ENVIRONMENTAL SCOPING ASSESSMENT

PROPOSED REZONING OF PORTION REMAINDER 18 (A PORTION OF PORTION 16) AND 22 (A PORTION OF POTION 18) OF THE FARM BRAKWATER NO. 48 FROM 'RESIDENTIAL' TO 'INDUSTRIAL' LAND USE

DRAFT ENVIRONMENTAL SCOPING REPORT FOR PUBLIC REVIEW

SEPTEMBER 2021

W.P. Transport

URBAN green cc
Town and Regional Planning Consultants
Environmental Management Consultants

PROJECT INFORMATION

Proponent:	**WP TRANSPORT (PTY) LTD**
Project Title:	**PROPOSED REZONING OF PORTION REMAINDER 18 (A PORTION OF PORTION 16) AND PORTION 22 (A PORTION OF POTION 18) OF THE FARM BRAKWATER NO. 48 FROM 'RESIDENTIAL' TO 'INDUSTRIAL' LAND USE**
Type of Project:	**ENVIRONMENTAL SCOPING ASSESSMENT**
Project Location:	**BRAKWATER, WINDHOEK – KHOMAS REGION (NAMIBIA)**
Project Number:	**WHK/BRAK/18&22/BRAK**
Competent Authority:	**MINISTRY OF URBAN AND RURAL DEVELOPMENT** **PRIVATE BAG 13299** **WINDHOEK** **NAMIBIA**
Approving Authority:	**MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM** **DEPARTMENT OF ENVIRONMENTAL AFFAIRS** **PRIVATE BAG 13306** **WINDHOEK** **NAMIBIA**
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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PHOTOS

LIST OF TABLES

APPENDICES

Appendix E: Environmental Management Plan

LIST OF ABBREVIATIONS

A	Ampére
BID	Background Information Document
CoW	City of Windhoek
Cº	Celsius
dB	Decibel
DEA	Directorate of Environmental Affairs
DR	District Road
DSR	Draft Scoping Report
DWAF	Department of Water Affairs and Forestry
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESP	Environmental Structure Plan
etc.	Etcetera
FSR	Final Scoping Report
Ha	Hectare
I&AP	Interested and Affected Party
km	Kilometre
km/h	Kilometres per hour
kVA	Kilowatts Ampère
l	Litre
MAWF	Ministry of Agriculture, Water and Forestry
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MET	Ministry of Environment and Tourism
m^3	Cubic metres

mg	Milligram
mm	Millimetre
No	Number
Ptn	Portion
PPP	Public Participation Process
Re/	Remainder
RoW	Right of Way
SA	South Africa
SABS	South African Bureau of Standards
SANS	South African National Standards
SHEQ	Safety, Health, Environment and Quality
ToR	Terms of Reference
TDS	Total Dissolved Solids
WTPS	Windhoek Town Planning Scheme
WWTP	Waste Water Treatment Plant

GLOSSARY OF TERMS

Activity	The physical work that a Proponent proposes to undertake.
Invasive Species	It refers to a non-indigenous plant, animal or micro-organism; or an indigenous plant, animal or micro-organism, translocated or intended to be translocated to a place outside its natural range of nature, that does not normally interbreed with individuals of another kind, including any subspecies cultivar, variety, geographic race, strain, hybrid or geographically separate population.
Alternatives	A possible course of action, in place of another, that would meet the same purpose and need, but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The “no-go” alternative constitutes the ‘without project’ option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.
Assessment	The process of identifying, predicting, and evaluating the significant effects of activities on the environment; and the risks and consequences of activities and their alternatives and options for mitigation with a view to minimise the effects of activities on the environment.

Audit	Regular inspection and verification of construction activities for implementation of the EMP.
Bulk Supply	The wholesale supply of i.e. water on a business-orientated basis, in large quantities, whether in treated or untreated form, for any utilisation purpose to a customer for own use or for subsequent supply by the customer to consumers.
Bund	An enclosure designed to hold at least 120% of the contents of a liquid storage vessel, tank, or drums to contain any spillage.
Business building	A building designed and/or used as offices, warehouses, medical or dental consulting rooms, laboratories or other business purposes but does not include other buildings specifically defined or mentioned elsewhere in this Scheme with the exception of offices.
Competent Authority	A body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.
Contaminated Water	Water contaminated by the Proponent's activities, e.g. polluted runoff from plant/personnel wash areas.
Coverage	The total percentage of the area of an erf that may be covered by buildings.
Critically Endangered (IUCN)	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V of the IUCN Red List Categories and Criteria), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
Cumulative Impacts	In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Emergency Situation	An incident, which potentially can significantly impact on the environment, and which, could cause irreparable damage to sensitive environmental features. Typical situations entail amongst others the: • Spill of petroleum products and lubricants into the aquatic system. • Potential damage, erosion and slumping of unstable river embankments or drainage channels. • Potential event of impeding the continuous flow of water to downstream water user's dependant on the flow; and Dangerous situation where livestock and children can be injured by any activity emanating from the construction or rehabilitation of the project implementation.

Endangered (IUCN)	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V of the IUCN Red List Categories and Criteria), and it is therefore considered to be facing a very high risk of extinction in the wild.
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".
Environmental Impact Assessment (EIA)	The process of examining the environmental effects of a development as prescribed by the Environmental Impact Assessment Regulations (GN. No. 30 of 2012) for activities listed as List of Activities which may not be undertaken without an Environmental Clearance Certificate from the Environmental Commissioner (GN. No. 29 of 2012).
Environmental Management Plan (EMP)	A working document on environmental and socioeconomic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.
Environmental Site Manager (ESM)	It is a suitably qualified environmental officer appointed by the Proponent who oversees the on-site daily environmental responsibilities.
Evaluation	The process of ascertaining the relative importance/significance of information, in light of people's values, preference and judgements in order to make a decision.
Hazardous Substance	A substance that, in the reasonable opinion of the Engineer and/or ECO, can have a harmful effect on the environment.
Independent Environmental Officer (IEO)	A suitably qualified professional independent from the Proponent who ensure that all environmental specifications and EMP obligations are met. The IEO will be responsible for the monitoring, reviewing, and verifying of compliance with the EMP by the Proponent.
Industrial building	A building where any person performs work in connection with any business, undertaking or institution, whether as an employer or employee, pupil or inmate of an institution, or otherwise, in any one or more of the following activities: a) the making of any article or part of any article; b) the altering, repairing, renovating, testing, ornamenting, painting, spraying, polishing, finishing, cleaning, dyeing, washing, or breaking up of any article;

	c) the adaption for sale or use of any article; d) the sorting, assembling or packing (including washing or filling bottles or other containers) of any articles e) the construction, reconstruction, assembling, repairing or breaking up of vehicles or parts thereof (but excluding premises used for the purpose of housing vehicles where only minor adjustments are carried out); f) printing by letterpress, lithography, photogravure or other similar process, including any activity associated with the printing industry; g) the production and storage of gas in a holder of more than five hundred cubic metre (500 m^3) storage capacity; h) the generation and supply of electricity; i) photographic work; j) any other activity added in terms of the Labour Act (Act 23 of 1992); any activity that is necessarily or ordinarily incidental to any activity referred to in subparagraphs (i) to (x), inclusive, if the premises on which it is carried on form part of or are adjacent to the premises on which the activity to which it is so incidental is carried on: Provided that houses, residential buildings, hotels, restaurants or similar uses where food or drink is prepared mainly for consumption on the premises and any premises used temporarily and exclusively for the carrying on of any activity connected with the construction, alteration, renovation, repair or demolition of any building, bridge, road or irrigation work or similar works shall not be included in the definition of an "industrial building".
Infiltration area	The area lying within a 1 in 50 year flood area or within a strip of land measured 5 metres outwards on both sides from the outer edges of the seasonally active bed (gravel bed) or the visually identifiable banks of a watercourse which is further than 500 metre from its bounding watershed, or as may be assessed by a hydrogeological study as being an area within which surface water percolates into the groundwater in above average quantities, whichever is the larger.
Interested and Affected Party (I&AP)	Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.
Listed Activity	An activity listed in terms of section 27(2) of the Environmental Management Act and the List of Activities which may not be undertaken without an Environmental Clearance Certificate from the Environmental Commissioner (GN. No. 29 of 2012).
Mitigate	The implementation of practical measures to reduce adverse impacts.
Monitoring	Regular inspection and verification of construction activities for degree of compliance to the EMP.

No-Go Areas	Areas identified as being environmentally sensitive in some manner and demarcated on plan, and on the Site with pegs or fencing and which are out of bounds to unauthorised persons. Authorisation must be obtained prior to entry.
Noxious industrial building	A building designed and/or used for the purpose of carrying on any noxious or offensive trade or occupation and, without prejudice to the generality of the foregoing, includes the following: Chemical works, paint works, breweries and distilleries, sugar mills and sugar refineries, manure-, superphosphate- or fertilizer works; or premises used for the storing or mixing of manure, superphosphates or fertilizers or premises for the storing, drying, preserving or other treatment of bones, horns or hoofs, premises used for the storing, sorting or treatment of hides and skins, other than in a dry and inoffensive condition, abattoirs, glue or size factories, entrail scraping and tripe boiling works; soap or candle works, fat and dripping works and any other similar works where meat, bones, blood, offal or other animal organic matter is handled, wool scouring or wool washing works, rock-lobster or fish processing works, fish pickling or rock-lobster and fish canning trades, whaling stations, premises or trades used for the storing or handling and processing of material originating from fish, whales and seals, paper-mills or paper factories, wattle-bark grinding or extract factories, destructors, depositing sites or other sites for the disposal or processing of domestic refuse, trade refuse, street refuse, sewage or night-soil, lead melting works, oil refineries and other trades in connection with the processing of by-products or petroleum refining, paint and varnish works, quarries, asbestos cement-, bricks- and lime-works, metallurgical works, reduction and reprocessing works or any other works or trade which the Competent Authority may declare as such by notice in the Gazette.
Petroleum:	Includes petrol and diesel
Proponent:	Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment, Forestry & Tourism.
Residential unit	A room or suite of rooms, other than a dwelling unit, which is designed as a dwelling for a single household or for one or more single persons.
Scoping Process	Process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.
Service station	A building used for the purpose of profit or gain for one of the following purposes, namely to maintain or repair motorbikes and motor vehicles or to supply fuel and for related purposes which also includes the parking or storage of motor vehicles, the sale of parts, accessories, fuel and lubrications for motor

	vehicles, but does not include panel-beating, spray painting and the dismantling of motor vehicles and motorbikes (except for minor repair works).
Significant Effect/Impact	Means an impact that by its magnitude, duration, or probability of occurrence may have a notable effect on one or more aspects of the environment.
Site	In relation to a building includes the area of any appurtenances, outbuildings, yard, court or garden occupied or intended to be occupied in conjunction therewith.
Solid Waste	All solid waste, including construction debris, chemical waste, excess cement/concrete, wrapping materials, timber, tins and cans, drums, wire, nails, food, and domestic waste.
Topsoil	The top 150 mm of soil (topsoil) and root material of cleared vegetation.
Warehouse	A building used or intended to be used for the storage of goods other than goods which will be used on or sold by retail from the premises on which they are stored.
Zone	A portion of the area shown on the City of Windhoek Map by distinctive colouring, hatching, edging or in some other distinctive manner for the purpose of indicating the restrictions imposed by this Scheme on the erection and use of buildings or the use of land; and the terms "density zone", "use zone" and "bulk zone" mean zones indicating restrictions as to density, use and bulk factor of buildings respective.

EXECUTIVE SUMMARY

It is the intention of WP Transport (Pty) Ltd., the Owner (Proponent) of Portion Remainder 18 (a Portion of Portion 16) and Portion 22 (a Portion of Portion 18) of the Farm Brakwater No. 48 to rezone the properties from 'residential' to 'industrial' land use. The properties are adjacent to one another.

With the transaction whereby WP Transport (Pty) Ltd was taken over by Imperial Logistics, but still operated as WP Transport, it was determined that the mentioned properties are still zoned as 'residential'. The Portions need to be rezoned to reflect their 'industrial' land use, since it has been developed over several years to accommodate the economic activities of an industrial nature going on. The properties are registered in the name of WP Transport (PTY) Ltd.

This land use change is in line with the Brakwater Policy Guidelines of the City of Windhoek for the area that is located approximately 10 km north of Windhoek, east of the A1 main road, in Development Zone E, earmarked for Industrial Core. Infrastructure in this area, such as water supply from NamWater, electricity from NamPower, the A1 main road and D1473, has been upgraded in recent years to accommodate industrial development in this area.

In accordance with the Environmental Management Act, (Act No. 7 of 2007) and within the framework of the Environmental Impact Assessment Regulations (2012), Urban Green cc (EAP) has been appointed by the Proponent to undertake an Environmental Scoping Assessment (ESA) and apply for an Environmental Clearance Certificate for the required rezoning. This ESA process was carried out in accordance with provisions for EA, as prescribed by the Environmental Impact Assessment Regulations (GN. No. 30 of 2012), provided for by Section 56 of the Environmental Management Act (No. 7 of 2007).

During the first site visit it was determined that the pollution of soil, surface- and groundwater would be the biggest concern for Environmental Management, since the Project Site is located on the banks of the Klein Windhoek River. The drainage forms part of the Swakop River catchment and downstream usage includes farm boreholes, the Swakop River alluvial aquifer and the Swakoppoort Dam.

Another environmental concern is the invasion of *Prosopis* trees in the project area along the Klein Windhoek River. It is ordered by the Windhoek Town Planning Scheme section 29 that these species be removed and may not be planted on site. It is the responsibility of the Proponent to remove these trees to allow for the revegetation by indigenous species. It will enhance the riverine ecology, which currently provide habitat for a variety of bird species and ground dwelling animals. In the Brakwater area these are mostly limited to smaller rodents, hares and reptiles as larger mammals have mostly been hunted and displaced by anthropogenic activities.

Public consultation was undertaken as prescribed by Regulations 21 to 24 of the Environmental Impact Assessment Regulations (GN. 30 of 2012). Engagement with the public and authorities as part of the first round of public consultation commenced on the 11th of May 2021 and concluded on the 9th of June 2021. During the first round of consultation, I&APs and authorities were given an opportunity to register and submit comments and/or concerns on the proposed project (Chapter 6).

The following ***positive impacts*** (section 7.1.1) where identified during the screening process and should be mentioned for consideration during the Environmental Assessment:

- Rezoning would be in line with future planning for the area by the City of Windhoek;
- The socio-economic benefits associated with the rezoning will involve continuation of job creation to 122 personnel on Portion 18 of the Farm Brakwater No. 48 and another personnel corpse of Cerebos on Portion 22 of the Farm Brakwater No. 48; and
- Ecosystem and Biodiversity can be positively enhanced if management of *Prosopis* infestation is undertaken.

Impacts assessed ***without further investigation*** (7.1.2) was:

- Change in Land Use will not influence the sense of place, can increase the value of the land given the development potential and will ensure consistent creation of employment of current personnel. An indirect negative impact may occur if the activities cause any environmental degradation and/or pollution as a result of poor operational practices. This is addressed in the Environmental Management Plan (Appendix E).
- Visual Aesthetics and Sense of Place was found not significant, since the existence of various bulk infrastructure (i.e. A1 National Highway, TransNamib railway line, NamPower depot, transmission lines and substation, NamWater bulk pipeline) and other development activities in the immediate vicinity of the property, which minimises its overall pristineness. No neighbouring sensitive visual receptors exist.
- Natural Resources will not be impacted any further by the rezoning. The activities of the truck port and salt factory have already been carried out for some years and rezoning will not cause an increase in current water or electricity use. With proper Environmental Management energy saving mechanisms and water wise methods could be applied to limit resource use in future.

Potential operational impacts (section 8.5) identified and assessed were:

- Soil, Surface and Ground Water Pollution (8.5.2.1)
- Health, Safety and Security (8.5.2.2)
- Traffic Safety (8.5.2.3)
- Noise and Vibration (8.5.2.4)
- Emissions & Dust (8.5.2.5)

The potential pollution significance is due to the Project Site being located directly on the banks of the Klein Windhoek River and the transport and storage of hazardous substances as part of the economic activities on site. Petroleum tanks, septic tanks, wash bay, workshop, warehouse and ablution facilities were investigated and addressed during the EIA and EMP. The expected impacts of polluting substances are ***high***, but mitigation measures exist and if implemented correctly it can be reduced to ***low*** impact (see Section 8.5.2.1).

Fire and explosion hazards may result from the presence of combustible gases and liquids on site. Health, Safety and Security thus becomes an issue of ***moderate*** significance that can be reduced to ***low*** significance with the relevant safety precautions and mitigation measures (see Section 8.5.2.2).

Traffic movement of heavy vehicles to and from the Project Site and the immediate industrial area have increased over the last few years. This lead to an additional load being placed on existing infrastructure and increased safety risks that can be of ***moderate*** significance. Future planning by the City of Windhoek for access to the Project Site and neighbouring plots are along the upgraded D1473 gravel road all the way to the east of the Klein Windhoek River and then reaching the Project Site from the east along a right of way servitude that must be constructed across the Klein Windhoek River. This future planned access road will be safer near the junction with the A1 road and with relevant mitigation measures traffic safety can be reduced to ***low*** significance (see Section 8.5.2.3).

By applying a series of the mitigation measures as proposed for general industrial and transport business type operations, it is believed that any potential nuisance with regards to noise & vibration and emissions & dust can be managed to have a ***low*** impact.

