponent has appointed a consulting Engineer (Windhoek Consulting Engineer) to determine the flood risk and storm water management plan. This analysis has been completed and a report has been submitted to Ondangwa Town Council (also attached to this report).**



Figure 10: How the site looks during rainy season

- b) Protected Species

The site contains protected tree species such as Jackal berry (*Diospyros mespiliformis*), a large deciduous tree found mostly in the savannas of Africa. It is considered a traditional food plant in Namibia and other African countries, hence its fruit has potential to improve nutrition, boost food security, and foster rural development and support sustainable land care. **This species must not be removed (unless unavoidable) but rather be incorporated in the design and forms part of the**



Figure 11: Protected Tree Specie

3.2 Socio-economic profile of Ondangwa

- **Demographic issues**

Ondangwa town is located right in the eastern boundary of the Oshana region, bordering the Oshikoto region. It is an important urban center with easy accessibility to Oshakati town, to the Helao Nafidi town, on the Angolan border where high trade and commercial activities are taking place and to the capital city, Windhoek, through the B1 road. Many local authorities for the Oshana and Oshikoto regions are located in the town, e.g. the Ministry of Education. Since independence, the government has settled up an industry in the north, to create jobs and improve the poor infrastructure. The town has a population of about 23000 residents according to the Namibia Population and Housing Census of 2011. The town shares an airport with Oshakati. Ondangwa is linked to Oshakati and Oshikango by a tarred road.

- **Water Sources**

There is a major pipeline that brings the water from Oshakati (NAMWATER), serving most of the urban area with a reticulated network, except in some informal settlements, where the service is through communal taps. Due to the fact that the town is located on some low-lying areas, the storm water flows into town and in most cases forms a pool due to insufficient drainage system.

- **Bulk service supply**

- Sewerage & Drainage: The existing system serves most of the planned areas through a reticulated network, pump stations and oxidation ponds. The informal settlements are not served by sewerage; the solutions are through septic tanks, pit latrines and others. No drainage system is in place, only partial solutions especially along the main road.
- Communication & Electricity: The town has accessibility to selected services/facilities. These include television, radio, newspaper, telephone and computer. Most of the town's electricity is served via NORED, although some areas within the existing informal settlements are not yet served.

- **Economic development**

The town has good infrastructure necessary for economic development. Ondangwa features shopping centers, a large open market, and several tourism facilities. The town also houses shopping malls with well-known retail brands, such as Shoprite, Clicks, Ackermann's, etc. This brings numerous people from nearby villages and towns to come for shopping and other services in town. There are also many other local brands operating, offering good shopping ambiance, especially craft, baskets. Rössing Foundation, Kayec and Cosdec are the three vocational skills schools training young people in building maintenance, sewing, cooking, and Internet Technology. Ondangwa Town also welcomes numerous partnerships for developmental projects such as land servicing and other ventures.

- **Social development**

The town has a public hospital, public and private clinics, private doctors (general practitioner's), dentists, and pharmacies. Most of the health facilities in town operate during the day and they also cater for the people living in close proximity to the town. Ondangwa has public and private educational facilities which cater for primary and secondary learners. Some schools have accommodation for learners residing out of town. There are also a few institutions of higher learning which are accredited by Namibia Qualification Authority.

- **Land use**

Ondangwa town has a dominance of the informal residential and vacant land uses within the existing town boundaries, with the businesses located mostly along the B1 road. Most of the houses are located in informal settlements disseminated throughout the town area as well as in planned land.

The proposed area is partially occupied by a mixture of informal residential settlements. The vacant portion is an open grazing area and would often get flooded during the rainy seasons. The informal settlements consists of traditional homesteads and crop fields and majority of the inhabitants live from subsistence farming. There is a few access roads within the proposed area but with no proper urban infrastructure.

4. APPROACH TO THE ENVIRONMENTAL SCOPING STUDY

The environmental impact assessment study was conducted in line with the Namibia's Environmental Management Act of 2007 its Guidelines and Regulations (GN No. 30 February 2012). Various methods were used during the scoping process to collect baseline data and identified key issues about the project and the affected environment as follow:

- Site visits;
- Legal and policy review;
- Gleaning over existing information pertaining to similar developments and issues;
- Discussions, meetings and site visits with Authorities;
- Opinions and concerns raised by interested and affected parties;
- Specialist studies and qualified opinions; and
- Professional judgment.

4.1 Baseline study

a) Site Visits

Several sites visits were conducted during the month of August to collect biophysical data.

- Flora and Fauna
- Roads and traffic
- Land use and adjacent areas
- Topographic features, etc.

b) Review of Policy and Relevant Documents/Literature

The following Literatures were reviewed:

- Flood risk assessment of the northern areas, 2010;
- Flood Risk Analysis and Storm Water Management for the proposed development site;
- Ondangwa Town Planning Scheme (2013) as amended;
- Ondangwa Storm Water Management, 2013 (By. Aurecon); and
- Several applicable National Legislations (see page 28).

c) Inputs from Public Consultation

The study also benefited from inputs from Interested and Affected Parties and Stakeholders (explained in the next chapter).

4.2 Public participation process

Public Participation Process forms an integral part of the EIA study. Potential Interested and Affected Parties (I&AP) were invited to register and forward concerns / comments to the EAP in order to ensure an equitable and effective participation.

4.2.1 Identification of interested and affected parties

The identified IAPs includes; neighboring households, businesses and general public while the relevant stakeholders and authorities includes; the Town Council, Neighboring properties, Government Ministries. A contact list of these I&APs was established with their contact details (*See appendix C*). The adjacent property owners were directly identified as I&APs and were served with invitation letters.

4.2.2 Public notifications

The EIA study was advertised in two separate local Newspapers; *NEW ERA on the 17 August 2017* and *The Kundana newspaper for 25th August 2017* (*See appendix B*). Several public notices were also displayed at the Town Council notice board and the Ondangwa Town Hall gate. The public advertisements provided brief information about the proposed project and the EIA process, as well as an invitation for registration and also an invitation to the public meeting that was held on the 24th August 2017.

4.2.3 Soliciting of Inputs from relevant stakeholders

Different stakeholders which includes; Ministry of Agriculture, Water and Forestry, Oshana Regional Office, Office of the Governor: Oshana Region, NamWater, NORED, Roads Authority were served with official notification letters and also invited to the public meeting.

4.2.4 Background Information Document (BID)

The background information document was compiled in English and distributed to all registered I&APs and stakeholders. The BID provided a brief introduction to the proposed project and contains background information on the project, proponents, consultants, scoping process and the public consultation process to be followed.

4.3 Summary of issues from public participation

The following concerns and comments were raised during public consultations (Public meeting, email, or telephone conversations with I&APs and stakeholders.

a). Concerns/comments

- The proponent must consider the impact on water as poor planning might cause flooding of neighboring properties
- The water channel to be provided must be long enough and with enough capacity to channel the flow of water coming from town side
- There is a Trunk Road (B1) proposed within the close proximity of the proposed development, access from this road is not allowed, hence the proponent must make alternative plan to provide access from C38 Road.
- The proponent must maintain the cross bridge that we currently use to cross the water channel
- The developer together with the Town Planner should convene a site meeting to confirm the boundaries of the proposed development site
- The indigenous trees that are at the site must not be cut down, but integrated in the design

NB!! There were no specific objection received during the normal consultation period

5. LEGAL REQUIREMENTS

The following is a brief overview of all pertinent legal acts, bills, laws, policies and standards regarding the environment which were considered while conducting the EIA for the proposed project.

Table 3: Applicable laws

LEGISLATION	PROVISION	PROJECT IMPLICATION
Constitution of the Republic of Namibia (1990)	The articles 91(c) and 95(i) commits the state to actively promote and sustain environmental welfare of the nation by formulating and institutionalizing policies to accomplish the sustainable objectives which include: <ul style="list-style-type: none"> - Guarding against overutilization of biological natural resources, - Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity. 	Through implementation of the environment management plan, the proponent shall be advocating for sound environmental management as set out in the Constitution.
Environmental Management Act No. 07 of 2007	The purpose of this Act is to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; to provide for a process of assessment and control of projects which may have significant effects on the environment; and to provide for incidental matters. The Act gives legislative effect to the Environmental Impact Assessment Policy. Moreover, the act also provides procedure for adequate public participation during the environmental assessment process for the interested and affected parties to voice and register their opinions and concern about the proposed project.	Rezoning of “POS” and “Construction activities” are one of the listed activities hence this EIA study.
Water Resources Management Act 2004	This Act provides provision for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. In addition the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent.	The effluent of human waste under this framework is the main focus; the use of mobile toilets during construction phase should be properly positioned while placement of permanent ablution facilities for the new development must be of standard to avoid any seepage into existing water course, infiltration into soil and etc.
Draft Urban and Regional Planning Bill and Regulations	It is envisaged that the current system of land use planning and development controlled in Namibia will be comprehensively reformed by the enactment of the	The project is located within the town lands and rezoning from one

	draft Urban and Regional Planning Bill and regulation. The Bill provides for the establishment of national, regional and urban structure plans, and the development of zoning schemes. It also deals with a variety of related land use control issues such as the subdivision and consolidation of land and the establishment and extension of urban areas.	zone to the other shall be done in accordance with this Bill
Pollution Control and Waste Management Bill	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. This Bill will license discharge into watercourses and emissions into the air.	All activities shall be conducted within the framework of this Bill
National Heritage Act 27 of 2004	The Act provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.	Any material of cultural, heritage or archaeological importance shall be reported in accordance with this Act
Labour Act (No 11 of 2007)	135 (f): “the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery in connection with the structure of such buildings of otherwise in order to prevent or extinguish fires, and to ensure the safety in the event of fire, of persons in such building;” (Ministry of Labour and Employment Creation)	Contractors, Sub-contractor shall be guided by this Act when recruiting or handling employment related issues
Noise Control Regulations (labour Act)	It is essential to ensure that before any development project is approved and undertaken, an assessment or evaluation of expected noise level is done.	Noise generation should be minimized to the satisfactory of neighboring residents
Public and Environmental Health, 2015	Section 119 of this Act prohibits the existence of a nuisance on any land owned or occupied by the proponent. The term nuisance is important for the purpose of this EIA, as it is specified, where relevant in Section 122 as follows: any dwelling or premises which is or are of such construction as to be injurious or dangerous to health or which is or are liable to favour the spread of any infectious disease;	The proponent must ensure to comply with this Act during the construction and Operation phases

	<p>any dung pit, slop tank, ash pit or manure heap so foul or in such a state or so constructed as to be offensive or to be injurious or dangerous to health;</p> <p>any area of land kept or permitted to remain in such a state as to be offensive, or liable to cause any infectious, communicable or preventable disease or injury or danger to health; or</p> <p>Any other condition whatever which is offensive, injurious or dangerous to health.</p> <p>Furthermore in terms of Section 8 of the Public Health Proclamation 16 of 1936, where a local authority is of the opinion that a nuisance is seriously offensive or a serious menace to health, it may serve a notice on the owner or occupant of the nuisance to immediately remove the nuisance. Failure to abide by this provision is an offence. Of relevance is the location of the mine, and the fact that mining activities will overlap with the activities of the community currently on the land.</p>	
National Forestry Act, No. 12 of 2001	<p>(Proclamation No.1 of 1923), Preservation of Trees and Forests Ordinance, 1952 (Ordinance No. 37 of 1952) and the Forest Act, 1968 (Act No. 72 of 1968) and to deal with incidental matters</p> <p>Deforestation of natural forests has important implications for soil erosion, biodiversity loss and global warming. This Forest Act 12 of 2001 requires that tree species and any vegetation within 100m from a watercourse may not be removed without a permit (S22 (1)).</p> <p>It also prohibits the removal of and transport of various protected plant species. The Act further requires any project activity that will result in clearance of certain Forests to obtain a Forest Permit beforehand.</p>	Species protected under this Act must be conserved as per requirements.
Atmospheric Pollution Prevention Ordinance no. 11 of 1976	<p>This Ordinance generally provides for the prevention of the pollution of the atmosphere and for matters incidental thereto. The Ordinance deals with administrative appointments and their functions; the control of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicle emissions; and general provisions.</p> <p>Part IV of this ordinance deals with dust control. The</p>	<p>During construction, it's expected that some air pollution will occur through dust generation. The proponent must prevent excessive pollution of air.</p> <p>Air pollution during operation could also occur as a result of fumes from operation activities, it</p>

	<p>Ordinance is clear in requiring that any person carrying out an industrial process which is liable to cause a nuisance to persons residing in the vicinity or to cause dust pollution to the atmosphere, shall take the prescribed steps or, where no steps have been prescribed, to adopt the best practicable means for preventing such dust from becoming dispersed and causing a nuisance.</p> <p>Of applicability to the envisaged project, is dust generated by vehicles or equipment as well as dust generated during mining. The risk of dust generation is high at the envisaged site. This deals with air pollution as it affects occupational health and safety, and no consideration is given to the natural environment.</p>	<p>is the responsibility of the proponent to control excessive air pollution and comply with the ordinance.</p>
--	--	---

This is not an exhaust list, thus the proponent should adhere to all applicable national laws when implementing any activity of the proposed development.