Cumulative impacts expected on existing natural resources are that of possible ground- and surface water contamination. The Project Site will add to the pollution already taking place upstream where the river flows through Windhoek City. The significance will be determined by the mitigation measures implemented on site as well as by businesses upstream. The increase in electricity and water usage as well as pressure on the infrastructure in the area has taken place gradually over time. However, the Project Site falls within the core industrial area (Zone E) earmarked by the City of Windhoek for industrial development and infrastructure in this area have already been developed to accommodate increased industrial activity. Other cumulative impacts would be the increase in traffic as well as emissions and dust for which mitigation measures exist. Taking the above into consideration, the cumulative impact of the rezoning, with the implementation of the proposed mitigation measures to minimise the overall impacts, can be expected to be ***low***.

Following this Environmental Impact Assessment, it was found that none of the potential impacts identified are regarded as significant to prevent the rezoning, since mitigation measures for those exist. With the combination of all the impacts of the rezoning, taken into account the social, economic and environmental level should be classified as having a predominantly ***low*** significance impact rating. This rating will only be true if all proposed mitigation measures are implemented and the activities are operated to a satisfactory level within all relevant Legislation and Recommendations.

Urban Green cc, as independent environmental assessment practitioners, recommended to the relevant authorities that the application for rezoning be **approved** given that the recommendations be met and that continued monitoring be conducted as per the Environmental Management Act (Act No. 7 of 2007).

1 INTRODUCTION TO THE PROJECT AND THIS REPORT

It is the intention of WP Transport (Pty) Ltd., the Owner (hereafter referred to as the Proponent) of Portion Remainder 18 (a Portion of Portion 16) and Portion 22 (a Portion of Portion 18) of the Farm Brakwater No. 48 (hereafter referred to as Portions 18 and 22 or the Project Site) to rezone the properties from 'residential' to 'industrial' land use, located adjacent to one another.

The proposed rezoning includes certain activities that are listed as 'Listed Activities' according to Government Notice No. 29 of 6 February 2012, which requires that an Environmental Clearance Certificate (ECC) be obtained from the office of the Environmental Commissioner, thus requiring that an Environmental Impact Assessment (EIA) be conducted.

This draft Environmental Scoping Report presents information on the properties and its proposed rezoning; the EIA approach and methodology followed; the legislation applicable to the study conducted; the sensitivity of the receiving environment; public consultation conducted; nature and extent of potential impacts (environmental and social) and required mitigations and a conclusion and recommendations based on the findings.

This chapter of the Report provides a background and motivation to the proposed rezoning, the terms of reference stipulated to the Consultant, the EIA approach and methodology followed, the study assumptions and limitations, the purpose and goals, the structure of the Report and an opportunity to comment on this Report.

1.1 BACKGROUND AND MOTIVATION TO PROPOSED REZONING

WP Transport (PTY) Ltd. is a well-established and successful Namibian freight transporting company in operation since 2000. Imperial Logistics' Africa division acquired 60% of WP Transport in 2006 and the company grew steadily until the Imperial Group also acquired the remaining 40%. WP Transport (PTY) Ltd. is now wholly owned by Imperial Logistics' Africa division (*Matthew Staff*), but remains to operate as WP Transport (PTY) Ltd.

With the transaction whereby WP Transport (Pty) Ltd. was taken over by Imperial Logistics, it was discovered that the mentioned properties are still having a land use of 'residential', although it has been developed and used for 'industrial' purposes for several years now. The properties are registered in the name of WP Transport (PTY) Ltd.

Portion 18 of the Farm Brakwater No. 48 is used by WP Transport (PTY) Ltd. as their truck depot and maintenance facility. It accommodates various structures of both residential and industrial nature. The Portion accommodates the initial farm house, offices with parking area, a warehouse with offices, a large workshop, wash bay, filling station, ablutions block, domestic quarters and vast open areas used for storage of trucks, trailers, tanks and containers. This part of the Portion is fenced in by security fencing, while the southern part of the Portion is undeveloped.

Portion 22 of the Farm Brakwater No. 48 is being rented by Cerebos and used as a salt packaging factory and distribution centre since 2018. The structures on this erf are of industrial nature, consisting of a warehouse with offices, an ablution block, open area where bulk salt bags are stacked and parking area for trucks.

1.1.1 NEED FOR THE REZONING

According to the City of Windhoek's land use map, Portions 18 and 22 of the Farm Brakwater No. 48 are zoned for 'residential' purposes with a density of 1 dwelling unit per 5 hectares (*Windhoek Town Planning Scheme*).

The mentioned Portions have however been developed and used for several years for industrial activities under different owners. Portions 18 and 22 of the Farm Brakwater No. 48 is typical of those properties in the larger Brakwater that have had a change in activities prior to the incorporation of the Brakwater area into the jurisdictional boundaries of the Windhoek City Council, but was never included as per the actual operating activities.

Considering the nature of the structures and activities at Portions 18 and 22 of the Farm Brakwater No. 48, being of an industrial nature, located on 'residential' zoned land, a rezoning of land use is required, as provided for by the Windhoek Town Planning Scheme.

1.1.2 COMPATIBILITY WITH FORWARD PLANNING DOCUMENTS

This land use change is in line with the Brakwater Policy Guidelines of the City of Windhoek for the area that is located approximately 10 km north of Windhoek, east of the A1 main road, in Development Zone E (Industrial Core). Application for rezoning to industrial from residential is thus allowed. See Chapter 4.3 for future development guidelines of the area.

1.1.3 COMPATIBILITY WITH SURROUNDING LAND USES

The land use in the area is of an industrial nature, since numerous industrial developments expanded in the immediate surrounding of the Project Site. An industrial park (The Brakwater Industrial Estate) has been developed to the south of the project site and industrial erven are being advertised for further development. To the east and north of the project site are further properties used for industrial activities and to the west is the TransNamib railroad with its servitude and the A1 main road linking Windhoek and Okahandja.

A more detailed description of the land use around the study area is presented in Chapter 3.5.

1.2 TERMS OF REFERENCE

No formal Terms of Reference (ToR) were provided, but rather were inferred from the requirements of the applicable legislation namely the Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), to enable an application for an ECC with the Environmental Commissioner, as required by Section 27(3) of the Environmental Management Act (No. 7 of 2007)

The purpose of this Study is to apply for an ECC as per the requirements of the Environmental Management Act (Act No 7 of 2007) only. See Appendix A for the Application for an Environmental Clearance Certificate for the rezoning of the two properties from 'residential' to 'industrial' use. Some of the permits or licenses required (see Chapter 4.4) for the operations on the Project Site still need to be applied for by the Proponent. Water and electricity contracts are in place, but the permit for abstraction of ground or surface water for industrial or commercial purposes from the existing borehole forms part of this application. Also the construction of

industrial and domestic wastewater treatment plant and related pipeline system, manufacturing, storage, handling or processing of hazardous substances and the storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters are applied for.

1.3 STUDY APPROACH AND METHODOLOGY

This EA process was carried out in accordance with provisions for EA, as prescribed by the Environmental Impact Assessment Regulations (GN. No. 30 of 2012), provided for by Section 56 of the Environmental Management Act (No. 7 of 2007).

The study's approach and methods were guided by the Terms of Reference (Chapter 1.2) and the relevant legislation (Chapter 4).

The EA process is a planning, design and decision-making tool used to inform the relevant authorities and proponent what the consequences of their decisions will be in biophysical and social terms. As such, it identifies potential impacts (negative and positive) that the rezoning may have on the environment; as well as identifying potential opportunities and constraints the environment may pose to the rezoning.

The steps followed as part of this EA process are registration of application for an ECC and execution of the Scoping Phase (content of this report). A flowchart indicating the process being followed is presented by Figure 1.1 below.

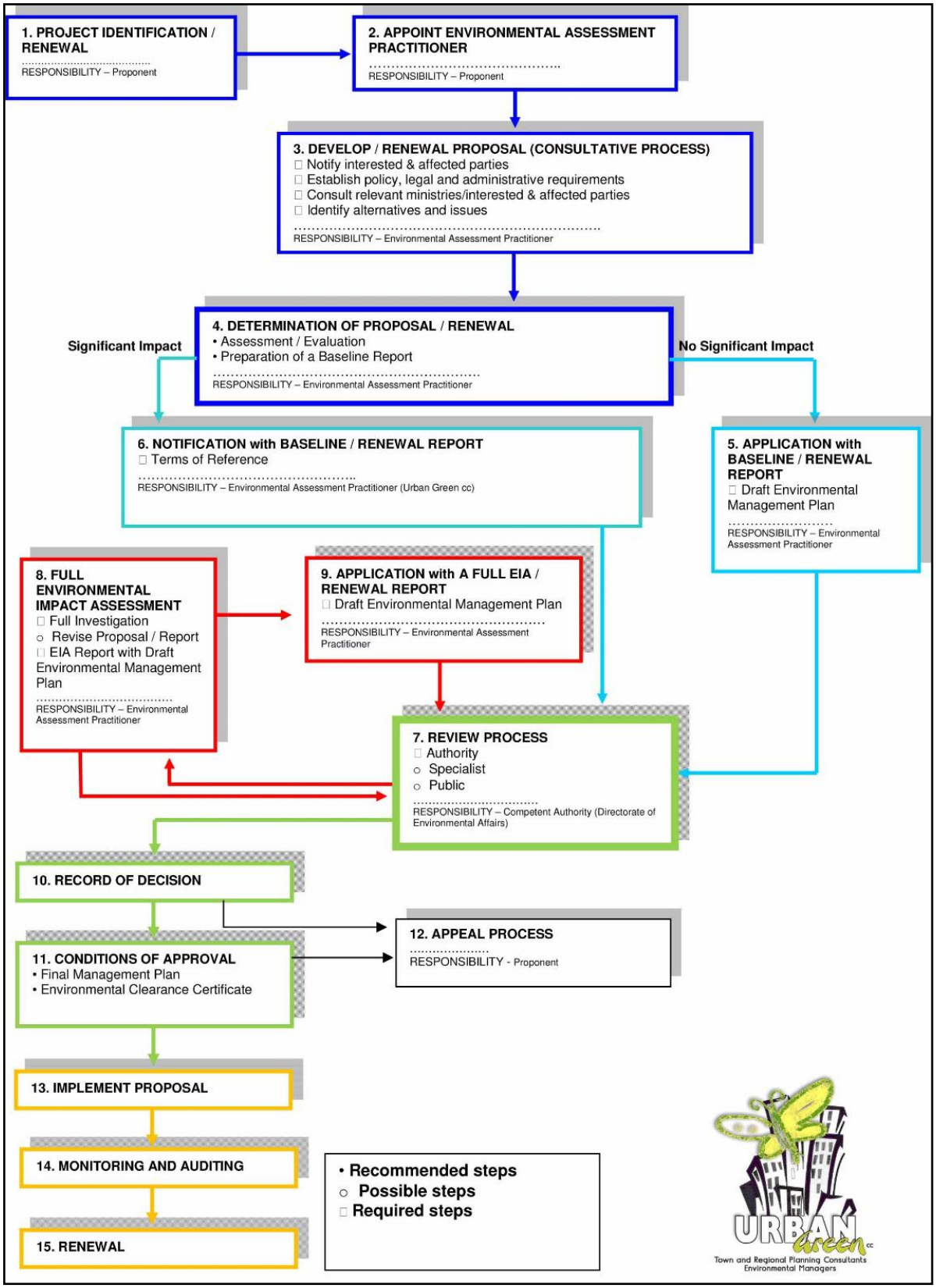

Figure 1.1 – *The EIA process*

1.3.1 REGISTRATION OF APPLICATION FOR ENVIRONMENTAL CLEARANCE

The first step followed as part of this EA process was to identify the listed activities, which the proposed project entails, as stipulated in the '*List of Activities that may not be undertaken without an Environmental Clearance Certificate'* (GN. No. 29 of 2012) and register the mentioned with the Office of the Environmental Commissioner. The listed activities identified for which an ECC is required for this rezoning are listed below.

Table 1.3 *- Listed activities as per Government Notice 29 of 2012 applicable*

Activity No.	Activity Description
LAND USE AND DEVELOPMENT ACTIVITIES	
Section 5.1	The rezoning of land from - (a) residential use to industrial or commercial use.
WATER RESOURCE DEVELOPMENTS	
Section 8.1	The abstraction of ground or surface water for industrial or commercial purposes.
Section 8.6	Construction of industrial and domestic wastewater treatment plants and related pipeline systems.
HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE	
Section 9.1	The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974
Section 9.4	The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.

In accordance with Section 32 of the EMA, applications for an ECC should be submitted with the relevant Competent Authority, which for this rezoning was identified to be the Ministry of Environment, Forestry and Tourism and the Ministry of Urban and Rural Development. Both the mentioned authorities were informed in writing on 9 April 2021 of the proponent's intention to apply for an ECC for rezoning with the Environmental Commissioner. After the first site investigation it became evident that additional activities had to be registered and this additional application was submitted on 19 May 2021 (Appendix A).

1.3.2 SCOPING PHASE AIMS

The next step followed as part of this EA process was the scoping stage. The identification of impacts and their significance as well as public consultation (as prescribed by Regulation 21 to 24 of the EIA Regulations (GN. No. 30 of 2012) are important elements of the scoping stage. Hence, during the scoping stage issues/impacts that are likely to be significant are identified and those that are less significant are evaluated and if warranted, eliminated.

This stage, which began during April 2021 and is currently still underway, set out to -

- Provide reasonable opportunity for the involvement of I&APs (including relevant authorities) in the study;

- Collect baseline information and professional/public opinion with regards to the rezoning and the receiving environment (i.e. social and biophysical environments);
- Establish the need and desirability of the rezoning;
- Determine the manner in which and to what extent the rezoning may affect the biophysical and social environment;
- Identify any potential environmental issues and impacts related to the properties and their operational activities requiring further investigation in the EIA;
- Highlight the potential significant effects that are likely to be of most importance and to develop or recommend mitigation measures; and
- Advise on any further studies to be conducted (if any) and provide appropriate Terms of Reference for these.

1.3.3 SCOPING STUDY METHOD

The method followed during the scoping stage was as per requirements set by the Environmental Impact Assessment Regulations (GN. No. 30 of 2012), which included –

- Giving notice of the ECC application to all potential interested and affected parties (I&APs);
- Public consultation as per Regulation 21 which included the -
  - Opening and maintaining a register of all I&APs;
  - Receiving and recording of all comments and representations received from I&APs following the public consultation processes;
- Preparing a scoping report by subjecting the proposed application to scoping by -
  - Assessing the potential effects of the proposed listed activity on the environment;
  - Assessing whether and to what extent the potential effects identified can be mitigated and whether there are any significant issues and effects that require further investigation;
  - Identifying feasible alternatives related to the development;
  - Setting the Terms of Reference for further investigations (if required);
  - Informing I&APs of the way forward in the EA process;
  - Inviting all registered I&APs to comment on the scoping report.
  - Ensuring informed, transparent and accountable decision-making by the relevant authorities; and
- Informing all registered I&APs of the decision of the office of the Environmental Commissioner.

1.3.4 ISSUES AND CONCERNS RAISED DURING THE SCOPING PHASE

Rezoning of the Project Site to ‘Industrial’ will allow for both industrial and noxious industrial activities to take place on the property. However, consent from the City of Windhoek will still be

required for certain activities. Impacts associated with industrial and noxious industry developments include the following:

- Soil, surface water and groundwater pollution;
- Waste (domestic and hazardous);
- Ecosystem and biodiversity impacts;
- Health, safety and security;
- Reduced air quality (dust or emissions);
- Noise;
- Fire;
- Traffic; and
- Visual impacts.

Issues of specific concern identified on Portion 18 and 22 of the Farm Brakwater No. 48 during initial scoping were related to the pollution of soil, surface and groundwater. The properties are situated directly on the banks of the Klein Windhoek River, which forms part of the Swakoppoort Catchment Area, with downstream boreholes and dams including the Swakoppoort Dam.

On Portion 18 of the Farm Brakwater No. 48 are hazardous substances that are usable or stored for transportation such as petroleum and oil that can have detrimental impact on soil, surface - and groundwater. On Portion 22 of the Farm Brakwater No. 48 salt are stored outside that may also cause degradation of soils and underground water, but to a lesser extent, because of the organic nature of salt. Hazardous substances also have the potential to impact the ecosystem and biodiversity during flooding, accidental spillage or explosion. Health, safety and security therefore also become an issue.

1.3.5 WAY FORWARD IN THE EIA PROCESS

The following steps are envisaged for the remainder of the EIA process:

- Providing the DSR for comment to all registered I&APs;
- Including all potential comments on the DSR into the FSR;
- Submission of the FSR to the Competent Authority and the Approving Authority for consideration and decision-making;
- After the issuing of the Directorate's (Approving Authority) decision all I&APs and stakeholders on the project database will be notified of the outcome of the application, as appropriate; and
- A statutory appeal period in terms of Part X, Section 50 of the EMA will follow the issuing of the decision (Clearance Certificate).

1.4 STUDY ASSUMPTIONS AND LIMITATIONS

The following assumptions and limitations applied to the Study:

- It is assumed that the information provided by the Proponent is accurate and transparent;
- No alternative sites for assessment was provided, since the development is existing;
- It is assumed that formal approvals and permits with regards to the supply of water and electricity services and the handling of sewage are in place;
- It is assumed that there will be no other developments other than the existing on the properties or effected environment between the compilation of the assessment and decision making that could substantially influence findings and recommendations;
- The study involved the assessment of impacts on the current conservation value of affected land and not on either the historic or potential future conservation value; and
- This assessment is based on the prevailing environmental context.

1.5 PURPOSE AND GOALS OF THIS REPORT

This Draft Scoping Report (DSR) has been compiled as part of the Environmental Assessment that has been undertaken for the rezoning of two portions, Portion remainder 18 (a Portion of Portion 16) and Portion 22 (a Portion of Portion 18) of the farm Brakwater no. 48 from 'residential' to 'industrial' land use that lies adjacent to one another and is registered in the name of WP Transport (Pty) Ltd. This DSR summarises the process followed to date, provides a description of the project and addresses the issues raised by Interested and Affected Parties (I&APs). It further provides an assessment of the possible social and environmental impacts that the rezoning would have along with mitigation measures.