6. ANTICIPATED PROJECT IMPACTS

This section provides the reasonable anticipated environmental impacts (short-term and long-term) associated with construction and operation of the proposed development. Other considerations includes possible conflicts between the proposed project and any other land-use plans policies, energy requirements, conservation measures. Various mitigation measures have also been developed and are presented herein and also in the Environmental and Social Management Plan (ESMP) here attached.

6.1 Expected Environmental Impacts

6.1.1 Planning and Design Phase

The first step in avoiding and preventing any possible negative impacts associated with the project should start with the planning and designing phase. The following issues should be considered at the planning and design phase:

- *Placement of facilities*

Placing of structures such as toilets, store rooms next to the drainage lines will create a dangerous situation. Hence, spillage or leakage from these facilities can easily find its way to the riverine and contaminate the natural water system.

Improper placement of facilities could cause serious impacts such as;

- *Pollution of surface and groundwater*
- *Impact on the natural drainage*
- *Traffic impacts*

The characteristics and location of sanitary facilities has a significant impact on the hygiene and ultimately the health of students. For example, odors emitted from the facilities can be an intolerable nuisance on the users. It is therefore preferable that the toilets be at a distance from the storerooms and warehouses and should be well ventilated. The building design should incorporate the Green Building Council codes and standards to ensure safety of the users and reduce resources use i.e. water, energy etc.

Lastly; the design should make provision for the storm water channel to drain water away from the site as well as allow for free flow of water to avoid flooding of neighbouring properties. The design should also make provision for dropping, picking zones and designated parking areas to avoid traffic congestion and reduce accidents on the road (this has already been considered).

- *Visual and aesthetic impacts*

The design of the business park fit in with the surrounding and should enhance visual appearance. The design should make provision for landscape in and around the business park to promote greenery and enhance visual image of the site.

6.1.2 Impacts during Construction

The main issues during construction are relate to impact on vegetation, soil, drainage and nuisances resulting from construction activities. Most of these are temporary and can be significantly mitigated through proper planning and best management practices.

- *Impact on Biodiversity*

Vegetation clearance during site preparation is inevitable. This could lead to habitat destruction and land degradation. Small animals will lose their habitants and also at risk of being killed by construction activities.

Mitigation: The impact could be lessened in many ways such as; only vegetation that are affected by the development should be cleared. Protected Tree species found at the site should be marked and incorporated in the development as part of the landscaping/gardening. No animal must be trapped, killed for any purpose of whatsoever.

- *Impact on soil*

Removal and Compaction of soil during constructions are serious concerns. This impact could be more serous during rainy season when the soil is wet and highly vulnerable which could lead to other impacts such as erosion or sedimentation etc. Other impact on soil is contamination from spillage i.e. oil, grease etc.

Mitigation: In order to reduce soil compaction, limit the number of heavy implements at the site for each purpose i.e. only one bulldozer and if possible land clearance should be done at least during dry season. In case of any soil erosion, erect some erosion barriers and avoid blocking of drainage lines to avoid soil erosion by water.

- *Impact on natural watercourses (surface and groundwater)*

Possible pollution of the water sources both surface and groundwater from leakages, spill or direct discharge of pollutant in the watercourses.

Mitigation: No direct discharge of pollution (waste water or solid waste) into the riverbed. Do not park vehicles or implements with leaking oils next to the riverbeds. In case of spillage, the contaminated soil must be properly and timely rehabilitated.

- *Worker's Sanitation*

Workers' sanitation on site poses a serious impact on the neighborhood. Provision of sanitary facilities onsite will be made available as it is considered critical to avoid these health hazards on the surrounding residents. Hiring foreign workers without assuring their health clearance may also expose the local community beyond the project's neighborhood to infectious diseases.

Mitigation:

Hire as many local people as possible in order to reduce the need for temporary housing. The construction contractor and project Engineer will ensure compliance that site workers have the necessary health certificates.

- *Traffic Impacts*

The negative impact resulting from construction activities is mainly due to movement of vehicles in and out of the site. Therefore, normal traffic movement, especially in the B1 Road (Ondangwa-Oshakati) might be disrupted.

Mitigation: Avoid peak hours (06h00-08h00) and 16:30-18:30. Erect construction signature at construction site. Vehicles must be driven by authorized drivers only and stick to speed limits.

- *Noise and vibration*

Noise pollution and vibration is a negative impact that will surely result from operating construction equipment such as cranes, trucks, drilling, etc. The major negative impact that could result is the noise and vibration generated during night hours or midday. This impact will disturb residents in the neighborhood.

Mitigation: This impact can be mitigated by adhering to the Noise Instructions and will only be temporary. Construction activities must be limited to normal working hours and avoid operating during odd hours.

- *Visual impacts*

Visual intrusion of construction activities (untidy building sites, denuded areas, material stockpiles, dust etc.). Visual impact due to a change in the visual character from natural open space to residential.

Mitigation: All construction materials should be stored away in store rooms. The construction site must be properly fenced off and all rubbles must be put away from the site as soon as possible.

- *Waste generation*

Generation of building rubble, spoil material, domestic waste, hazardous waste and liquid waste during construction. Waste generated from construction activities will have a negative impact on surrounding areas if not disposed of properly and regularly. In addition, the process of transporting all construction debris may also disturb neighbouring areas and constitute a nuisance to residents around the site and is not aesthetically accepted

Mitigation: All waste generated at the site must be gathered and disposed to waste disposal sites.

- *Pressure on water supply*

Construction activities will increase pressure on the already limited fresh water in the town.

Mitigation: Construction plan must be prepared and approved by the Town Council before commencement of construction. The construction projected must be divided into phases to reduce the pressure on water availability. Recycle water for construction activities i.e. dust suppression and if possible consider other source of water for construction.

- *Air pollution*

Excavation and construction-related activities will generate dust that will have a negative impact on surrounding areas or even beyond. Moreover trucks transporting construction material will cause dust pollution to streets they would be passing through unless they are properly covered, and while transporting construction residues to dumping sites, which is when flying dust is expected to take place. However, the worst case of dust pollution would be during summer, when wind occurs. Other atmospheric pollution is in the form of dust and fumes released from vehicles and construction equipment.