The Draft version of this Report is made available for public review and comment (see Chapter 6) during August 2021. Comments received will be included as part of the Final Scoping Report (FSR) to be submitted to the Ministry of Urban and Rural Development (i.e. Competent Authority) and the Directorate of Environmental Affairs (DEA) with the Ministry of Environment, Forestry and Tourism (i.e. Approving Authority) for evaluation and decision-making.

After the DEA has reached a decision, all registered I&APs on the project database will be notified of the decision and the requirements of the statutory Appeal Period.

1.6 OPPORTUNITY TO COMMENT ON THIS DRAFT SCOPING REPORT

This Draft Scoping Report is made available for a 7-day review and comment period (1 September to 8 September 2021). All registered I&APs and Authorities have been informed of the availability of this Draft Scoping Report via email.

Brand van Zyl
Urban Green cc
PO Box 11929, Klein Windhoek, Windhoek
Telefax: 061 300 820
E-mail: urbangreen@iway.na

Comments on the Draft Scoping Report should reach Urban Green cc no later than 8 September 2021 for inclusion in the Final Scoping Report.

1.7 STRUCTURE OF THE REPORT DRAFT SCOPING REPORT

This report consists of nine chapters as outlined below.

Table 1.7 *– Structure of the Draft Scoping Report*

SECTION	CONTENTS
Executive Summary	**Executive Summary** Provides an overview of the main findings of the Study.
Chapter 1	**Introduction** Provides a background and motivation to the proposed development; Terms of Reference; the study approach and methodology, assumptions and limitations; outlines the purpose, goals and structure of the Report. It also describes the procedure for submitting comment on the Study.
Chapter 2	**Project Team and Expertise** Provides an overview of the role-players participating in the project as well as their experiences.
Chapter 3	**Description of the Developed Environment** Provides a description of the locality, build-up environment and infrastructure of the Properties, economic activities on site and surrounding land use. This chapter also addresses visual aesthetics, alternative options and future planning considerations.
Chapter 4	**Legislations Applicable to Proposed Rezoning** Provides an overview of the relevant legislation associated with the proposed rezoning and relevant to the economic activities undertaken on Portion 18 and 22.
Chapter 5	**The Receiving Environment** Describes the existing physical - and bio-physical - as well as the socio-economic environment of the study area.
Chapter 6	**Details of the Public Participation Process** Explains in detail the public consultation process followed as part of this study. Feedback received from registered Interested and Affected Parties and Stakeholders are listed as well.

Chapter 7	**Assessment of Environmental Issues and Potential Impacts** Describes the screening and scoping process undertaken to determine the potential impacts of the proposed rezoning and economic activities. Mitigation measures are provided for each impact as appropriate and recommended.
Chapter 8	**Conclusions and Recommendations** Provides conclusions to the impact assessment and evaluates the overall suitability of the proposed rezoning. Recommendations for the rezoning and industrial activities are also provided, as appropriate.
Chapter 9	**References** Provides information on the information referenced in the document.

2 PROJECT TEAM

2.1 ROLE PLAYERS

The role players in this project are set out in Table 2.1.

Table 2.1 *- The role players*

ORGANISATION	PROJECT ROLE
Ministry of Environment, Forestry and Tourism - Directorate of Environmental Affairs	Decision-making authority for environmental authorization
Ministry of Urban and Rural Development	Competent Authority
WP Transport (Pty) Ltd	Proponent / Client
Urban Green cc	Independent Environmental Consultant (EAP)

2.2 EXPERTISE OF THE EAP

The qualifications and expertise of the environmental consultants and specialists are set out in Table 2.2 below. See Appendix B for the CV's of the EAP.

Table 2.2 – *Qualifications and expertise of the environmental consultants*

NAME	**Mr Brand van Zyl**
Responsibility on the Project	EAP Public consultation
Qualifications	M. Degree in Environmental Management; M. Degree Town and Regional Planning; Bachelor of Arts Urban Geography
Professional Registration	Namibian Council for Town and Regional Planners Member of the Green Building Council of South Africa
Experience in years	17
Experience	Brand van Zyl has been involved in various Environmental Impact Assessment studies throughout Namibia and of different kind.
NAME	**Christina Tromp**
Responsibility on the Project	EAP Impact assessment and mitigation formulation; reporting and application for Environmental Clearance
Qualifications	M. Phil Degree in Environmental Management and Bachelor of Science Degree in Agriculture, majoring in Nature Conservation
Professional Registration	Environmental Assessment Professional Association of Namibia (EAPAN)

Experience in years	12
Experience	Christina Tromp is an educated environmentalist with work experience in the Namibian environment in Rural Development, Agricultural and Environmental sectors. She is a registered Environmental Assessment Practitioner. Her work experience was gathered in most regions of Namibia.

3 THE DEVELOPED ENVIRONMENT

This chapter describes the details pertaining to the Project Site's locality, existing structures and infrastructure, economic activities and industrial characteristics of the surrounding area. It also addresses visual aesthetics and future planning considerations. The description has been compiled based on primary information obtained from the Proponent, secondary information on the general area and previous environmental studies conducted in the area as well as site visits.

3.1 LOCALITY

The two portions to be rezoned are located on the Farm Brakwater No. 48, situated within the central-eastern parts of the larger Brakwater area in the Khomas Region. It is approximately 10 km north of the capital city Windhoek directly east of the A1 main road between Windhoek and Okahandja. (see Figure 3.1 for the Locality Map). Portions 18 and 22 of the Farm Brakwater No. 48 are situated next to each other just south of NamPower's Brakwater Depot, east of the TransNamib railway and its servitude and directly on the western banks of the Klein Windhoek River.

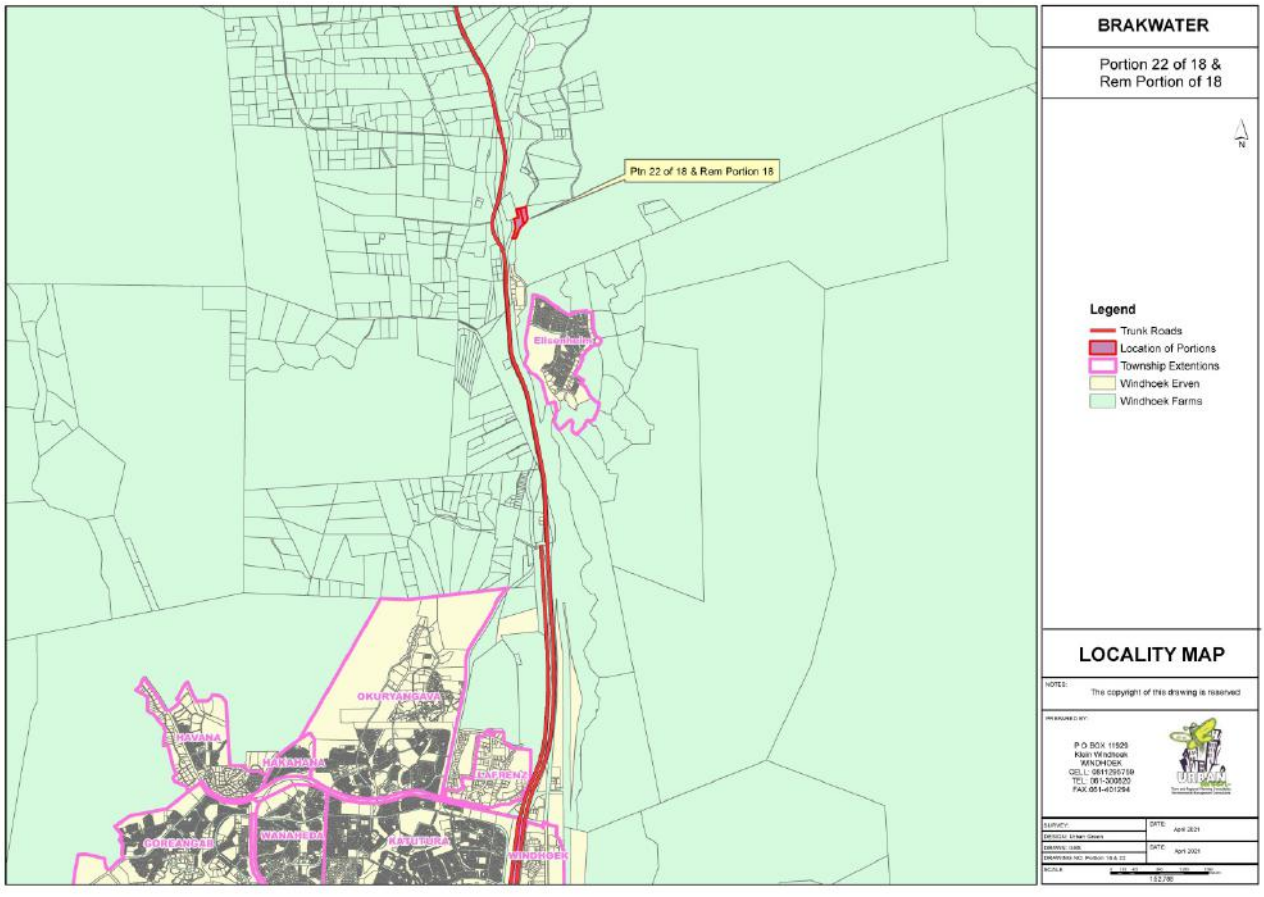

Figure 3.1 *– Locality Map of Portion 18 and 22 of the Farm Brakwater No. 48*

3.2 EXISTING STRUCTURES

On Portion 18 of the Farm Brakwater No. 48 is the original residential house and offices with lots of parking space, a warehouse with more offices, a workshop, wash bay and filling station (see Figure 3.2).

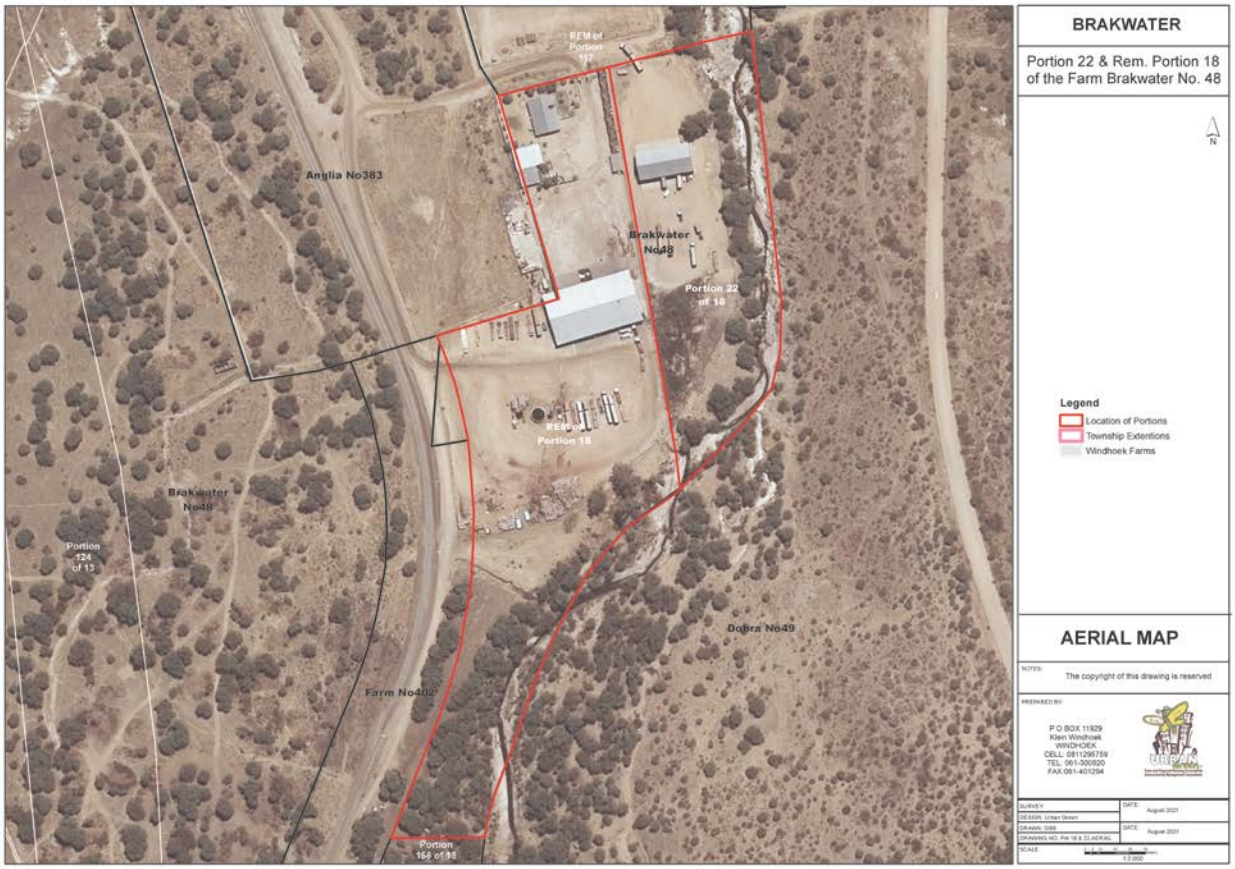

Figure 3.2 *– Aerial Map of Portion 18 and 22 of the Farm Brakwater No. 48*

Containers on the site serve as ablution, domestic quarters and storage. Vast storage space exists for trucks, trailers, tanks and containers. This area is fenced in by security fencing, leaving a portion on the southern side unaffected (See Photo 3.2.1 – Photo 3.2.6).

Photo. 3.2.1 *Residential house on Portion 18*

Photo. 3.2.2 *Offices on Portion 18*

Photo. 3.2.3 *Warehouse with wash bay, offices and workshop on the left*

Photo. 3.2.4 *Warehouse with workshop and storage containers to the right*

Photo. 3.2.5 *Storage space on Portion 18*

Photo. 3.2.6 *Parking space for trucks Portion 18*

On Portion 22 of the Farm Brakwater No. 48 is a warehouse with offices and ablution and a vast open area where bulk salt bags are stacked (See Photo 3.2.7 and Photo 3.2.8).

***Photo*. 3.2.7** *Cerebos salt factory (viewed from the north)*

Photo. 3.2.8 *Cerebos salt factory (viewed from the south)*

3.3 BULK SERVICE INFRASTRUCTURE

A well-developed bulk service infrastructure already exists for the surrounding area and the properties to accommodate the economic activities of industrial nature going on. Thus the preference in more industrial-like developments in the general area, which is further supported by a relatively flat topography.

3.3.1 ELECTRICITY

Both properties are already connected to the NamPower grid with connections on site.

Photo. 3.3.1 *Electricity connection to Portion 18*

Photo. 3.3.2 *Electricity connection to Portion 22*

The contract for electricity supply is with NamPower that charges WP Transport (Pty) Ltd. for both properties. Electricity use on average is approximately 170 A per month.

3.3.2 WATER

Windhoek receives its water from boreholes in and around town, reclaimed water from the Goreangab Water Reclamation Plant and a NamWater scheme that transfers water from the Von Bach Dam, the Swakoppoort Dam, the Omatako Dam and the Grootfontein Karst Area. The city has also started with artificial recharge of the Windhoek aquifer and is planning to extend this scheme through the installation of new recharge boreholes as well as the development of deeper abstraction boreholes, 400 to 500 m deep (*NamWater*).

Water supply to both properties comes from NamWater's Otjihase line for drinking and general use as well as from a borehole on Portion 18 with brackish water for washing and dust control. The permit for this borehole must be obtained and forms part of this application for Environmental

Clearance. The contract for water supply is with NamWater that charges WP Transport (Pty) Ltd for both properties. Water usage is in the range of 400m^3 per month.

3.3.3 ACCESS

Portions 18 and 22 of the Farm Brakwater No. 48 can currently be reached by turning east from the A1/Döbra junction approximately 10 km north of Windhoek on the Döbra road (D1473), crossing the TransNamib railroad and then turning immediately south on the gravel road that runs parallel with the railroad and the A1 main road (See Figure 3.3). The blue line on Fig. 3.3 indicates the current access road.