Mitigation: Ensure dust control measures such as sprinkler all haulage roads and construction areas with recycled water. Reduce movement of heavy implements and only drive on designated access roads.

- *Occupational Safety and Health*

Safety and health risks are expected during the construction period. This is particularly true in relation to the construction workers who will be present at the site. Workers will be exposed to dust, high noise levels, sun exposure (sun stroke) and dehydration during summer months, and other potential hazards associated with the use of heavy construction machinery.

Mitigation: All employees must be provided with Personal Protective Equipment (PPE). Employees must also be trained on nature of their job as well as on First Aid. Ensure First Aid kit is available at the construction site all times.

- *Impact on cultural or heritage*

Construction activities could unearth certain cultural or heritage materials which if not properly addressed will result in the damages of such materials. No items of cultural or heritage importance are known to occur at the proposed site.

- *Employment opportunity*

A positive impact would arise regarding employment opportunities for the local community upon proceeding with the project. However, this is true during operation more than during construction, since foreign workers are usually assigned for construction works. Moreover, families of workers would predominately benefit from work generated during construction.

6.1.3 Operational Phase

The proposed development will give rise to some biophysical and socio-economic impacts (both positive and negative) during the operation phase such as;

- *Impact on Groundwater*

Given the fact that area is sitting on a low-laying area, the groundwater depth is thus shallow and can be easily polluted from certain operations. In order to avoid this to happen, the proponent must ensure that all leakages are fixed and no pollutants are directly discharged in the soil. Only environmental friendly detergents must be used for cleaning and no hazardous or dangerous goods must be stored at the site.

- *Motorized traffic and access during operation*

During the operational phase there will be an increase in traffic from the existing main Road; the C46 Road as a result of delivery vehicles. The access road to be provided must be of the required standard and should be sufficient to accommodate the anticipated traffic flows of delivery and other vehicle using the business park.

- *Noise*

Operation activities such as vehicle, packing, maintenance of facilities could generate noise which could be a nuisance to the neighboring properties. This could be avoided by limiting operation of the facilities to day time and avoid odd hours.

- *Increase pressure on resources*

It is expected that the proposed development will increase the local demand on resources such as Water & Electricity as well as municipal services such as sewer, solid waste, road maintenance, traffic control etc. The proponent should explore the use of renewable energy sources and install rainwater harvesting to reduce pressure on electricity and water. The proposed plan should be in accordance with the OTPS and should be approved by the Town council before implementation.

- *Public Health and Safety Issues*

An essential requirement for any building is to provide a safe and healthy environment for the users and all workers at the facilities.

- *Employment creation*

This project can create up to 120 jobs during the construction phase and 100 jobs when fully operational.

- *Economic benefits*

SME's will be catered for via exceptional and affordable rentals to setup their businesses in the multiple light industrial warehouses. The proposed development will be fit to form part of the food bank system proposed by the Government under the HPP.

7. ASSESSMENT OF IDENTIFIED IMPACTS

7.1 Risk Assessment and Rating

The scoping process has identified potential project impacts during its planning and operation phase and examined each of these issue. In assessing the impact of the proposed development, four rating scales were considered. Each issue identified was evaluated in terms of the most important parameter applicable to environmental management. These include the *extent, intensity, probability and significance* of the possible impact on the environment. The rating scales used are as follows;

Table 4: Significance rating

CRITERIA	DESCRPTION			
EXTENT	National (4) The whole country	Regional (3) Oshana region and neighbouring regions	Local (2) Within a radius of 2 km of the proposed site	Site (1) Within the proposed site
DURATION	Permanent (4) Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	Long-term (3) The impact will continue/last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.	Medium-term (2) The impact will last for the period of the construction phase, where after it will be entirely negated	Short-term (1) The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
INTENSITY	Very High (4) Natural, cultural and social functions and processes are altered to extent that they permanently cease	High (3) Natural, cultural and social functions and processes are altered to extent that they temporarily cease	Moderate (2) Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	Low (1) Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
PROBABILITY	Definite (4) Impact will certainly occur	Highly Probable (3) Most likely that the impact will occur	Possible (2) The impact may occur	Improbable (1) Likelihood of the impact materialising is very low

SIGNIFICANCE	Is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.
---------------------	---

Table 5: Color coding meaning

Low impact	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact	Mitigation is possible with additional design and construction inputs.
High impact	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a “very high impact” is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.	

7.2 Planning and Design

Table 6: Risk Assessment: Planning and Design Phase

ASPECT	POTENTIAL IMPACTS	RATING (Before mitigation)				
Planning and Design		Extent	Duration	Intensity	Probability	Significance
Bio-physical	<ul style="list-style-type: none"> Poor Placement of facilities could result into many environmental and socio-economic impacts 	Local	Long-term	Medium	Probable	Significant
	<ul style="list-style-type: none"> Lack of provision of water channel could result into flooding of neighboring properties 	Local	Permanent	High	Low	Significant
Socio-economic	<ul style="list-style-type: none"> Insufficient access road could cause serious traffic impacts 	Local	Permanent	Low	Low	Significant
	<ul style="list-style-type: none"> Poor Building design could cause visual intrusion and reduce aesthetic value 	Site	Long-term	Medium	Probable	Significant
	<ul style="list-style-type: none"> 					
	<ul style="list-style-type: none"> 					
	<ul style="list-style-type: none"> 					

7.3 Construction Phase

Table 7: Risk Assessment: Construction Phase

ASPECT	POTENTIAL IMPACTS	RATINGS (Before mitigation)				
		Extent	Duration	Intensity	Probability	Significance
Bio-physical	• Vegetation clearance and habitat distraction	Local	Long-term	Medium	Probable	Significant
	• Impact Soil (compaction, pollution, erosion etc).	Site	Short-term	Moderate	Probable	Significant
	• Impact on water (surface and groundwater)	Local	Long-term	Low	Probable	Significant
	• Air Pollution	Site	Short-term	Low	Probable	Insignificant
Socio-economic	• Waste generation	Site	Short-term	Low	Probable	insignificant
	• Traffic impacts (congestion)	Local	Short-term	Low	Probable	Insignificant
	• Noise and vibration (nuisance to residents)	Site	Short-term	Low	Improbable	Insignificant
	• Visual and aesthetic impacts	Site	Short-term	Low	Improbable	Insignificant
	• Worker’s sanitation	Site	Short-term	Low	Improbable	Insignificant
	• Occupational health and safety	Site	Short-term	Low	Improbable	Insignificant
	• Increase demand on water	Local	Medium term	Medium	Probable	Significant

	<ul style="list-style-type: none"> Heritage impact 	Site	Short-term	Low	Improbable	Insignificant
	<ul style="list-style-type: none"> Employment creation 	Local	Short to Long-term	Medium (+ve)	Probable	Significant

The overall ratings of the environmental risks during construction phase is generally low with few significant impacts. This means construction activities can be conducted with very limited or negligible impacts expected provided that mitigation measures are in place.

7.4 Operational Phase

Table 8: Risk Assessment: Operation Phase

ASPECT	POTENTIAL IMPACTS	RATING				
		Extent	Duration	Intensity	Probability	Significance
Bio-physical	<ul style="list-style-type: none"> Pollution of groundwater due from sewage pipes, spillage or leakage 	Local	Long-term	Medium	Improbable (Impact eliminated by planning)	Insignificant
	<ul style="list-style-type: none"> Impact on surface water and drainage 	Local	Long-term	Medium	Improbable (Impact reduced by design)	Insignificant
	<ul style="list-style-type: none"> Waste generation 	Site	Short-term	Low	Improbable	Insignificant
Socio-economic	<ul style="list-style-type: none"> Traffic impacts 	Local	Long-term	Low	Probable	Significant
	<ul style="list-style-type: none"> Noise and vibration 	Site	Short-term	Low	Improbable	Insignificant
	<ul style="list-style-type: none"> Increase demand and pressure on resources (water and electricity) 	Local	Long-term	Low	Probable	Significant
	<ul style="list-style-type: none"> Public Health and Safety 	Site	Short-term	Low	Improbable	Insignificant
	<ul style="list-style-type: none"> Employment 	Local	High	High	High Probable	Significant

The overall rating of environmental risks at Operation phase is expected to be very low, hence most of the risks have been removed during previous phase.

8. CONCLUSION AND RECOMMEDATIONS

8.1 Conclusions

The objective of the EIA study was to define the range of the impact assessment and determine the need to conduct any specialist study. It is believed that this objective has been achieved and adequately documented in the Report. All possible environment aspects have been adequately assessed and necessary control measures have been formulated to meet statutory requirements thus implementing this project will have little appreciable negative impacts. It is further assumed that;

- All information provided by the proponent, I&APs, stakeholders is deemed valid and correct at the time it was provided. The information received are also considered sufficient and no additional specialist studies is required.
- Since there were no objections received, the project is well received by the potential IAPs, Stakeholders and relevant authorities considering their inputs which are incorporated in this report.
- The proposed Flood Risk Assessment and Storm Water Plan should be approved by the Ondangwa Town Council and any changes should be communicated accordingly
- The access road for the proposed development should be connected to the C46 Road as recommended by Roads Authority and any changes should be communicated to RA.
- The proponent should conduct a Geotechnical analysis to ensure the soil capability is compatible to the proposed structure to ensure stability of the building.
- The proponent and all contractors should adherence to the ESMP here attached.

8.2 EAP recommendations

The proposed development will not result in unacceptable cumulative impacts. Furthermore, no undesirable or unmanageable environmental impacts were identified which suggest that the activity and the site alternatives are unsuitable or pose serious risks to the local environment or residents.

It is therefore recommended that this EIA Report be accepted and that the Environmental Commissioner consider the issuing an Environmental Clearance Certificate to authorize the; **Rezoning of portion A/4185, from Public Open Space to Business and Construction of a multi-tenant commercial and Logistics plaza at Ondangwa extension 18.**

.....
Joseph Kondja Amushila
M.Sc. Environmental Management

9. REFERENCES

- Cronje G, et al Ondangwa Storm Water Management. (2013). Aurecon.
- GRN. (2013). 2011 Population and Housing Census Main Report. Windhoek: National Statistics Agency
- GRN. (2014). 2011 Housing and Population Census Regional Profile, Oshana Region. Windhoek: Namibia Statistics Agency.
- Kangombe F, (2010). The vegetation of Omusati and Oshana regions, central north Namibia (Research Thesis for M.Sc. Plant Science). University of Pretoria
- Mendelsohn J, Jarvis A, Roberts C, Robertson T. (2002). Atlas of Namibia. David Philip Publishers, Cape Town.
- Republic of Namibia: Ministry of Environment and Tourism, (2012). Environmental Impact Assessment Regulations, GG 4878, GN 29, Windhoek: MET.
- Tamayo V, et al, Flood Risk Management Plan, (2011). Ministry of Regional, Local Government, Housing and Rural Development

10. APPENDICES

Appendix A: EAP CV

Appendix B: Public Notifications

Appendix C: List of I&APs consulted

Appendix D: Attendance Register for the Public Meeting

Appendix E: Issue Response Report

Appendix F: Business Proposal

Appendix G: ESMP

Appendix A: EAP CV

JOSEPH KONDJA AMUSHILA

(M.Sc. Environmental Management, B. Hons Agriculture, B. Degree & Nat. Dip in Agriculture)

P.O. Box 55320, Rocky Crest, Windhoek, Namibia

Cell: 081-3380114

jkondja@gmail.com

PERSONAL PROFILE

Mr. Joseph Is a young, energetic and result-driven professional with over seven years combined working experience in natural resource, agribusiness and environmental management. I hold a Master Degree in Environmental Management and several other qualifications in Agriculture.

PERSONAL DETAILS:

Surname : Joseph. Kondja Amushila
ID : 87050501034
Nationality : Namibian
Driving Licence : Code BE (500100007FDH)
Languages : English, Oshindonga and Afrikaans

EDUCATION AND TRAININGS

2011-2012 **MASTER DEGREE IN ENVIRONMENTAL MANAGEMENT**

2010 **BACHELOR (HONORS) IN AGRICULTURAL MANAGEMENT**, School of Natural Resource Management, Polytechnic of Namibia

2009-2010 **BACHELOR DEGREE IN AGRICULTURAL MANAGEMENT**, School of Natural Resource Management, Polytechnic of Namibia

2006-2008 **NATIONAL DIPLOMAS IN AGRICULTURE**, School of Agriculture and Natural Resources, Ogongo Campus, University of Namibia

ENVIRONMENTAL EXPERIENCE

Over six (6) years' experience in environmental management consultancy, mainly in Environmental Impact Assessment, Specialist studies, EMP, and SEAs,
Completed over 20 projects.