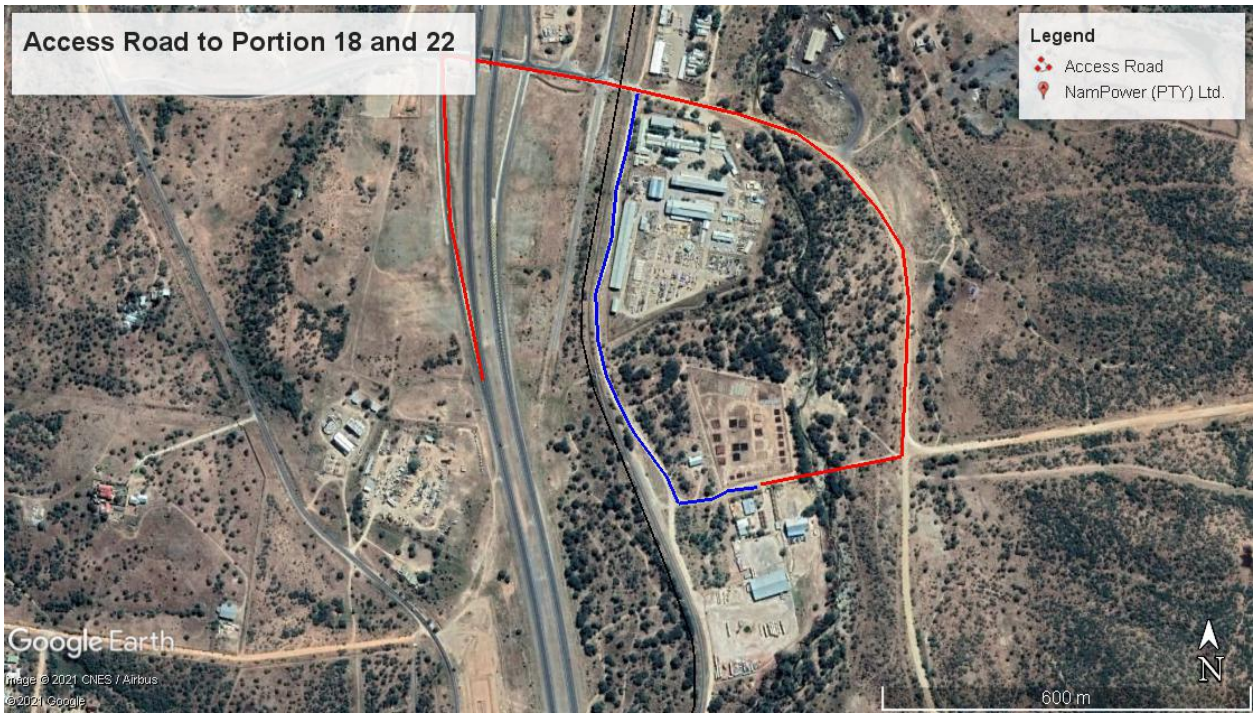

Figure 3.3 Current and future access road to Portions 18 and 22 of the Farm Brakwater No. 48

Photo 3.3.3 *Junction of A1 Main Road and D1473 towards Project Site*

Photo 3.3.4 *Turn-off on gravel road that runs parallel to A1 and TransNamib railroad*

Photo. 3.3.5 *Entrance to Portion 18*

Photo. 3.3.6 *Entrance to Portion 22*

This access road (blue line) originated through use over the years and is currently still used by numerous plot owners along the railroad. This road, however, does not correlate with the City of Windhoek's Urban Transport Master Plan for this area. Future planning for access to the Project Site and neighbouring plots are along the upgraded D1473 gravel road and then reaching the Project Site from the east along a right of way servitude that must be constructed across the Klein Windhoek River (See Fig. 3.3). The planned access road for the future is indicated with the red line on Fig 3.3 (*pers. comm. City of Windhoek, 2021*).

3.3.4 SOLID WASTE DISPOSAL

Solid waste like paper, plastic, tins and bottles are generated at the residential house, offices and warehouses of these businesses. As per the regulations of the Solid Waste Management Division of the City of Windhoek (CoW) it is required to have a waste management system in place to be approved by the mentioned division of the CoW.

A waste management system is in place and approved by the City of Windhoek Solid Waste Management Division for both properties. Waste baskets, drums and wheelie bins are placed at strategic points on the premises and emptied into a Rent a Drum container on site. Rent-a-Drum removes the containers on a regular basis.

Photo. 3.3.9 *Wheelie bins for waste management*

Photo. 3.3.10 *Rent-a-Drum container*

Imperial Logistics undertakes to introduce recycling policies and practices and re-use, reduce and recycling can be initiated on these premises as well (*Imperial, 2021*).

3.3.5 SEWERAGE

No sewer, septic tank, pit latrine, VIP or French drain is allowed within 500 m of any private or production borehole (City of Windhoek, Town Planning Scheme). This also applies to watercourses and the Klein Windhoek River adjacent to the properties could be polluted.

Sewerage from Portions 18 and 22 of the Farm Brakwater No. 48 goes into septic tanks that are cleaned by Rent-a-Drum. There are two septic tanks for the house and offices on Portion 18 and another for the warehouse and ablution. The storm water and run-off from the workshop and wash bay also has the potential to pollute the groundwater and Klein Windhoek River and is therefore not allowed to enter it. This water is directed into this septic tank. A fourth septic tank is situated on Portion 22 of the Farm Brakwater No. 48 for the factory and its ablution.

The septic tanks each have a volume of 5,000l and consist of plastic. It is drained every second week by Rent-a-Drum and sewerage waste is exposed of at the City of Windhoek's facilities for hazardous waste.

Photo. 3.3.7 *Ablution and septic tank of Portion 18*

Photo. 3.3.8 *Ablution and septic tank Portion 22*

3.3.6 TELECOMMUNICATION INFRASTRUCTURE

Almost every property in the larger Brakwater area is connected to the fixed line network of Telecom Namibia expanding throughout Brakwater. Various base transmitter stations situated throughout the larger area provides wireless telecommunication access. Imperial makes use of Paratus as service provider.

3.4 ECONOMIC ACTIVITIES

WP Transport (PTY) Ltd. is a well-established and successful Namibian freight transporting company in operation since 2000. Imperial Logistics' Africa division acquired 60 percent of WP Transport in 2006 and the company grew steadily until the Imperial Group also acquired the remaining 40 percent. WP Transport is now wholly owned by Imperial Logistics' Africa division (*Matthew Staff*).

The majority of WP Transport's distribution network, under new management of Imperial Logistics, occurs cross-border in South Africa, Angola, Zambia, Botswana, Mozambique and Zimbabwe.

They also have transport contracts locally within national borders (*Imperial 2020*). The activities of WP Transport on Portion 18 are of an industrial nature. It involves the management and logistic arrangements of the truck transport business. The warehouse harbours offices, a workshop, a wash bay and filling station for trucks. Trucks are washed, serviced, repaired and filled on this property. Goods to be transported, including hazardous substances, are sometimes stored on site.

Photo. 3.4.1 *Wash bay and filling station*

Photo. 3.4.2 *Workshop area*

Imperial Logistics regulates its international businesses according to ISO 14001 standards and it is audited accordingly. This internationally accredited sustainable management system collates, processes, tracks and communicates data across all operations, covering owned, managed and leased sites. The system and ongoing improvements in data collection enable individual businesses in the Group to set environmental targets against reliable baselines. The system also allows their companies to share information on environmental issues and initiatives (*Imperial 2020*).

WP Transport (Pry) Ltd is now included in this group of companies and will conform to these standards. ISO 9001 standards is currently being implemented and this process is already initiated and on-going. (*pers. comm. Imperial Logistics*) A Safety, Health, Environment and Quality (SHEQ) Control Officer has been appointed on site for this purpose.

Cerebos Salt factory's activities on Portion 22 of the Farm Brakwater No 48 are also of an industrial nature that involves a salt packaging and distribution plant.

Photo.3.4.3 *Salt factory activities*

Photo. 3.4.4 *Packed salt storage area*

3.4.1 HEALTH, SAFETY AND SECURITY

The new Management of WP Transport is committed to ensure high standards for the health, safety and security of employees, assets and surrounding environment. An Emergency Preparedness and Response plan has been developed and implemented to provide a co-ordinated and professional response in an emergency to maintain a safe workplace. It represents a critical contingency plan that covers the following aspects of emergency management and response:

- Evacuation Procedure
- Injury or Medical Emergency Procedure
- Building Fire Procedure
- Vehicle Fire Procedure
- Vehicle Accident Procedure
- Hazardous Chemical Procedure Continues
- Snake Bite Procedure Continues
- Bee Attack Procedure
- Diesel Tank Fire/Explosion Procedure
- Flooding Procedure
- Robbery Procedure

Evacuation plans are posted throughout the premises to show where the first aid boxes, firefighting equipment and the assembly points are. The severity or complexity of the emergency shall dictate the level of implementation and involvement of other external parties in the overall management of an emergency (*Imperial Logistics, 2021*).

Photo 3.4.5 Example of safety signs on site

Photo 3.4.6 Fire extinguishers on site

3.4.2 TRAFFIC

WP Transport (Pty) Ltd operates a fleet of 50 trucks, mostly with superlink tautliner trailers. The fleet operates throughout Namibia, Angola, Botswana, South Africa, Zambia and Zimbabwe, travelling around 10 million km per year (*Imperial Logistics 2020*).

The truck drivers with heavy loaded trucks travel in and out of the Project Site on a scheduled basis. Office personnel of Imperial commute on a daily basis to and from the premises with own light transport and a daily bus service exists for labourers. Ample parking is available for personal vehicles.

3.4.3 EMISSIONS AND CARBON FOOTPRINT

Transportation activities contribute substantially to the carbon footprint of the planet. WP Transport (Pty) Ltd, under new management of Imperial Logistics, partnered with Scania Namibia, to replace their fleet with new generation trucks over two years. Data from the onsite Scania accredited workshop and the computers in the new trucks are used to compare emissions and fuel consumption between the new and the old fleet. The new fleet achieved 110 tonnes of emissions reductions, which includes nitrous oxide, particulate matter, hydrocarbons, carbon monoxide and CO_2. Scania's new technology means that service intervals have lengthened by around 30%, reducing truck down time, oil consumption and service waste (*Imperial Logistics, 2020*).

3.4.4 HAZARDOUS SUBSTANCES TO BE USED AND STORED ON-SITE

Hazardous substances are regarded by the Hazardous Substance Ordinance (No. 14 of 1974) as those substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. It covers manufacture, sale, use, disposal and dumping as well as import and export of hazardous substances.

When hazardous substances are transported or stored on Portion 18, they are to be handled, stored or transported according to the above regulations as well as those stipulated by the City of Windhoek. In addition, all Labour and Health and Safety Laws must also be adhered to.

3.4.5 POLLUTION

Ablution, run-off and storm water flows into septic tanks that are being drained by Rent-a-Drum on each property and disposed of at the hazardous waste facilities of City of Windhoek (See Section 3.3.5).

Both portions' activities have the potential to cause pollution to the Klein Windhoek River adjacent to it as well as ground water resources. Run-off from these properties can cause fuel -, hazardous waste and salt polluted water to enter the river and ground water. Storm water regulation is of utmost importance. All septic tank facilities must be constructed in accordance with the guidelines provided by the Department of Water Affairs and required standards stipulated in the City of Windhoek's Town Planning Scheme. Further information and recommendations can also be obtained from the South African Bureau of Standards (SABS/SANS, 1989).

A wastewater expert must inspect the existing septic tank facilities and verify that it meets the required standards. The septic tanks must also be inspected when empty for cracks or leaks. The Department of Water Affairs and City of Windhoek should be consulted to determine the make-up, volume and strength of the septic tanks for sewage as well as hazardous substances.


Photo. 3.4.7 *Run-off from the warehouse and wash bay are directed into the septic tank of Portion 18*

Solid waste pollution can also have detrimental impacts on aquatic organisms. A solid waste management plan is in place on both properties (See Section 3.3.4). No dumping of any waste on-site or in and around the riverbed.

3.4.6 SOCIO-ECONOMIC CONTRIBUTION

WP Transport (Pty) Ltd is a well-established Namibian company and provides employment for numerous employees since 2000.

WP Transport, under the new management of Imperial Logistics, currently employs 62 truck drivers, 33 general workers, 16 office personnel (which includes managers, admin and operations personnel) as well as 1 cleaner. This brings the total to 112 employees on site.

Cerebos further employs additional office personnel, factory workers and drivers on Portion 22 of the Farm Brakwater No.48.

The rezoning of these erven will ensure that socio-economic contribution to these people and their households is ongoing and sustainable.

3.5 SURROUNDING LAND USE AND DENSITY

The larger area of Brakwater has and is still undergoing a rapid transformation in land use and character. Industrial, commercial and business-like activities are concentrated along the central lying service corridors (A1 National Highway, TransNamib railway line; NAMWATER pipeline, and NamPower electricity grid) defined by the Klein Windhoek River to the east and the Brakwater Service Road (DR 1491) to the west, stretching along the A1 north to south. The servitudes of these bulk services takes-up a substantial amount of land adding to the land use and character of the surrounding area.

The densities of these industrial developments along the service corridor has increased in the past few years, but are still predominantly low compared to the industrial developments found within the Northern Industrial area of Windhoek situated about 10 km south from the Project Site.

Land uses within the immediate vicinity of the project site are mostly of an industrial nature. The sense of place can thus be characterised as being 'peri-urban' with an increasing dominance of industrial activities (Figure 3.4).

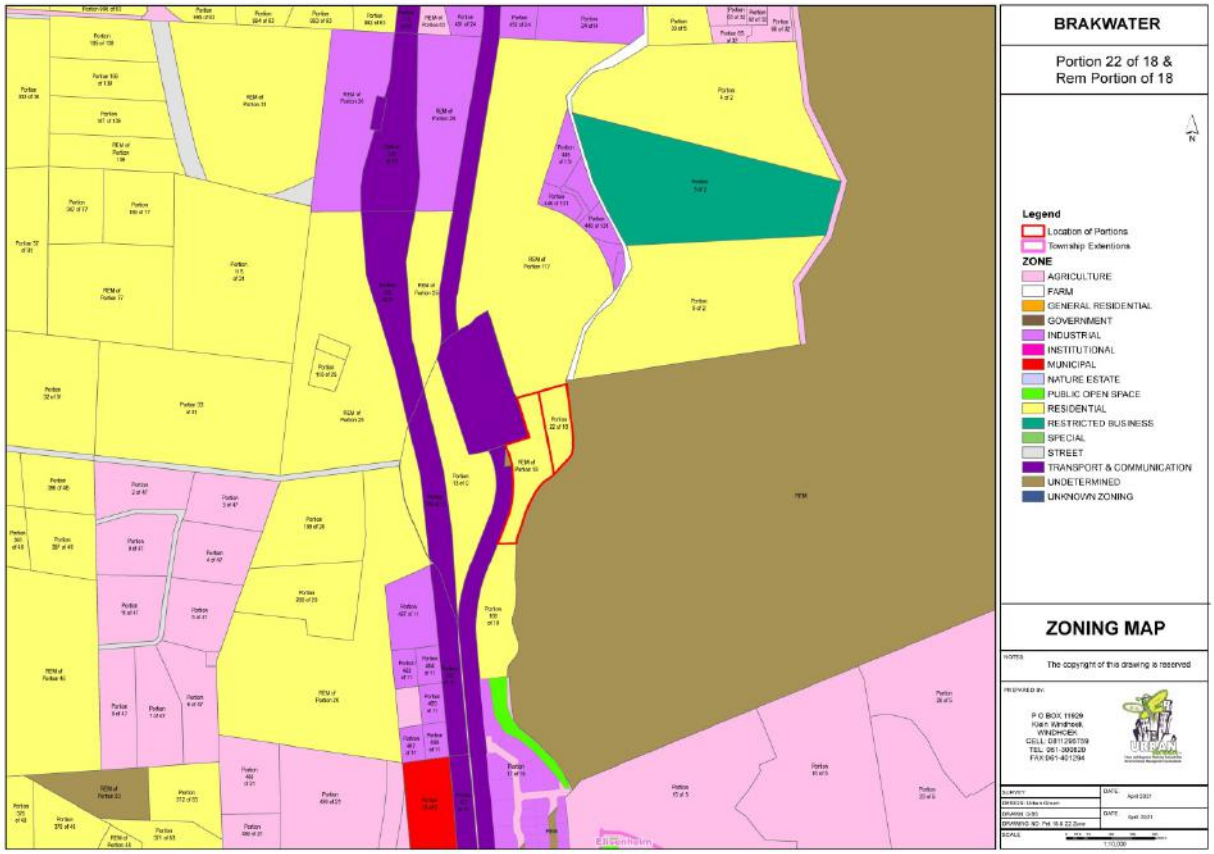

Figure 3.4 *– Land use map of the Project Site (Portions 18 and 22) and the surrounding area*

The properties north of the Project Site belong to NamPower where they established their Brakwater Depot.

Photo 3.5.1 *NamPower Brakwater Depot (viewed from the north)*

Photo 3.5.2 *NamPower Brakwater Depot (viewed from the west)*

The southern side of NamPower's property that borders the Project Site is used for its open camp storage facility where the wooden poles for powerlines and its maintenance are kept.

Photo 3.5.3 *NamPower open camp storage facility bordering the Project Site*

The property to the west belongs to TransNamib that accommodates the railroad and its servitude, including a servitude for a station. A piece of this property was made available by TransNamib to develop a brick factory. This factory is currently abandoned and not in use.

Photo 3.5.4 *Brick factory on TransNamib servitude that is not in operation*

Photo 3.5.5 *TransNamib railroad & servitude west of the Properties*

Far off to the north, north-east and east across the Klein Windhoek River are more industrial and business-like developments, including an Abattoir, Storage Container Yard, Döbra Industrial Estates, Woermann and Bröck Supermarkets' Central Distribution Centre, Wäldschmidt Eggs, another property of Imperial logistics as well as the Döbra Roman Catholic Mission.

Photo 3.5.6 *Businesses to the far east*

Photo 3.5.7 *Businesses to the north*

To the south are a few small holdings with residential buildings and livestock accommodation.

Photo 3.5.8 *Smallholdings to the south*

Photo 3.5.9 *Livestock kept to the south of the Project Site*

The land use directly neighbouring Portions 18 and 22 can thus be defined as 'industrial' and 'construction' to the north, 'industrial' to the east, residential and agriculture to the south and 'transport infrastructure' to the west. The Klein Windhoek River borders on the Project Site's eastern side (See Photo 3.5.10).

Photo 3.5.10 – *Klein Windhoek River next to the Project Site*

It is not expected that the rezoning will result in an increased density of the area given the distance to other activities and the amount of open areas still found in between.

3.6 VISUAL AESTHETICS

The properties are cleared of vegetation and developed for industrial activities and is not pristine anymore. No neighbouring sensitive visual receptors exist in close proximity from NamPower's southern side, the abandoned brick factory, railroad, A1 main road or far off industrial properties to the east.

Photo 3.6.1 *The Project Site is not visible from the A1*

Photo 3.6.2 *Riverine vegetation provides visual barrier between Project Site and Small holdings to the south*

The vegetation on the southern side of Portion 18 of the Farm Brakwater No. 48 provides a barrier between the Project Site and the smallholdings to the south thereof. A possible sensitive visual receptor could be houses on the closest north-western slopes of Elisenheim housing development, but this is too far off and the dense trees along the Klein Windhoek River hides the warehouses to some extent. Also, between the Elisenheim housing development and the Project Site, is the newly developed Brakwater Industrial Estate.

Photo 3.6.3 *Elisenheim housing development (houses on north western slopes)*

Photo 3.6.4 *Brakwater Industrial Estate*

3.7 ALTERNATIVES

Alternatives to the rezoning of Portions 18 and 22 of the Farm Brakwater No. 48 are the 'no-go' alternative or rezoning to 'business' use. Should the 'no-go' alternative be commissioned and the property remains residential, it would terminate the economic activities already going on for a few years. This would hamper development in the area and will not be in line with the nature of developments in Zone E of Brakwater Development Policy in the Windhoek to Okahandja corridor. 'Business' use may be considered, but it will also not allow the property to use its already developed potential in terms of industrial use.

3.8 PLANNING CONSIDERATIONS

Given the legal land use of the Properties and the requirements as per the Windhoek Town Planning Scheme (2012) it will be required to rezone the two Portions to provide for the industrial activities that are taking place on them. It must be taken into consideration that original development occurred on the Project Site previous to it being incorporated into the Windhoek Town Council's jurisdiction and it now needs to conform to its regulations.

Looking at the land use requirements as per the planning legislation of the City of Windhoek and the planning objectives of the Brakwater Development Policy, the proposed development corresponds to the planning framework. See Chapter 4.3 for further information.

4 LEGISLATION APPLICABLE TO PROPOSED REZONING

For environmental protection and sustainable renewable resource management to the benefit of all, legislation from different spheres under control of different ministries have been adopted and enacted by parliament. In support to the goal of sustainable renewable resource management, various international treaties and conventions have also been agreed to by Namibia.

There are several sectoral laws that fall under the general rubric of environmental laws. Sectoral laws are generally specific and apply to sectors such as water, works and transport, forestry, mining and so forth. Any development is expected to have certain impacts and would therefore have to comply with some or other legislative requirement/s before commencement. Several Namibian legislation and policies have environmental considerations with respect to the activities taking place on the two properties.

This chapter provides an overview to the legislation that is applicable to both the assessment process and the various activities that are undertaken on the two properties. It is accordingly divided into:

(i) the legal framework for environmental management in Namibia;

(ii) national sectoral legislative requirements applicable to the activities of the properties;

(iii) local authority legislation applicable to the jurisdictional area; and

(iv) other relevant legislation and approvals required for the continuation of the economic activities.

4.1 LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT

The legal framework for conducting an Environmental Assessment is listed in Table 4.1 below.

Table 4.1 *Legal Framework for Environmental Management in Namibia*

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
ENVIRONMENTAL ASSESSMENT LEGAL FRAMEWORK		
The Namibian Constitution (1990)	Article 95 (1) states that "*the State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at… maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of natural resources on a sustainable basis"* Article 100 stipulates that all natural resources are vested in the state, unless otherwise legally owned. The use of such resources is only allowed within reasonable limits and beyond such limits, permission should be obtained from a competent authority responsible for the use and	The rezoning and economic activities should support the provisions of the Namibian Constitution

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
	governance of the concerned natural resources.	
Environmental Management Act (No 7 of 2007)	Section 3(2) of the EMA provides a set of principles that give effect to the provisions of the Namibian Constitution for integrated environmental management. Section 27(3) stipulates that no party, whether private or governmental, can conduct a listed activity without an ECC obtained from the Environmental Commissioner. Section 40(1) stipulates that an ECC remains valid for a period not exceeding three years, subject to cancellation or suspension.	The development should adhere to the principles provided in the EMA. An ECC should be obtained for the development. The proponent should renew the ECC (if granted) every three years.
EIA Regulations 2012 (GG No. 4878 GN No. 29 and 30)	Provides for the process to be followed in undertaking an environmental assessment, stipulating particular requirements with regards to public consultation, the identification of impacts and establishing the significance thereof, as well as the content of an environmental scoping report. Of particular interest is the transfer of an ECC, which is regulated by section 20 of the EIA Regulations.	The EA process should be undertaken as prescribed in the EIA Regulations. Transfer of the ECC should be done as per the requirements, at the time when so required.

4.2 CROSS-SECTORAL LEGISLATION

The sectoral legislation applicable to the rezoning of and economic activities on the two properties are listed in Table 4.2 below.

Table 4.2 *Cross-sectoral legislation applicable*

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
NATIONAL SECTORAL LEGISLATION		
Local Authorities Act No. 23 of 1992, Government Notice No. 116 of 1992	Define the powers, duties and functions of local authority councils. Addresses water supply, sewerage and drainage, electricity and gas and other regulations within a town. Provide for incidental matters.	Regulations of the City of Windhoek must be adhered to and required licenses and permits must be obtained.
Water Act No. 54 of 1956, as amended,	Makes provision for a number of functions	The proponent should ensure that water use during

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
Water Resource Management Act No. 24 of 2004	pertaining to the management, development, control and use of water resources, water supply and the protection of water resources. Of importance is that the Act - • prohibits the pollution of underground and surface water bodies. • demand liability of clean-up costs after closure / abandonment of an activity. • Provides standards for the quality of treated water.	operational activities is as sustainable as possible and that no pollution of any above and/or below ground water resource takes place. If a wastewater treatment plant is installed it shall adhere to the General or Special Standards as per the Water Resources Management Act, 2004 (Act No. 24 of 2004). The same standards apply to the existing septic tank facilities.
Hazardous Substances Ordinance No. 14 of 1974, as amended	The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances and is administered by the Minister of Health and Social Services. Its primary purpose is to prevent hazardous substances from causing injury, ill health or the death of human beings.	During operations any hazardous waste needs to be handled, stored, and disposed of in a responsible manner and at appropriate waste sites.
Petroleum Products and Energy Act No. 13 of 1990, Government Notice No. 45 of 1990 Amendment of Petroleum Products Regulations: Petroleum Products No. 122 of 2016	Regulates petroleum industry Makes provision for impact assessment Petroleum Products Regulations (Government Notice No. 155 of 2000) prescribes South African National Standards (SANS) or equivalents for construction, operation and decommissioning of petroleum facilities (refer to Government Notice No. 21 of 2002)	Refilling facilities of the truck port on Portion 18 should meet the required standards.
Atmospheric Pollution Prevention Ordinance No 11 of 1976, as amended	Provides for the prevention of the pollution of the atmosphere. Part IV of this ordinance deals with dust control and provides for the proclamation of dust control areas.	Excessive dust emissions caused by trucks on the gravel access road and Project Site should be avoided as well as emission from fuel vapour, as it could be categorised as causing a public nuisance under common law.
Public Health Act No. 36 of 1919, as amended Health and Safety Regulations GN	Section 119 states that “no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	The proponent has a general obligation not to cause any nuisance, which may have an implication on human health.

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
156/1997 (GG 1617)		
Public and Environmental Health Act No. 1 of 2015, Government Notice No. 86 of 2015	• Provides a framework for a structured more uniform public and environmental health system, and for incidental matters. • Part 4 addresses sexually transmitted diseases. • Part 9 deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation.	Truck drivers should be educated and made aware of sexually transmitted diseases. A best practice wasted management system must be in place on both properties.
The Labour Act (No. 6 of 1992), Labour Act No. 11 of 2007, as amended and Government Notice 156 of 1997: Labour Act, 1992	Regulations relating to the Health and Safety of Employees at Work, governs working conditions of employees. These regulations are prescribed for among others safety relating to hazardous substances, exposure limits and physical hazards. Special consideration must be given to: • Chapter 3: Welfare and Facilities at Work-Places • Chapter 4: Safety of Machinery • Chapter 5: Hazardous Substances • Chapter 6: Physical Hazards and general provision	The proponent needs to comply with health and safety regulations pertaining to the health and safety of employees at work. Operational activities should not result in any potential negative health implications to the residents and/or larger community.
Road Traffic and Transport Act 52 of 1999 and its 2001 Regulations, as amended	Provides for the control of traffic on public roads and the regulations pertaining to road transport, including the licensing of vehicles and drivers. Part 5 of the 2001 Regulations lays out detailed provisions pertaining to vehicle loads – i.e. types of loads and the appropriate manner in which loads for different vehicle classes should be carried.	All personnel and vehicles active on site and/or public roads should be appropriately licensed. Materials/Goods transported should adhere to the requirements of the 2001 Regulations – i.e. should not exceed limits stipulated and should be transported in a safe manner.
Nature Conservation Ordinance No. 4 of 1975, as amended	Protects wild animals and indigenous plants. Prohibits disturbance or destruction of the eggs of huntable game birds or protected birds without a permit. Requires a permit for picking (the definition of "picking" includes damage or destroy) protected plants without a permit. Prohibits the removal of and transport of various protected plant species.	The Proponent should make sure that employees are aware of the regulations of this Ordinance. No snares, catching or killing of any animal species.

STATUTE	PROVISIONS	DEVELOPMENT IMPLICATIONS
Soil Conservation Act No. 76 of 1969, as amended	Prevention and combating of soil erosion; conservation, improvement and manner of use of soil and vegetation and protection of water sources.	Protected vegetation should be incorporated as part of the landscaping on the properties. Removal of *Prosopis* species should be combined with rehabilitation of indigenous species. Indigenous species include *Acacia erioloba*, *Albizia, anthelmintica, Ziziphus mucronata, Boscia albitrunca)* and is to be protected from damage and may not be removed for 100m on either side of the Klein Windhoek River.
Forest Act No. 12 of 2001, and its regulations	Provision for the protection of various natural and indigenous plant species.	
	Provides in section 10 of the Regulations that a person with access to state forest reserves may not introduce alien plant species or any invasive plant into state forest.	The Proponent has an obligation to remove the invasive *Prosopis* forest on the property.

While it has been set out to list all those laws and regulations, which regulate the healthy functioning of the environment, it is not necessarily complete and the proponent has the responsibility to make themselves aware of all applicable legislation and permit requirements applicable to the properties.

4.3 LOCAL AUTHORITY LEGISLATION

Other relevant local authority legislation and policies relevant to the proposed rezoning include, but are not limited to, the following:

4.3.1 WINDHOEK TOWN PLANNING SCHEME (2012)

Windhoek Town Planning Scheme regulates the use of land, controls development, restricts activities that may be undertaken and stipulates regulations within Windhoek Town Planning Scheme jurisdictional area. The following sections are applicable to the proposed rezoning of Portions 18 and 22 of the Brakwater No. 48:

9. Erection and use of buildings

(1) Table B specifies the primary, consent and prohibited uses in each zone where:

"Primary uses" are those uses for which buildings may be erected and/or used.

"Consent uses" are those uses for which buildings may be erected and/or used only with the consent of the Council

"Prohibited uses" are those uses for which buildings may not be erected and/or used.

Provided that:

(a) An existing building or an existing work which is not in conformity with the provisions of this Scheme relating to the erection and use of buildings and use of land, may be maintained and may be used for its existing use and that subject to the provisions of this Scheme, other than those relating to the erection and use of buildings and land, it may with the consent of the Council be altered or extended, upon the same site for the particular trade, business, industry or purpose for which it is being used : Provided that no such alteration or extension shall increase the floor space of the existing building by more than ten per cent (10%).

(b) If, in the opinion of the Council, it is essential to have a person or persons residing on the premises, the Council may consent to the use of a building or a portion of a building in use zones VII (Service Stations) *and VIII* (Industrial buildings and business buildings) *of Table B for the purpose of accommodation such person or persons and his or their households.*

(3) No person shall use or cause or allow to be used any building or portion thereof for a use other than that for which it has been erected unless such building has been altered for any such proposed new use and any necessary consent of the Council has been obtained therefor.

(4)(a) Should land or a building have been used or erected for a specific purpose before or on the first of October 1993 in respect of the area incorporated into the Scheme boundary in terms of Windhoek Amendment Scheme No. 23, or before or on the date of commencement of the Scheme for the remainder of the Scheme area, and such use or building not comply to the provisions of this scheme, but is otherwise lawful, the use of land or a building may be continued for that purpose as an "existing use" and will be deemed to conform to the requirements of this scheme.

(b) The right to use land or a building as contemplated in sub-clause 9(4)(a), expires after the lapse of a period of fifteen (15) years from the date when Windhoek Amendment Scheme Number 23 came into operation in respect of the area incorporated into the Scheme boundary in terms of Windhoek Amendment Scheme No. 23, and from the date when Windhoek Amendment Scheme Number 7 came into operation for the remainder of the Scheme area.

(5) On application by the owner, Council may consent to the changes in land use rights for erven as shown in Table B (Residential).

(6) Except with the consent of Council, no person or business selling alcoholic beverages in containers, selling alcoholic beverages for on-site consumption, selling petroleum, noxious or explosive products, or operating a storage or warehouse business, may operate from a “residential” or “general residential” zoned erf or from an erf with a bulk factor given in Table F of 0.4 or smaller.

11. Use of land

(1) The provision of clause 9(1) shall apply mutatis mutandis *in the case of the use of land, whether buildings are erected thereon or not: Provided that, subject to the provisions of clause 43, the Council may consent to the use of land with or without temporary ancillary and subordinate buildings, for uses for which buildings are prohibited in terms of Table B.*

(2) (a) Notwithstanding sub-clause 11 (1), no commercial vehicles with a gross vehicle mass of 9 000 kilogram and more may be parked on any erf between l9h00 and 07h00 without the approval of the Council except an erf 16 in use zone VIII (Industrial buildings and business buildings) *of Table B;*

*Provided that, subject to the provisions of clause 43 (*pertaining to advertisement and appeal in certain cases)*, the Council may grant permission for the use of land with or without temporary and ancillary and subordinate buildings for the aforementioned purposes, and subject to such requirements as the Council deems fit in connection with advertising in cases where application is made to park motor vehicles on any land*

(3) No person shall use or cause or allow to be used any land or portion thereof for a use other than provided for in this Scheme.

26 Danger to life, health and amenity

(1) No buildings may be erected on land which by reason of its situation or nature of the land would be likely to involve danger to life or danger or injury to health.

(2) No land shall be used and no buildings and structures be erected and/or used for purposes likely to involve danger of life, or danger to or the possibility of harm to health or serious detriment of the neighbourhood.

(3) No shop or building or premises of any sort which supplies fuel and lubrications directly into motor vehicles shall be permitted or erected on any erf unless the following conditions are met:

(a) The layout of facilities and design of entrances and egresses must be to the satisfaction and have been approved by Council.

(b) An effluent and waste disposal system to the satisfaction of Council has been provided which is adequate to handle all effluent and waste collected on the erf.

(c) No sales of fuel to commercial motor vehicles with a gross vehicular mass of 9 000 kilograms or more shall be permitted from erven other than erven in the "industrial" and "restricted business" zones and "business" zoned erven abutting on Sam Nujoma Drive, Hosea Kutako Drive, Krupp Street, and Mandume Ndemufayo Avenue without the permission of Council.

(d) The premises do not fall under any prohibition mentioned in Clause 29 or at any other place in this Scheme.

27. Removal of injurious conditions

(1) Where the amenity or groundwater or other environmental asset in any area is adversely affected by the condition of any building, land or curtilage, garden or by any activity taking place in the area, the Council may serve notice on the responsible person requiring him, within a specified period of not less than 28 (twenty eight) days from the date on which notice was served, to take such action as is necessary to eliminate the source of annoyance and, or remove any polluting agent and cause the ground to be rehabilitated to a condition that it was at prior to 24 being polluted or to a condition acceptable to Council.

29 Conservation of Natural Resources

(1) No trees known as Prosopis SPP shall be planted or permitted to grow on any erf.

(2) No structures may be erected and no activity may take place which may entail the direct or indirect alteration of the physical, chemical or biological properties of groundwater or pollution of groundwater in any other way so as to make it less fit for any beneficial purpose for which it may reasonably be expected to be used.

(3) No refuse, rubble or other hazardous substance that may pollute groundwater may be dumped except at a site designated by Council as a waste disposal site.

(4) Save with the approval of Council,

(a) No boreholes or wells may be sunk for the purposes of abstracting groundwater on any land located within the area of this Scheme;

(d) No storage tank or drum in excess of 200 litres or other similar type facility for a hazardous substance shall be installed, upgraded or replaced whether above or below ground;

(e) Flat drainage areas with or without discernible gradient that form the source of rivers or groundwater recharge shall not be destroyed, damaged or polluted in any way;

(h) No sewer, septic tank, pit latrine, VIP or French drain is allowed within 500 m of any private or production borehole.

(i) All septic tanks, pit latrines or VIPs must be emptied as required, and the waste removed to a municipal wastewater treatment facility.

(j) All sewers, septic tanks, pit latrines or VIPs must be inspected when empty for cracks or leaks.

(k) A 100 m buffer zone must be maintained at all times around production boreholes; No development or construction activities may occur within this buffer zone.

(l) All boreholes, whether private or production, located on private property must be capped and locked when not in use.

(5) No hazardous substance may be conveyed in quantities exceeding 200 litres to, from, or within the Area of the Scheme except in accordance with National Regulations and SANS 0228; 2003, SANS 0229: 1996, SANS 0230: 1997 and SANS 0231:2003)

(7) No watercourse including an "infiltration area" shall be used for any building or covered by an impermeable surface other than temporary buildings used in association with a park, garden or recreational area. The protection afforded by an infiltration area shall be applicable for a watercourse should it be 500 metre or more from its bounding watershed or should special topographical or flow conditions warrant earlier recognition.

(8) No area within a 1 in 50-year flood line shall be built upon or used for any purpose other than as park, a garden or a recreational area or for municipal services.