PREVIOUS STUDIES (MOST RECENT)

- 2016/17
- EIA for the proposed three townships and a cemetery in Otjiwarongo
 - EIA for the existing Okahao oxidation ponds and solid waste dumpsite
 - EIA for the proposed establishment of five new extensions in Outapi
 - EIA for the proposed establishment of two extensions in Omuthiya
 - EIA and EMP for the proposed extension 6 in Outjo
 - Scoping Assessment and EMP for the Okapi Campsite
 - SEA for the Ministry of land Reform's PCLD at large
 - EMP for the operation of Mowani Camp, Kunene Region
- 2015:
- EIA for the closure and Consolidation of the street in Rundu Extension 4: on behalf of the Stubenrauch Planning Consultants
 - Environmental Scoping for the creation of a right of way servitude in Okohandja
 - EIA for the proposed development of Dates Plantation in Otjimbingwe and Olive Plantation in Okombahe, Erongo region
- 2014:
- EIA for the construction of KUNENE STONE CRUSHER in the Outskirt of Opuwo, Kunene Region
 - EIA for the construction of DEFATIMA Village in Winhdoke, Erf 177, Wanahenda on behalf of Shilifa Property Developer cc
 - EMP for the establishment of Tsaarab Eco-camp in Ugabmund, Erongo Region
 - EIA for the construction of Tsandi Oxidation Ponds on behalf of ENI Consulting Engineers and Omusati Regional Council.
 - EMP for the operation of CAMP KIMPWE LODGE, in Erongo on behalf of the Vision of Africa, Namibia.

Delays in fraud trial a problem for Manale

Maria Amakali
Windhoek

A former Standard Bank of Namibia employee, who has been in custody for more than 16 months for allegedly defrauding the bank of N\$4 million, is still waiting for investigations into his case to be finalised and for the prosecutor general's decision.

Thirty-four-year-old Winston Manale was charged by the prosecution with fraud in connection with the alleged disappearance of N\$4 million from Standard Bank Namibia.

Manale was on the run for a quite a while before he handed himself over to the police after a warrant for his arrest was issued in December 2015. He has been in the holding cells awaiting trial after the court refused to release him on bail, for fear he might abscond due to the seriousness of the offence.

Manale's defence attorney, Meriam Kenaruzo, conveyed her displeasure with the court this week, stating that the matter has been postponed several times to make room for the investigations to be finalised and for the prosecutor general's decision, but to no avail.

"It is the third time that the matter is being remanded for the prosecutor



Winston Manale

general's decision. We request that it should be made a final remand," Kenaruzo fumed.

Manale's case has been postponed several times due to purported incomplete investigations, absent witnesses and outstanding bank statements and in June the investigative officer approached the court to be granted more time to finalise the investigations.

At the time, the investigative officer notified the court that it would only take a month to finalise the investigations.

Manale, who entered a not-guilty plea, is alleged to have used his position while employed at Standard Bank Namibia's Trust Account division in Windhoek to defraud the bank's clients by transferring payments from the Trust Fund into his personal bank account.

Manale will make his next appearance in court on September 24 with a new defence attorney, following Kenaruzo's withdrawal from the case citing a transfer to another jurisdiction.

Epupa baby still missing

WINDHOEK

Three months have gone by without inroads being made by police to find a six-month-old baby that was stolen from its mother in early May this year at Epupa village in the Kunene Region.

Namibian Police Force Crime Investigation Coordinator, Deputy Commissioner Rudolf Kanyetu told Nampa on Tuesday the baby had not yet been found.

Kanyetu said he would be travelling to Epupa on Wednesday to do a routine check as well as some investigations in trying to trace the missing baby.

Dirk Rinovita, 39, who is the first accused in this case and his two co-accused Ngombe Tjambiru, 27 and

Tijpos Tjikundi, age unknown were arrested in this regard and were denied bail after their appearance in the Opuwo Magistrate's Court on charges of theft, human trafficking and kidnapping.

Kanyetu told this news agency the two women are insisting that Rinovita told them he would steal the baby and hand her over to a certain white man, but he (Rinovita) is denying knowing about the baby.

The baby's Angolan mother, 20-year-old Ndjinaveva Kayekua, who was visiting relatives in the village at the time of the incident, is reported to be receiving psychological treatment at the Opuwo District Hospital as the incident has traumatised her.

The community of Opuwo staged a demonstration on 26 June before the second appearance of the accused persons demanding that the accused be denied bail.

It is alleged that on the night of the incident the baby and her mother were sleeping outdoors when Kayekua woke up to breastfeed the baby, but found her missing.

Efforts of family, relatives and police to trace the missing baby have hitherto proven unsuccessful. Kanyetu is still appealing to the public with information that may lead to the successful tracing of the baby to contact him on 065 273148 (work) or on his mobile at 0811298238.

- Nampa

Accused in brutal hospital stabbing says sorry

WINDHOEK

Aman charged with stabbing his 19-year-old girlfriend to death with a knife inside the Outjo State Hospital in late 2014, on Tuesday apologised to her family and Namibia.

Hendrick Nowoseb, 25, tendered his apology and asked for forgiveness a few minutes after he was found guilty on a charge of murder. He told the court Tuesday he had no intention to kill Wilhelmina Tsases and only wanted to injure her.

"I know jealousy and

uncontrolled anger forced me to commit the offence. I am really sorry for what I caused to the deceased and her family," said Nowoseb as he asked for forgiveness and for the court not to impose a long punishment.

He first stabbed Tsases on her head, neck and left arm at around 23h00 on 6 December that year at her family house in Etoshapoort, injuring her severely. He then fled the scene.

Nowoseb again stabbed Tsases the following day while she lay in a hospital bed during visiting hours. Nurses found the deceased bleeding from a fresh

and deep wound to the chest. She died shortly afterwards.

Nowoseb was arrested later that day while hiding in bushes behind Etoshapoort. Employed as a construction worker in the Outjo District, Nowoseb grew up with his grandmother and attended school up to Grade 6.

He remains in police custody and returns to court on Wednesday for the submission of evidence in mitigation and aggravation of sentence. Ntjji Tjersa defends Nowoseb, while State Advocate Martino Olivier appears for prosecution.

- Nampa

Donate 4 times during 2017

Monday, 14 August 2017	
Centre Tal Street	07:00-16:00
United House Centre	08:30-16:00
Detourmarie Namibia	09:00-14:30
G4S	09:00-14:30
Swakopmund Town (Ferdinand Stach Str 4)	13:00-18:00

Tuesday, 15 August 2017	
Centre Tal Street	07:00-16:00
United House Centre	08:30-16:00
Namibia Training Authority	09:00-14:30
Windhoek Vocational Training Centre	09:00-15:00
Walvis Bay NAMBTS (Behind Walwitschia Medi-park)	13:00-18:00

Wednesday, 16 August 2017	
Centre Tal Street	07:00-16:00
United House Centre	08:30-16:00
NUST Main Campus (Ground Floor Office Building)	09:00-15:00
Coca-Cola Bottling Company	09:00-14:30
United Fishing Enterprises (Walvis Bay)	10:00-15:00

Thursday, 17 August 2017	
Centre Tal Street	07:00-18:00
United House Centre	08:30-16:00
NUST (Lower Campus Ground Floor Sciences and Technology Building)	09:00-15:00
IT	09:00-14:30
Rössing Mine	10:00-16:30

Friday, 18 August 2017	
Centre Tal Street	07:00-16:00
United House Centre	08:30-16:00
Namibian Police Training College	09:00-14:30
Simons Storm	09:00-14:30
Pick 'n Pay (Swakopmund)	10:00-15:00

t: 061 386 300
www.bts.com.na

Woman to be charged with illegal abortion

RUNDU

A 21-year-old woman is

receiving medical treatment at Andara District Hospital after she allegedly aborted her pregnancy at five months.

Kavango East crime investigations coordinator Deputy Commissioner Bob Kanyetu told Nampa on Tuesday the incident took place on Sunday at the Frans Dimbare Youth Centre.

The woman, whose identity

is being withheld as she has not appeared in court, allegedly took unknown tablets to abort the foetus.

She is now receiving medical treatment at the hospital under strict police guard. "Once she recovers she will be charged with illegal abortion and referred to court," Kanyetu said.

- Nampa

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Permanent Closure & Rezoning of Portion A1485 from "Public Open Space" to "Business" and Construction of a Multi-tenant Business Park, Ondangwa

Triens-Katshel Logistics appointed Plantek Regional and Town Planners to apply for the permanent closure and rezoning of portion A1485 from "Public Open Space" to "Business". The proposed development site is 30,000m² in size and will be used for the construction of a multi-tenant business park. The site is located in Ondangwa extension 18, along the Ondangwa-Central Main Road in terms of the Environmental Management Act of 2007 and its Regulations (2014 No.30 of 2015), the proposed activities cannot take place without an Environmental Impact Assessment (EIA) being carried out and an Environmental Clearance Certificate being obtained.

Notice is hereby given in terms of the Environmental Management Act, No.07 of 2007, that an application for the Environmental Clearance Certificate will be submitted to the relevant competent authority (Ondangwa Town Council) and the Ministry of Environment and Tourism (MET). All potential interested and Affected Parties (I&APs) are hereby requested to register and send their comments to info@greengain.com.na before the 31 August 2017.

The public meeting is scheduled to take place on Thursday 24 August 2017 at the Ondangwa Trade Fair Center at 10:00. Enquiries: 081 1402292 Joseph Kondeja

Environmental Assessment Practitioner:
Green Gain Environmental Consultants cc
P. O. Box 27877, Windhoek
Cell: 0811402292 info@greengain.com.na

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Proposed Housing Development Project on Erf 417-446, Extension 2, Okahao

Kenya Trading CC JV/ Novice Business Consulting CC proposed to through a Public Private Partnership (PPP) with the Okahao Town Council proposed to develop twenty-eight (28) residential properties on Erf 417-446. The proposed development site is located in the low-lying (water depression) area of Okahao Extension 2. Given the nature and locality of the proposed development site, an Environmental Impact Assessment (EIA) study and Environmental and Social Management Plan (ESMP) are required.

Notice is hereby given in terms of the Environmental Management Act (EMA) No. 07 of 2007 that an application for the Environmental Clearance Certificate will be submitted to the relevant competent authority and the Ministry of Environment and Tourism (MET). All potential interested and Affected Parties (I&APs) are hereby requested to register and send their comments to info@greengain.com.na before the 31 August 2017.

The need for any public meeting will be determined after consultation with the interested and Affected Parties. All parties will be duly informed. Enquiries: 081 1402287 Joseph Kondeja

Environmental Assessment Practitioner:
Green Gain Environmental Consultants cc
P. O. Box 27877, Windhoek
Cell: 0811402292
info@greengain.com.na

enghundana Domalihafifo



ndjoka hayi dhenge iketala nokunyanyudha oshigwana.

na hekulu nd, naasho oshipundi yo oya tinakug-shokuyi komeho mpoka file. Aa inaya tsikile iyimbo nuthigu-molundji miketela, anyudha oshigwande twa kwim-mudhano wakalo bomvula ale twa ID ketu ka shetu akateka mbwe opo tu keli pa-

muthika." Tobias ta ti. Oya ti elalakano lyongundu yawo okunyanyudha, noku-kaleka po iyimbo nijdhano yopamuth-igululwakalo mbyoka ye wete ya dhinika moshilongo.

Oongalo dhawo ohaye dhi imbi mik-etela nohaya talele po omahala gi ili nogi ili momudhingoloko gwOndangwa.

Oshiwike sha ziko oyali ya nyanyukwa unene sho ya mono omayimbidhido ngoka ge ya kwathele opo ya vule okupititha oal-buma yawo yotango.

Oalbuma yawo ndjoka otayi ithanwa Hailwa Peresidente, notamu adhika oongalo 11. Tobias okwa ti elalakano lyawo okupititha oalbuma

tayi ithanwa Hailwa Peresidente, oye na etumwalaka lyu aka kOmundohotola Hage Geingob, ndyoka ya hala li thike kaye pamukalo gwiyimbo, mbyoka yati ohayi pulakenwa unene.

"Konyala uungelo mbu tawu adhika mo-albuma yetu, otwe wu ukitha komun-dohotola, a pulakene shoka tashi inyenge moshilongo, ye aheye woo kutya zantu ye koombinganoombin-ga dhoshilongo otaya hupu ngini," Tobias ta ti.

Omuna uungalo ngaashi Hailwa Peresidente hoka ta ti oko ka dhenga mbanda, uuyuni wonena moka ta holola onkalo yuuyuni tayi limbilike mokati komapini

uka opo dhi kale-kwe po, mono unene mwa kwathelewa oondjimbo nenge iyimbo yopahedhi.

Iiyimbo, noondjimbo dhomithigululwakalo oha-dhi nyanyudha nolundji ohadhi dhimbulukitha kehe ngoka edhi pulakena onakuzi-riwa," Tobias ta ti ngaaka.