35. Drainage and stormwater

(1) No stormwater drainage pipe, canal, work or obstruction (except stormwater drain pipes, canal or works which have been authorized in writing by the local authority or which have been or may be built, laid or erected in terms of any law) may be constructed on or over the property or located in such a way that –

(a) the flow of stormwater from higher lying property to lower lying property is impeded or obstructed and through which any property is or may be endangered; or

(b) the flow of a natural watercourse (in which the local authority allows flood water to run off, be discharged or to be canalised) is or can be changed, canalised or impeded.

(c) the maintenance of such stormwater pipe, channel or work shall be the responsibility of the owner of the concerned property.

37. Drilling for water

(1) Except with the consent of the council and the Water Board it shall not be permitted to drill or excavate for water on any land.

44. Submission of drawings and particulars

(7) In all cases where application is made for rezoning, consent use, or subdivision for an area which includes an infiltration area for non-residential activities which could pose a threat of polluting the infiltration area, an environmental impact analysis to the satisfaction of Council, including an hydrogeological study, be submitted: (a) To assess groundwater vulnerability to pollution relevant to the proposed land-use, (b) To recommend conditions for the development, and (c) To fix the boundaries for any subdivision of developable erven along watercourses and other identified areas of groundwater vulnerability and to set the building lines for future buildings.

(8) An application made for rezoning, consent use, or subdivision in the vicinity of an infiltration area, conservation zone or other groundwater recharge area shall include full details of the proposed activities so as to enable Council to assess the groundwater vulnerability.

45. Council may impose conditions on granting consent

(1) In giving its approval, authority, permission or consent under any clause in this Scheme, Council may impose such conditions as it deems necessary, including conditions

relating to the management of the approved activity, such as an environmental management plan which outlines the processes and procedures for minimising or mitigating, or preventing the adverse effects of activities on the environment, inclusive of the possible pollution of groundwater recharge areas or 35 groundwater or both.

4.3.2 WINDHOEK TOWN PLANNING SCHEME TABLES

Windhoek Town Planning Scheme Tables describe land use reservations and zones, special land uses, coverage and development areas amongst others.

The Windhoek Town Planning Scheme tables provide for various land uses and activities allowed within certain areas of the jurisdictional boundary of the City of Windhoek. The mentioned scheme has the purpose of controlling development to ensure controlled and harmonious development to the benefit of both man and nature. The Project Site is located within an area of Brakwater that is surrounded by properties that were rezoned for industrial use.

4.3.3 WINDHOEK STRUCTURE PLAN

The Windhoek Structure Plan, 1996, aims at "*promoting the continued co-ordinated and harmonious development of Windhoek in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare, as well as efficiency and cost effectiveness in the process of development, the attraction of new investment and the improvement of communications*". It establishes principle guidelines for urban development and provides essential information for land use planning and environmental impact management within the Windhoek Basin. Applicable sections to the proposed rezoning of Portions 18 and 22 of the Farm Brakwater No. 48 are the following:

9. MUNICIPAL AREA & AREA OF EXPANSION

Windhoek is centrally located in the Khomas Hochland and lies in an approximately 10 kilometre wide valley. The valley is hedged in by mountainous terrain on the East and West and is closed in the South by the Auas Mountains. The valley runs for about 70 kilometres. To the North of the City the valley at Brakwater is about 13 kilometres wide and gradually broadens until it loses its distinctiveness as it reaches Okahandja, 80 kilometres away. Windhoek lies within the first 20 kilometres. It is partially confined in the North by an island of mountainous ground. The confined area is known as the Windhoek Basin. The Municipal Area covers the Windhoek Basin and the Brakwater area centred on the National A1 Road.

10. INFLUENCE OF LAND TRANSPORT ROUTES

The geography of the Khomas Hochland has also influenced transport routes and the location of the international airport. Roads and railway lines thread through hilly ground along the easiest paths to reach the Windhoek Basin. The two nearest towns to the City are Okahandja 70 kilometres to the North and Rehoboth, 90 kilometres to the South. The distribution of population in Namibia is heavily weighted towards the North. The City's major transport links to the coast run through Okahandja. These two factors combined with the Northern sources of the water supply naturally tilt urban settlement towards expansion along the main road to the North.

The location of Portions 18 and 22 of the Farm Brakwater No. 48 north of Windhoek directly next to the A1 main road makes it ideal for the transport business and industrial use.

4.3.4 BRAKWATER DEVELOPMENT POLICY (1995)

Following the incorporation of the larger Brakwater area (Farms Brakwater No 48, Döbra No 49, Elisenheim No 68, Emmarentia No 380 and Nubuamis No 37) as part of the jurisdictional area of the City of Windhoek, the Brakwater Development Policy Plan (non-statutory) was introduced in support to the Town Planning Scheme No. 23 of April 1995.

The 1995 Brakwater Development Policy Plan provides a 'land use zonation' which provides guidance to Council when confronted with applications for rezoning or for consent uses. It also gives general direction for the future use of land and infrastructural development in Brakwater. Development within each of the zones is controlled per a set criterion (Table 4.3).

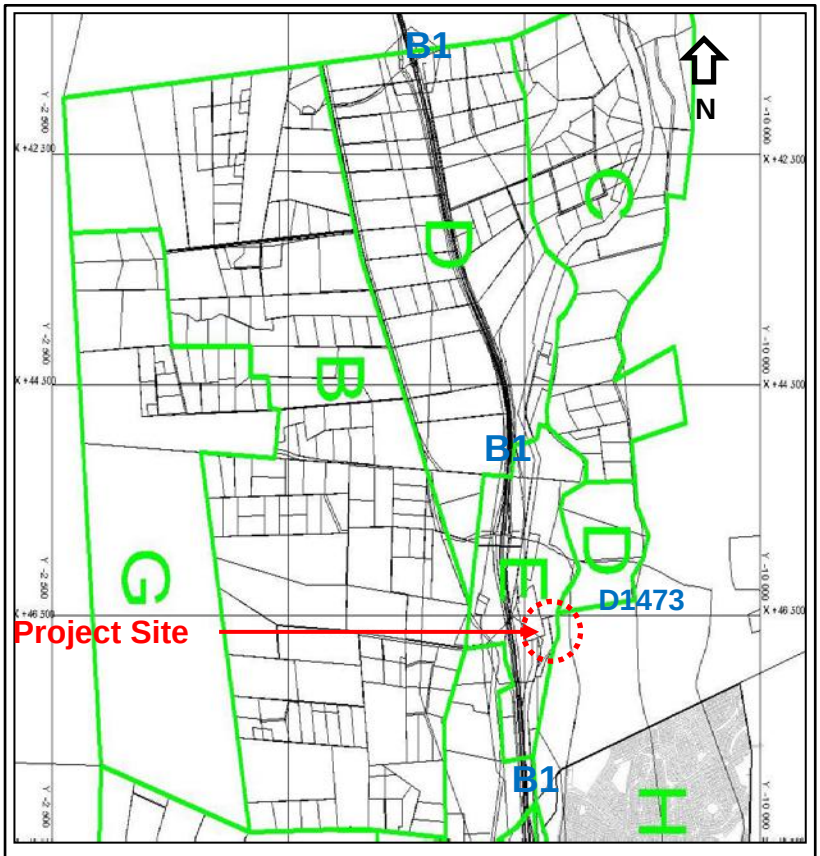

Figure 4.1 – *The eight development zones (Source: Brakwater Development Plan, 1995, as updated)*

Portions 18 and 22 of the Farm Brakwater No. 48 falls within the central parts of Development Zone E (Figure 4.1). Zone E falls within the flatter northern part of the study area and is relatively flat. The zone is drained by the Klein Windhoek River. The area is characterised by existing heavy industrial activities.

Table 4.3 below stipulates the development objectives, primary-, consent-, and prohibited land uses applicable in Zone E.

***Table 4.3** – Detail classification for Zone E*

ZONE E: THE INDUSTRIAL CORE	
Development objectives	Heavy Industrial development Commercial nodes can develop at strategic places Discourage residential development Encourage large scale industrial and commercial uses.
Dominant Land Use	Industrial
Development Intensity	An industrial bulk of 1.0 will be allowed. High density residential uses possible for labour housing
Subdivisions	Minimum erf size: 300 m²
Primary use	Industrial buildings and Business Buildings
Consent uses	Agricultural Residential buildings
Prohibited uses	Hotels and pensions
Infrastructure	New development to indicate how: sewer; water; and electricity will be provided Provision of services the responsibility of the developer. Services to be provided to municipal standards When subdividing, access should be provided to individual plots from roads maintained by the City.
Rezoning	Can be supported to: Higher intensity Industrial Business Office Proof of advertisements in two local newspapers and comments from affected plot owners need to be provided on application for the rezoning..
Conservation	Conserve water courses

4.3.5 BRAKWATER BULK SERVICES MASTER PLAN (2010)

This Services Master Plan provides for the longer term planning and development of bulk infrastructure (i.e. arterial roads, water and sewer) within the larger Brakwater area. For the immediate and short term, provision of services is the responsibility of the developer to be designed and constructed according the Municipal standards (*City of Windhoek Drainage Regulations (GN 208 of 1930*).

4.3.6 BUILDING REGULATIONS PROMULGATED BY G/N 57 OF 1969

These regulations controls building specifications and responsibilities of the owner of a property if development is undertaken. The following stipulations exist for the development that already took place on the properties:

8. APPROVAL OF PLANS

The Council shall signify its approval or disapproval of the plans submitted in accordance with regulation 6 or as regards the material to be used in connection therewith within twenty-eight days from the receipt of same unless any public holidays intervene, in which case the time shall be extended to thirty-five days.

BUILDING WITHOUT APPROVAL OF PLANS

25. (a) Any person who erects a building –

(i) without the plans or the material of the building having been approved by the Council, in accordance with regulation 8; or

(ii) in respect of which the approval of the plans by the Council has lapsed in terms of regulation 9, shall be guilty of an offence.

(b) The Council may under any of the circumstances mentioned in subregulation (a) serve upon the owner of any building referred to in the said subregulation as the case may be, an order requiring such owner forthwith to begin to demolish such building and to complete such demolition by or on a date to be specified in such order which date may be extended by the Council.

(c) If before the date for completion of the demolishing required by such order such owner satisfies the Council that he has complied with its regulations the Council may withdraw such demolition order. (d) If any owner fails to comply with an order referred to in sub-regulation (b) of this regulation, the Council shall be entitled to give effect to the terms of such order at the expense of such owner.

BULK FACTOR

29A. (a) Where a bulk factor is applicable to an area, mentioned in sub-regulation (c), no building which exceeds the bulk factor prescribed for such area, in sub-regulation (c) may be erected on any erf in such area, except a building for the exclusive or predominant purpose of providing parking for motor vehicles in which case the bulk factor will be prescribed by Council, if and when such building is being erected.

(b) For the purposes of these regulations, "bulk factor" shall mean the ratio of the total floor area to the area of the erf concerned, and "total floor area" shall mean the sum of the areas of all the floors at all floor levels of all buildings on such erf, including the area of all wall thicknesses, corridors, passageways, external and internal balconies or galleries, all lift and service wells, at each floor level, but excluding any floor area exclusively provided for the parking of motor vehicles.

(c) Sub-regulation (c) lays down bulk factors for different areas in the Windhoek Basin. According to the *Brakwater Development Policy* a bulk factor of 1.0 is applicable to the Project Site in Zone E.

4.3.7 CITY OF WINDHOEK'S DRAINAGE REGULATIONS (GN 208 OF 1930)

Address waste water and storm water drainage, providing guidelines with regards to installation and maintenance specifications and requirements.

4.3.8 WINDHOEK GROUNDWATER PROTECTION POLICY AND PROTECTION REGULATIONS

Has relevance to the potential negative impacts that waste, waste water and sewage disposal may have on groundwater quality, as well as the potential negative impacts that developments may have on streams and stream flow, both in terms of water quality and run-off characteristics.

4.4 PERMITS, LICENCES AND/OR APPROVALS REQUIRED

Given the activities undertaken on the properties, the following permits and/or licence (Table 4.4) may also be required:

Table 4.4 – *Permits and/or licence that may also be required*

Activity	Type of Permit / Licence	Legislation / Institute
Electricity connection to the Portion	Agreement is in place	NamPower
Water connection to the portion	Agreement is in place	NamWater
Access road on existing railway servitude linking up with the D1473 road.	Verify that approval is in place for current use.	Roads Authority is not applicable anymore, since Brakwater now forms part of Windhoek Town Council jurisdiction. City of Windhoek must provide special approval of current access road, since it is not according to their Urban Transport Master Plan.
Storage of more than 600 litres of Diesel on site (if applicable)	Consumer Installation Certificate with Puma is in place	Petroleum Product and Energy Act (Act No. 13 of 1990), as amended. Ministry of Mines and Energy
Water abstraction from borehole	Permit required	Water Resources Management Act (Act 24 of 2004) Department of Water Affairs and Forestry, Ministry of Agriculture, Water and Forestry.
Septic Tanks	Waste Water Discharge Permit required	Water Resources Management Act, 2004 (Act No. 24 of 2004). Department of Water Affairs and Forestry, Ministry of Agriculture, Water and Forestry.
Construction and operation of waste	Environmental Clearance	Water Resources Management Act (Act 24 of 2004) Department of Water Affairs and Forestry, Ministry of

water treatment facility	Certificate required	Agriculture, Water and Forestry. Department Infrastructure, Water and Waste Management. Bulk and Waste Water Division, CoW.
Treatment of effluent and discharged of treated effluent	Environmental Clearance Certificate required	Water Recourses Management Act (Act 24 of 2004) Department of Water Affairs and Forestry, Ministry of Agriculture, Water and Forestry and CoW
Quality of treated effluent	Permit	Water Resources Management Act (Act 24 of 2004) Ministry of Agriculture, Water and Forestry. Department Infrastructure, Water and Waste Management. Bulk and Waste Water Division, CoW.
Solid waste removal system	Contract in place with Rent-a-Drum	Department Infrastructure, Water and Waste Management. Solid Waste Management Division, CoW.
Change in land use	Environmental Clearance Certificate required	Windhoek Town Planning Scheme. Department of Planning, Urbanisation and Environment. City of Windhoek. Town Planning Ordinance (No. 18 of 1954). Namibia Planning and Advisory Board. Ministry of Regional and Local Government, Housing and Rural Development.

It would be the responsibility of the Proponent to confirm that all relevant permits and/or licences are in place and if not to obtain them where applicable.

5 RECEIVING ENVIRONMENT

Details with regards to the Status of the biophysical environment in and around the Project Site are presented in this section.

5.1 PHYSICAL ENVIRONMENT

5.1.1 CLIMATE

The Brakwater area is situated within the Khomas Hochland Plateau and has an arid climate typified by very hot and dry summers and moderate dry winters. The area has a fairly low frost potential, occurring more regular on the bottom of low-lying valleys within the Windhoek Basin.

The average annual rainfall for the area is 360mm while the average evaporation rate is approximately 3 400mm a year. Rainfall is erratic and unpredictable over the Khomas Hochland Plateau, with the highest rainfall months being January to March. Rainstorms do occur and may cause flooding. Run-off water from the truck port and salt storage space can cause pollution to the Klein Windhoek River and groundwater during heavy rains.

During winter months the average minimum temperature is 6˚C, while the average maximum daily temperature is 20˚C. Summers are hot with the average minimum temperature around 10˚C and the average maximum temperature around 31˚C (*Mendelsohn, 2002*).

Easterly winds predominate (22%) throughout the year, followed by westerly (12%) and north-easterly (10%) winds (*www.meteoblue.com*). Given the nature of the activities on site, winds may contribute to dust being directed in certain directions, having a potential nuisance to traffic along the A1, industrial operations towards the east and small holding residents to the south.

5.1.2 GEOLOGY AND SOILS

The bedrock geology of the area consists of Kuiseb Formation rocks (Swakop Group). The dominant lithology are biotite schist and quartz biotite schist. Other lithologies include micaceous quartzites and amphibole schist, metagreywacke, migmatites and minor serpentinite. Surface deposits are generally thin over much of the area (*Killick, 2000*).

Biotite schist is a moderately course-grained foliated crystalline rock with monoclinic biotite minerals known for its rather rapid rate of weathering, especially when exposed. The biotite schist's that underlie most of the City of Windhoek are intersected by a north-south running band of sand calcrete gravel and alluvium, especially along rivers and defined drainage lines (*Mendelsohn, 2002*).

Sand calcrete gravel is an unconsolidated surficial deposit consisting of sand and calcrete which acts as an infiltration medium for surface water and is known to be highly permeable. Along the larger drainages, such as the Klein Windhoek River thick alluvial deposits have developed particularly where the rivers are incised into the bedrock. The alluvium is a general term used to describe transported material such as riverine deposits. This feature has a significance as an infiltration medium. No pollution can therefore be allowed, as pollution plumes will easily disperse within this geology medium, especially after rains.

5.1.3 TOPOGRAPHY AND DRAINAGE

The larger Brakwater area is characterised by the rugged higher lying undulating mountainous zone situated to the east and west and the central lying lower lying lowlands. The Otjihavera mountain range forms the eastern boundary, while the Khomas Hochland (including the Nubuamis Mountain) forms the western boundary. Steep slopes exceeding 30° are characterized by exposure of rocky outcrops and patchy soil and vegetation, while the lowlands (5 – 30°) act as interface between the high altitude and the riparian alluvial fans that form the river system.

The larger Brakwater area is drained by four main drainage systems, namely the Klein Windhoek River, the Perlhuhn River and two smaller drainage systems, the Döbra and Aretaragas Rivers. These rivers have a natural northwards slope towards the Swakop River. They are ephemeral and natural flow occurs during the rainy period in the summer season, while dry for the rest of the year. The Döbra and the Klein Windhoek Rivers are central located and receives much of their inflows from the Otjihavera and the south-ward Auas mountain ranges, respectively. The Perlhuhn River receives much of its inflow from the immediate surroundings bordered by the A1, Nubuamis Mountain and Elefanten Mountain.

The Project Site is located central within this larger valley bounded by faults that form the Windhoek Basin. The properties are located on the western bank of the Klein Windhoek River. The north flowing Klein Windhoek River course is straight and appears fault controlled. The drainage forms part of the Swakop River catchment and downstream usage includes farm boreholes, the Swakop River alluvial aquifer and the Swakoppoort Dam. The Swakop River alluvium is located approximately 50 kms downstream, at the confluence of the Swakop and Klein Windhoek Rivers. The Swakoppoort Dam on the Swakop River is a further 40 km downstream and is used to augment supply to Windhoek, the Navachab Mine and Karibib town. The Klein Windhoek River catchment area contributes significantly to the Dam.

The topography of the two properties can be characterised as relatively flat forming part of the lowlands draining from the east to west towards the Klein Windhoek River next to Portions 18 and 22 of the Farm Brakwater No. 48.

Photo 5.1.1 *Klein Windhoek River next to Portion 22*

Photo 5.1.2 *Klein Windhoek River next to Portion 18*

5.1.4 HYDROGEOLOGY

The complex geology of the Windhoek area is a result of numerous folding and faulting episodes, including thrusting and rifting, to which the area has been subjected. The metasedimentary formations of the study area strike in an east-north-easterly direction and dip 15-35˚ to the north-northwest. A number of north-northeast-, northeast- and northwest striking faults and joints are found in the area forming the major underground water conduits for the area (*Miller, 2008*).

Two main aquifer types are found in the area, namely fractured aquifers hosted in the mica schist of the Kuiseb Formation, and the aquifers formed along the ephemeral rivers such as the Klein Windhoek and Perlhuhn Rivers, associated with the river alluvial. Groundwater potential is generally poor, but can be moderate along the river courses. If the alluvial thickness is significant, the groundwater potential can be high. In the greater Brakwater area, groundwater is used primarily for domestic and small-scale farming activities. A borehole on portion 18 extracts saline groundwater.

Recharge to the fractured Kuiseb Schist aquifers occurs through percolation during and after rainfall events, or by infiltration through riverbed alluvial by means of sub-surface groundwater flow or from surface run-off during times of flooding. Away from the river courses recharge is limited, resulting in elevated salinity of the groundwater. The river alluvium therefore forms an important recharge source to aquifers locally and downstream. The latter is considered to be the primary source of groundwater recharge in the Brakwater area.

Groundwater flows northwards, in a similar direction to the surface water flow. The calculated groundwater flow time for this distance through the mica schist is large - in the order of hundreds of years to thousand years. Surface flow and flow in the alluvial sediments is however more rapid and this being the concern for pollution transportation further downstream.

Consequently, activities on Portion 18 and 22 has the potential to pollute surface - and groundwater of the Klein Windhoek River, the surface - and groundwater of the Swakoppoort Dam as well as abstraction boreholes downstream through accidental spillage of hazardous products or salt.

5.1.5 FLOOD LINES

Flood line provisions for this area are not available from the City of Windhoek. (*pers. comm. Cornelius van der Merwe*) The Properties are situated directly on the banks of the Klein Windhoek River and can thus be subject to potential flooding. Storm water and run-off is directed towards the septic tanks with the ablution sewerage. These tanks are cleaned by Rent-a-Drum every second week. Mitigation measures for possible soil, surface- and groundwater pollution of the Klein Windhoek River from the workshop and filling station area must be in place.

5.1.6 WATER QUALITY

Water quality in the Brakwater area is generally poor due to high salinity. Previous studies by the CoW found that the Klein Windhoek River alluvium also contains saline groundwater. Borehole records show total dissolve solids (TDS) levels in excess of 3,500 mg/l. The origin of the salinity is not known, but the most likely sources are base flow discharge from fractured aquifers from surrounding mica schist.

The Klein Windhoek River has been highly polluted by upstream activities where it flows through Windhoek. No untreated waste water, polluted stormwater, sewerage or hazardous substances from the properties will be permitted to seep into the river.

5.1.7 CULTURAL, ARCHAEOLOGICAL AND HERITAGE

Windhoek played a central part in the historical evolution of Namibia as a Country. The area known as *Aie//gams* (hot springs or place of steam) was inhabited first by the Damaras, Hereroes and Namas long before German rule, followed by South African rule (*National Heritage Council Namibia 2013*).

Given this rich historical background of Windhoek it can be expected that the area of Brakwater and the area surrounding the study area might have had some historical role to play. However, the area of Brakwater is not known to have any historical significance prior or after Independence in 1990. The area also does not host any National Monuments.

No record of any cultural or historical importance or on-site resemblance of any nature could be located as part of this study.

5.2 BIO-PHYSICAL ENVIRONMENT

5.2.1 VEGETATION

The larger Brakwater area forms part of the *Thornbush Savannah, Tree and Shrub Savannah* or *Thornbush Shrubland*, as generally referred to. (Mendelsohn *et al.* 2002) This is the dominant vegetation type in Namibia and although it varies the typical form is grassveld interspersed with trees and large shrubs. The dominant tree species are *Acacia mellifera* with other species such as *A. reficiens*, *A. hebeclada*, *A. hereroensis, A. karroo, A. erubescens*, *A. erioloba*, *A. tortilis*, *Boscia albitrunca* and *Ziziphus mucronata* being common throughout (*Curtis and Mannheimer, 2005*). The dominant vegetation structure is thus *Acacia* shrublands.

5.2.1.1 Tree and Shrub Diversity

Between 66 and 83 species of larger trees and shrubs are known and/or expected to occur in the general Brakwater/Windhoek area. These include mainly *Acacia mellifera*, *Acacia reficiens*, *Acacia fleckii*, *Boscia albitrunca* and *Acacia erioloba*. 27 species of larger trees and shrubs (32.5%) in the general area have some kind of protected status. 5 species (6.1%) are endemic, 3 species (3.7%) near-endemic, 16 species (19.3%) protected by Forestry laws, 3 species (3.7%) protected by Nature Conservation laws with 3 species (3.7%) classified as CITES Appendix II species (*Curtis and Mannheimer, 2005*).

5.2.1.2 Grass Diversity

Up to 101 grasses are expected in the general Brakwater/Windhoek area of which 4 species are viewed as endemic (*Eragrostis omahekensis*, *Eragrostis scopelophila*, *Pennisetum foermeranum* and *Setaria finite*). *Pennisetum foermeranum* is associated with rocky mountainous terrain and consequently only expected in such suitable habitat. *Eragrostis omahekensis* is virtually only found on disturbed soils – e.g. close to watering points – while *Eragrostis scopelophila* is

associated with mountainous areas under trees and shrubs. The endemic *Setaria finita* is associated with drainage lines in the general area.

5.2.1.3 The Project Site

The properties have already been cleared of natural vegetation during previous construction, except for the southern portion of Portion 18 of the Farm Brakwater No. 48 that is outside the security fence. This area is mostly covered with *Eragrosti biflora* that grows under trees or in shady patches in disturbed places and *Prosopis* trees with solitary *Eucalyptus* trees here and there. Both tree species are alien invasive species.

Photo 5.2.1 *Natural vegetation on Portion 18*

The natural vegetation that exists outside the fenced area of Portion 18 of the Farm Brakwater No. 48 will not be affected by the rezoning, since further development and construction is not envisaged at this stage and does not form part of this EIA study. The rezoning is therefore not envisaged to cause any significant impact to the larger vegetation found on the property.

It is, however, noteworthy, to mention the excessive invasion of *Prosopis* trees in the project area along the Klein Windhoek River. *Prosopis* plants take over large areas of a river basin at the expense of local vegetation, which seems to have been totally outcompeted in this area. *Prosopis* densities have been increasing and it is believed that this is due to run off and the flow of the river during high rainfall months (*Auala, 2014*). It is ordered by the Windhoek Town Planning Scheme section 29 that these species be removed and may not be planted on site. It is the responsibility of the Proponent to remove these and it is recommended that these be replace with indigenous tree species.

Photo. 5.2.2 *Infestation of Prosopis trees along the Klein Windhoek River adjacent to Portion 18 and 22*

Photo 5.2.3 *Chopping of Prosopis trees should be encouraged and replaced with indigenous species.*

5.2.2 FAUNA

The *tree and shrub savannah* supports a variety of birds and ground dwelling animals. In the Brakwater area these are mostly limited to smaller rodents, hares and reptiles as larger mammals like steenbok, springbok, kudu and oryx have mostly been hunted and displaced by anthropogenic activities.

5.2.2.1 Avifauna

It can be expected that the riparian vegetation next to the properties provides habitat to a variety of bird species. The general area hosts 5 endemic, 3 vulnerable, 8 near threatened, 9 endangered and 1 critically endangered species (*Simmons, 2015*). Refer to Appendix C for a list of these.

The removal of the *Prosopis* species will influence habitat of bird and other fauna species, but the replacement of these with indigenous species will enhance the general condition of the riparian ecosystem.

5.3 SOCIO-ECONOMIC ENVIRONMENT

The Brakwater area as part of the capital city Windhoek, is located in the Khomas Region with the highest population density of 342 141 in Namibia. 95% of the population in this region lives in the urban areas of Windhoek. 73% of household income comes from Salaries and Wages and unemployment rate is 30%. This is lower than the unemployment rate of the other regions in the country. Literacy rate of people older than 15 years is highest in Khomas Region at 98.9% (*2011 Census*).

Following the inclusion of the Brakwater area as part of the municipal jurisdiction of Windhoek, some change in the socio-economic characteristics was evident. It started changing as more economic activities established within the area, mainly along the A1, and densification started taking place. This change was mainly brought on as a result of a shortage of developable land within the Windhoek basin and the resulting economic opportunities within the larger Brakwater area still having a prominent rural character.

Various economic activities established within the larger area following the Brakwater Development Policy Plan of 1995. The majority of properties were initially developed as residential properties (subdivisions or township establishment) with some engaged in small or medium scale agricultural activities such as raising livestock (cattle, sheep, goats, horses, and poultry) or small scale cropping or vegetable production. These are generally secondary activities for many residents whose source of income usually lies elsewhere. Over the last few years the area changed as more industrial development took place in the central Brakwater area. Increased residential densification and industrial developments linear along the Klein Windhoek River and A1 national road are the most prominent changes taking place within the larger area.

Photo 5.3.1 *Area just north of the project site east of the A1*

Photo 5.3.2 *Area opposite the project site west of the A1*

The surroundings of the project site are mostly engaged in industrial activities such as Döbra River Industrial Estate and Brakwater Industrial Estate, Woermann and Bröck Central Distribution Centre.

A number of properties in the Brakwater area are engaged in various tourism ventures such as providing lodge accommodations and conference facilities. There are a number of institutional uses such as convents and mission residences/facilities, a wildlife rehabilitation and research centre as well as a police camp and rehabilitation centre for drug and alcohol abuse. Other more industrial like land uses include taxidermy, the Bokomo Mills, Feedmaster, warehousing, sand mining, brick manufacturing, automotive engineering and various other activities of an industrial or commercial nature.

All properties have access to services (i.e. potable water, electricity, roads, and sewer), either provided by the authorities (i.e. NamWater, NamPower, City of Windhoek) or self-provided, except for the informal settlement of Mix Settlements. Access to institutional services (i.e. schools, clinics, police, etc.) is available in the larger Brakwater, but most of the residents depend on these services situated in Windhoek.

6 PUBLIC PARTICIPATION PROCESS

Public consultation and participation are an important aspect of an EA process. During public consultation, potential impacts that the proposed project may have on the natural and/or socio-economic environments, were identified from the side of interested and affected parties. Consultation with Interested and Affected Parties (I&APs) and relevant Authorities enables transparent decision-making.

This chapter describes in detail the full extent of the public consultation process that was followed and the I&APs and authorities that were notified of the study being undertaken. It also includes the main issues and concerns raised during the public consultation process and comments received on the Background Information Document (BID) distributed during the first round of public consultation.

Public consultation for the purposes of this project was done as prescribed by Regulations 21 to 24 of the Environmental Impact Assessment Regulations (GN. 30 of 2012).

6.1 PUBLIC ENGAGEMENT

6.1.1 FIRST ROUND OF CONSULTATION

Engagement with the public and authorities as part of the first round of public consultation commenced on the 11th of May 2021 and concluded on the 9th of June 2021. During the first round of consultation, I&APs and authorities were given an opportunity to register and submit comments and/or concerns on the proposed project.

6.1.1.1 Activities of Public Engagement

Activities undertaken to date to ensure effective and adequate I&AP involvement, are as follows:

- A list of predetermined I&APs and authorities was compiled. A total of 47 I&APs were included on the database (Appendix D1).
- A notification email (Appendix D2) with Background Information Letter (BIL) (Appendix D3) was send to all pre-identified I&APs and authorities (Appendix D1) on 11 May 2021.
- Notification letters (Appendix D4) with BIL (Appendix D3) was hand delivered on 12 May 2021 (Appendix D5) to line ministries, State Owned Enterprises, Regional and Local Authorities situated in Windhoek (Appendix D1).
- Notification letters (Appendix D6) with BIL (Appendix D3) was sent via registered post (Appendix D7) to the neighbouring farm/property owners (Appendix D1) on 11th of May 2021.
- Public notices announcing the commencement of the EA and an invitation to register as an I&AP were placed in the ‘New Era’ and ‘The Namibian’ newspapers on 11 May 2021 and 19 May 2021 (Appendix D8).
- A notice board (with the dimensions 60cm x 42cm) was placed at the Khomas Regional Council (Appendix D9) and at the Windhoek Municipality Customer Care Centre notice

board (Appendix D10). An On-site notice was placed at the entrance to Portion 22/18/48, Farm Brakwater (Appendix D11).

6.1.1.2 Comments Received and Responses Provided

All comments and feedback received from I&APs and Authorities are summarised in Table 6.1 below, while a copy of the original correspondence is attached as Appendix D12. A total of 7 I&AP were registered (Appendix D13).

Table 6.1: Comments received during the first round of public consultation

NO.	NAME	COMMENTS	NAME	RESPONSE
1.	Windhoek Rural Constituency Office – Control Admin Officer Mr Usiel Mbinge (12/05/2021)	Noted with thanks	Urban Green cc	
2.	Ministry of Urban and Rural Development Mr Frieda Sindano (12/05/2021)	Dear Mr. van Zyl We acknowledge, with thanks, receipt of your letter dated 12 May 2021 on the above-captioned (Ptn Rem 18/16/48, Farm Brakwater) subject matter. Your letter has been forwarded to Mr. Big Don Kondunda, Director: Habitat and Housing Development for attention and action. Mr. Kondunda can be reached at 061 297 5062/5017 and email dkondunda@murd.gov.na Regards, Frieda Sindano Ministry of Urban and Rural Development Tel: 061-297 5181 Fax: 061-258131 Email: fsindano@murd.gov.na	Urban Green cc (12/05/2021)	Dear Ms. F. Sindano, Your email below refers. Noted, thank you. Regards Brand van Zyl
	Ministry of Urban and Rural Development	Dear Mr. van Zyl We acknowledge, with thanks, receipt of your	Urban Green cc	

NO.	NAME	COMMENTS	NAME	RESPONSE
	Mr Frieda Sindano (12/05/2021)	letter dated 12 May 2021 on the above-captioned (Ptn 22/18/48, Farm Brakwater) subject matter. Your letter has been forwarded to Mr. Big Don Kondunda, Director: Habitat and Housing Development for attention and action. Mr. Kondunda can be reached at 061 297 5062/5017 and email dkondunda@murd.gov.na Regards, Frieda Sindano Ministry of Urban and Rural Development Tel: 061-297 5181 Fax: 061-258131 Email: fsindano@murd.gov.na	(12/05/2021)	
	Ministry of Urban and Rural Development Mr Frieda Sindano (19/05/2021)	Dear Mr. van Zyl We acknowledge, with thanks, receipt of your letter dated 19 May 2021 on the above-captioned subject matter. Your letter has been forwarded to Mr. Big Don Kondunda, Director: Habitat and Housing Development for attention and action. Mr. Kondunda can be reached at 061 297 5062/5017 and email dkondunda@murd.gov.na We will appreciate the acknowledgement of our emailed communication. Regards,	Urban Green cc (20/05/2021)	Dear Ms. F. Sindano, Your email below refers. We acknowledge receipt of your email below. Regards Brand van Zyl

NO.	NAME	COMMENTS	NAME	RESPONSE
		Frieda Sindano Ministry of Urban and Rural Development Tel: 061-297 5181 Fax: 061-258131 Email: fsindano@murd.gov.na		
3.	Namwater Ms Jolanda Kamburona (19/05/2021)	Dear Brand, Thank you for the BID. Please register NamWater as an I&AP with the following contact details: NP du Plessis Plessisn@namwater.com.na 081 127 9040 Jolanda Kamburona KamburonaJ@namwater.com.n 081 144 1528 NamWater has the following comment: 1. The proponent should ensure that there is proper management and treatment of both surface and waste water, as the farm is located within the Swakoppoort Dam catchment. And please forward all relevant documents to us. Regards, Jolanda	Urban Green cc (19/05/2021)	Dear Jolanda, Your email below refers. Namwater has been registered as an I&AP on this study and will be kept informed. Your comment/concern is noted. Regards Brand van Zyl
4.	Transnamib Mr	Hi, Reference is made to the attached letter.	Urban Green	Dear Mr. D. Tjombe, The email communication below with reference to Ptn 16