Oya holola kutya ongundu yawo oye yi luku Onkam-badhala molwaashoka otaya kambadhala noyi itaala kutya gele omuntu ibo kambadhala monkafamwenyo yuye, senu ito pondola sha.

Molwaashoka okwa tiwa waz kambadhala kasandi ngoye ngele ibo umba umba ito li omatse gwokadhila. Kakele kokudhenga iketala tiyo yongundu ndjoka oyi na wo uungongo wo-paungomba ngaashi okotunga, oku fikila nokupainda niilonga oyindaji ya pamba omatungo, shono ya ti otayc shi pandulile Omushiti.

"Petameko otwa mono tu na uunongo tawu tsu kumwe.

ASSESSMENT (EIA)
Establishment of three (3) Township Extensions in Ondangwa

The Ondangwa Town Council has proposed to establish three (3) township extensions on portions 1214, 1215 and 1216 of Farm Ondangwa Town and Town lands No.882. The proposed development sites are located north-west of the town and are to be known as Ondangwa extension 36, 37 and 38. In terms of the Environmental Management Act of 2007 and its Regulations (SM No.30 of 2012), the proposed developments cannot take place without an Environmental Impact Assessment (EIA) being carried out and an Environmental Clearance Certificate being obtained.

Notice is hereby given in terms of the Environmental Management Act, No.07 of 2007, that an application for the Environmental Clearance Certificate for the proposed developments will be submitted to the relevant competent authority and the Ministry of Environment and Tourism (MET). All potential interested and Affected Parties (I&APs) are hereby requested to register and send their comments to info@greengain.com.na before the 31 August 2017.

The public meeting took place on Thursday, 24 August 2017 at the Ondangwa Trade Fair Center at 10:00. Enquiries: 981 1422927 Joseph Konde

Environmental Assessment Practitioner:
 Green Gain Environmental Consultants cc
 P. O. Box 27977, Windhoek
 Cell: 9811422927
info@greengain.com.na

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
Permanent Closure & Rezoning of Portion A4185 from "Public Open Space" to "Business" and Construction of a Multi-tenant Business Park, Ondangwa

Trans-Kalahari Logistics appointed Planek Regional and Town Planners to apply for the permanent closure and rezoning of portion A4185 from "Public Open Space" to "Business". The proposed development site is 20,000m² in size and will be used for the construction of a multi-tenant business park. The site is located in Ondangwa extension 18, along the Ondangwa-Oshana Main Road. In terms of the Environmental Management Act of 2007 and its Regulations (SM No.30 of 2012), the proposed activities cannot take place without an Environmental Impact Assessment (EIA) being carried out and an Environmental Clearance Certificate being obtained.

Notice is hereby given in terms of the Environmental Management Act, No.07 of 2007, that an application for the Environmental Clearance Certificate will be submitted to the relevant competent authority (Ondangwa Town Council) and the Ministry of Environment and Tourism (MET). All potential interested and Affected Parties (I&APs) are hereby requested to register and send their comments to info@greengain.com.na before the 31 August 2017.

The public meeting took place on Thursday 24 August 2017 at the Ondangwa Trade Fair Center at 10:00. Enquiries: 981 1422927 Joseph Konde

Environmental Assessment Practitioner:
 Green Gain Environmental Consultants cc
 P. O. Box 27977, Windhoek

Appendix C: List of IAP consulted

ORGANISATION	REPRESENTATIVE AND TITLE	CONTACT DETAILS
Trans-Kalahari Logistics	Mr. Joseph Mundjele Manager	transk.logistics@gmail.com
Plan-Tek Regional and Town Planners	Mr. Jan Brits Manager	plantek@africaonline.com.na
Ondangwa Town Council	CEO	inamgongo@ondangwadc.org.na
	Mr. Shipanga Manager: Technical Services	pshipanga@ondangwadc.org.na
	Mrs. Rachel Naukushu Town Planning Officer	Rnaukushu@ondangwadc.org.na
	Mr. Nicolas Ndeikonkola	nndeikonghola@ondangwadc.org.na
MAWF-Geo-hydrological	MR. B. Swartz	swartzb@mawf.gov.na
MAWF-Geohydrology Hydrology	Mr. Silvanus Uunona Mr. Leonard Hango Ms. Auna Amwaama	0812792212 unonas@gmail.com Leonard.Hango@mawf.gov.na Aune.Amwaama@mawf.gov.na
Roads Authority	Mr. Petro Vermeulen	vermeulenP@ra.org.na
NORED	Mr. Isak Nekwaya	i.nekwaya@nored.com.na
Aurecon-(EAP TR1-12)	Watze Hepkema	T +264 61 2977000 M +264 81 7423925 Watze.Hepkema@aurecongroup.com
NAMWATER	Mr. Johannes K. Shigwedha Manager Corporate Commun Dr. Kambanda Kakili Chief Water Supply-Northern Regions	Tel: 264 61 71 2277 Cell: 264 81 122 2858 Email: shigwedhaj@namwater.com.na +264 81 122 2858 kambandak@namwater.com.na
Adjacent Properties		
Erf- Mr. Kwela	Johannes Teopolina/Iipitwa Kwela	0812005774
Erf-	Kalombo Nehemia/NAngula Shalongo	0812914745 saigontcc@gmail.com
Erf- NORD security	Mr. Liebenberg	0812427447/0812351496
Erf-	Taimy Ngula	0812195662
Erf-3962	Mr. Abed Matsi	08172276685 / 0814565884
Erf- Oshoto Pension Hotel and Three other Properties	Thomas Mundjele	oshotoht@iway.na

Appendix D: Attendance Register for the Public Meeting



P. O. Box 61785, Windhoek Cell: 081-1422927 Email: greengaincc@yahoo.com

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE REZONING OF PORTION A/4184 AND CONSTRUCTION OF A MULTI-TENANT COMPLEX, ONGDWA

DATE: 24 AUGUST 2017
VENUE: ONDANGWA TRADE FAIR CENTRE Page...of...
TIME: 10:00
PRESENTER: J.K. Amushila

ATTENDANCE REGISTER

NAME	ORGANISATION/ADDRESS	CONTACT DETAILS	SIGNATURE
Isak Nekunya	NORED	081 2973827/065880116	[Signature]
NIKOLAS NDEIRO NGHOLA	OTC	081 3071370	[Signature]
RETTA BISAN PETROS	OTC	081 3691622	[Signature]
Joseph Amushila	GIC	081 3380114	[Signature]

"Striving for Environmental Sustainability"