NO.	NAME	COMMENTS	NAME	RESPONSE
	Mberipura Hifitikeko (07/06/2021)	We would like to register as an I&AP. Mr. David Tjombe (copied in the email) will be our point of contact. He is also reachable on 061-298 2370/0813447899/0811226135. We will also appreciate if we can set up a meeting with yourself and your client WP Transport to discuss matters pertaining to the property. Do let us know should you require further information. Kind regards, Mberipura Hifitikeko Executive: Corporate Services Tel: +264 61 298 2198 |Mobile: +264 811 285 849 | Mberipura.Hifitikeko@transnamib.com.na | www.transnamib.com.na	cc (08/06/2021)	refers. To enable us to communicate your request to WP Transport, can you please explain the purpose of the meeting? Should there be any further questions/comments, please feel free to contact us? Regards Brand van Zyl
	Transnamib Mr Mberipura Hifitikeko (08/06/2021)	Hi Brand, There are safety and compliance issues pertaining to the distance of the property from the Railway line. That will form the main basis for our discussion and we can also provide our comments on the EIA at the same time. Thanks. Mberipura Hifitikeko Executive: Corporate Services Tel: +264 61 298 2198 |Mobile: +264 811 285 849 | Mberipura.Hifitikeko@transnamib.com.na | www.transnamib.com.na	Urban Green cc (08/06/2021)	Dear Mr. M. Hifitikeko, We will inform WP Transport of your request and find a suitable time suiting everyone's' schedule. PLEASE NOTE THAT SHOULD YOU HAVE COMMENTS FOR PURPOSE OF THE ENVIRONMENTAL STUDY, THOSE SHOULD BE SUBMITTED WITH OUR OFFICE NOT LATER THAN TOMORROW (9 JUNE 2021) BY CLOSE OF BUSINESS FOR INCLUSION INTO THE SCOPING ASSESSMENT. The scoping assessment can unfortunately not wait for a

NO.	NAME	COMMENTS	NAME	RESPONSE
				day and time when a meeting is possible between all the respective parties. PLEASE FORWARD US TRANSNAMIB'S COMMENTS ON THE ENVIRONMENTAL ASSESSMENT BEFORE CLOSE OF BUSINESS TOMORROW (9 JUNE 2021). Regards Brand van Zyl
	Transnamib Mr Mberipura Hifitikeko (08/06/2021)	Dear Brand, We only received your letter on Monday and I think it is unfair that we are expected to respond by tomorrow. Our discussion with your client (WP Transport) has a huge bearing on the rezoning so I would really be worried if you would want to rush this. Meripura Hifitikeko Executive: Corporate Services Tel: +264 61 298 2198 |Mobile: +264 811 285 849 | Mberipura.Hifitikeko@transnamib.com.na | www.transnamib.com.na	Urban Green cc (08/06/2021)	Dear Mr. Hifitikeko, See attached, the deliver was made to Transnamib on 12 May already. Regards Brand van Zyl
	Transnamib Mr Mberipura Hifitikeko (09/06/2021)	Hi Brand, Not sure why I received it so late but that is an internal matter. Considering that the due date is today, can we have an extension till Friday? In the meantime, please arrange a meeting with your client.	Urban Green cc (09/06/2021)	Dear Mr. Hifitikeko, Friday would be fine thank you. I have requested a meeting date and time from WP Transport and will let you know.

NO.	NAME	COMMENTS	NAME	RESPONSE
		Thanks, Mberipura Hifitikeko Executive: Corporate Services Tel: +264 61 298 2198 |Mobile: +264 811 285 849 | Mberipura.Hifitikeko@transnamib.com.na | www.transnamib.com.na		Regards Brand van Zyl
	Transnamib Mr Mberipura Hifitikeko (09/06/2021)	Thanks Mr. Tjombe will be in touch. Mberipura Hifitikeko Executive: Corporate Services Tel: +264 61 298 2198 |Mobile: +264 811 285 849 | Mberipura.Hifitikeko@transnamib.com.na | www.transnamib.com.na	Urban Green cc	

7 ASSESSMENT OF ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

This chapter provides a description and assessment of the key potential impacts associated with the proposed rezoning. Mitigation measures relevant to the operations as appropriate are recommended. These measures are aimed at avoiding, minimising or rehabilitating negative impacts or enhancing potential benefits. The significance of potential impacts without and with mitigation is also provided.

The Environmental Assessment Process consisted of two phases, the first being the screening phase and the second the scoping phase, as explained below.

7.1 SCREENING PHASE METHODOLOGY

Each of the potential impacts identified during public consultation and the scoping assessment was screened according to a set of questions (Figure 7.1), which resulted in highlighting the key impacts requiring further assessment.

This list of impacts that were subjected to a scoping assessment is presented in Table 7.2, as per the evaluation criteria presented in Table 7.1.

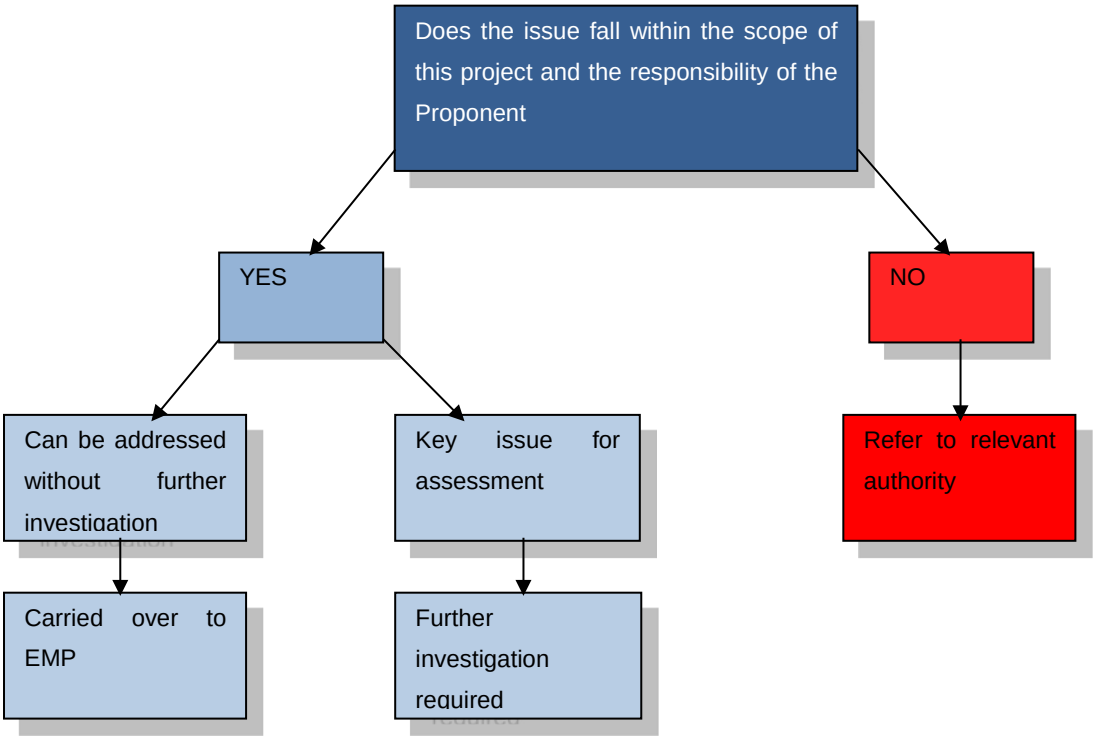

Figure 7.1: *Screening process for determining key impacts*

7.1.1 POSITIVE IMPACTS:

The following positive impacts where identified during the screening process and should be mentioned for consideration during the Environmental Assessment:

7.1.1.1 Rezoning is in line with Planning Considerations for the area

Rezoning would convey the land use that the properties are used for and is in line with the City of Windhoek's planned land use in the area. The significant impact can therefore be rated as being ***positive***.

7.1.1.2 Socio-Economic Benefits

Given the high unemployment rate in Namibia and especially in the Capital City the businesses on the properties are expected to have both a direct and indirect, short and long term positive impact on the local socio-economic conditions of Windhoek. The socio-economic benefits associated with the rezoning will involve continuation of job creation to drivers, general labourers and office personnel on Portions 18 and 22 of the Farm Brakwater No. 48. This will directly contribute economically to households and extended family and indirectly to economic activities within the Windhoek area.

The rezoning of the properties will ensure that these economic activities may proceed sustainably. The significant impact can therefore be rated as being ***positive***.

7.1.1.3 Ecosystem and Biodiversity

Both properties have already been developed some years ago and the natural ecosystem is not pristine any more. Although no immediate threat to biodiversity in the area is expected due to the proposed rezoning, uncontrolled pollution may and can cause damage to any biodiversity surrounding the site. This issue is addressed in Section 7.5.2.1 of this report as well as in the EMP (Appendix D).

The riparian ecosystem on and next to the Project Site is currently invaded by *Prosopis* species that spread along the Klein Windhoek River over a couple of years. It is advised that the Proponent remove all *Prosopis* trees on the Project Site and next to it in the riverbed and replace them with indigenous species. It is stipulated by regulations of the City of Windhoek and would show environmental sensitivity and commitment of the Proponent. This contribution will have a ***positive*** impact on the riparian ecosystem and biodiversity of the area.

7.1.2 IMPACTS ASSESSED WITHOUT FURTHER INVESTIGATION

7.1.2.1 Change in Land Use

Portions 18 and 22 of the Farm Brakwater No. 48 is currently zoned for 'residential' purposes, but has been developed and used for 'industrial' purposes for some years now. It is situated within an area no longer having a prominent residential nature, but are rather associated with an increase in 'industrial' type activities. The Property falls within Development Zone E (see Section 4.3) earmarked for 'Industrial Core'. It can be expected that this change in land use (residential to industrial) will have a neutral impact on the land and immediate surroundings.

From an economic perspective the change in land use will increase the value of the land given the development potential. The proposed rezoning will ensure consistent creation of employment resulting from continued economic activities.

An indirect negative impact may occur should the activities cause any environmental degradation and/or pollution as a result of poor operational practices. This will be addressed in the Environmental Management Plan.

To change the land use will cumulatively contribute to the already changed 'sense of place' from low density residential to industrial/ business. The impact therefore would be of ***no*** significance.

7.1.2.2 Visual Aesthetics and Sense of Place

Due to the general area no longer being predominantly 'residential' or 'subsistence agriculture' in nature, but rather 'infrastructure' and 'industrial', the sense of place can be characterised as being 'peri-urban' with an increasing dominance of industrial and or business type activities. Also the existence of various bulk infrastructure (i.e. A1 National Highway, TransNamib railway line, NamPower transmission lines and substation, NAMWATER bulk pipeline) and other development activities in the immediate vicinity of the property, minimises its overall pristineness.

The properties are cleared of vegetation and developed for industrial activities. No neighbouring sensitive visual receptors exist in close proximity from the NamPower Brakwater Depot's southern side, the abandoned brick factory, railroad or industrial properties further to the east. The Project Site cannot be seen from the A1 main road. The natural vegetation on the southern side of Portion 18 provides a barrier between the Project Site and the smallholdings to the south thereof. A possible sensitive receptor could be houses on the closest north-western slopes of Elisenheim housing development, but this is too far off and the dense trees along the Klein Windhoek River hides the warehouses to some extent. Also, between the Elisenheim housing development and the Project Site, is the newly developed Brakwater Industrial Estate.

The rezoning of the properties will not have an impact on visual aesthetics and it would therefore be of ***no*** significance.

Removing invasive *Prosopis* species will have an impact on the visual aesthetics and it is important that these be replaced with indigenous tree species to help screen the development within the landscape.

7.1.2.3 Natural Resources

Water is one of the city's most limiting resources and represents a constraint for sustainable development in future. Consumption will increase with development and the soaring influx of people to the city. Water must be used conservatively and strict monitoring and management is required.

The activities of the truck port and salt factory have already been carried out for some years now and water usage is approximately 400 m^3 per month. Electricity usage is approximately 170 A per month. Rezoning will not cause an increase in current water or electricity use.

The rezoning of the properties is not expected to have a new impact on the natural resources, and is thus regarded as ***insignificant***. Recycling and reuse of treated waste water or rain water for purpose of the wash bay and dust suppression should be investigated and implemented. Energy saving mechanisms and water wise methods should be applied to limit resource use in future.

7.2 SCOPING ASSESSMENT METHODOLOGY

The key impacts, identified after carrying out screening (see Section 7.1 above), were evaluated in terms of extent (spatial scale), duration (time scale), intensity (magnitude) and probability. The means of arriving at the different significance ratings is explained in Table 7.1 below.

These criteria are used to ascertain the *significance* of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The significance of an impact is derived by considering the temporal and spatial scales and magnitude. Such significance is also informed by the context of the impact, i.e. the character and identity of the receptor of the impact.

7.3 METHOD OF ASSESSMENT

The possible identified impacts of the proposed development on the receiving environment were evaluated in terms of extent (spatial scale), duration (time scale), intensity (magnitude), probability and status, in combination providing the expected significance (Table 7.1).

The magnitude of an impact is a judgment value that rests with the individual assessor while the determination of significance rests on a combination of the criteria for duration, extent and magnitude.

Table 7.1 – *Impact Assessment Criteria*

CRITERIA	CATEGORY
Impact	This is a description of the expected impact
Nature Describe type of effect	**Positive**: The activity will have a social / economical / environmental benefit. **Neutral**: The activity will have no effect **Negative**: The activity will have a social / economical / environmental harmful
Extent Describe the scale of the impact	**Site Specific:** Expanding only as far as the activity itself *(onsite)* **Small:** restricted to the site's immediate environment within 1 km of the site *(limited)* **Medium:** Within 5 km of the site *(local)* **Large:** Beyond 5 km of the site *(regional)*
Duration Predicts the lifetime of the impact.	**Temporary:** < 1 week **Short-term:** < 1 month **Medium term:** < 1 year **Long-term:** 1-10 years (Impact will stop after the operational or running life of the activity, either due to natural course or by human interference) **Permanent:** ≥ 10 years. Impact will be where mitigation or moderation by natural course or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary

Intensity Describe the magnitude (scale/size) of the Impact	**None:** Affects the environment in such a way that natural and/or social functions/processes are not affected **Low:** Natural and/or social functions/processes are slightly altered **Medium:** Natural and/or social functions/processes are notably altered in a modified way **High:** Natural and/or social functions/processes are severely altered and may temporarily or permanently cease
Probability of occurrence Describe the probability of the Impact actually occurring	**Improbable:** Not at all likely **Probable:** Distinctive possibility **Highly probable:** Most likely to happen **Definite:** Impact will occur regardless of any prevention measures
Degree of Confidence in predictions State the degree of confidence in predictions based on availability of information and specialist knowledge	**Unsure/Low:** Little confidence regarding information available (<40%) **Probable/Med:** Moderate confidence regarding information available (40-80%) **Definite/High:** Great confidence regarding information available (>80%)
Significance The impact on each component is determined by a combination of the above criteria.	**None:** A potential concern which was found to have no impact when evaluated **Low:** Impacts will be site specific and temporary with no mitigation necessary. **Moderate:** Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures. **High:** Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.

7.4 MITIGATION APPLICATION METHODOLOGY

There is a hierarchy of actions which can be undertaken to respond to any operational activity. These cover avoidance, minimisation and compensation. It is possible and considered sought after to enhance the environment by ensuring that positive gains are included in the development. If negative impacts occur then the hierarchy, as a guiding philosophy, recommends the following steps.

Impact avoidance: This step is most effective when applied at an early stage of project planning. It can be achieved by:

1. not undertaking certain actions or elements that could result in adverse impacts;

2. avoiding areas that are environmentally sensitive; and

3. Putting in place preventative measures to stop adverse impacts from occurring.

Impact minimisation: This step is usually taken during impact identification and prediction to limit or reduce the degree, extent, magnitude, or duration of adverse impacts. It can be achieved by:

1. scaling down or relocating the proposal;

2. redesigning elements of the project; and

3. Implementing mitigation measures to manage the impacts.

Impact compensation: This step is usually applied to remedy unavoidable residual adverse impacts. It can be achieved by:

1. rehabilitation of the affected site or environment, for example, by habitat enhancement;

2. restoration of the affected site or environment to its previous state or better; and

3. Replacement of the same resource values at another location (off-set), for example, by wetland engineering to provide an equivalent area to that lost to drainage or infill.

7.5 POTENTIAL IMPACTS IDENTIFIED AND ASSESSED

The information presented in this section has mainly been drawn from the Proponent's information regarding the current activities, the assessment conducted by the EAP and public consultation undertaken. The status of all potential impacts described and assessed below should be considered to be negative unless indicated otherwise.

Given the intended rezoning to 'industrial use' and continued economic activities on the Project Site and the immediate and surrounding natural environment, the following impacts can possibly be expected. All mitigation measures can be found within the Impact Assessment Tables below.

7.5.1 CONSTRUCTION-RELATED IMPACTS

No further construction is envisaged on the two properties at this stage and is not included in this EIA. Construction took place some years ago under previous management and the EAP was not involved during this process.

7.5.2 OPERATION-RELATED IMPACTS

Details with regards to the potential impacts expected during the operational activities on the properties are discussed in this section. Mitigation measures and environmental requirements having direct relevance to the expected operational activities' impacts are presented in the tables below.

Table 7.2 below presents the potential impacts expected to occur during the Operational Phase of the development, while Table 7.3 to Table 7.7 presents the outcome of each.

A Management Plan is provided for the Operational Phase, which takes into consideration possible mitigation measures suggested as well as recommendations.

***Table 7.2** Potential Impacts during Operational Phase:*

IMPACT	CAUSE
Soil, Surface and Ground Water Pollution	Hazardous substance accidental spillage or leaks
	Hazardous substance disposal
	Usage of water for truck washing and dust suppression and generation of waste water
	Storm water management
	Sanitation leakages
	General waste pollution
Health, Safety and Security	Dust and Emissions
	Fire
Traffic safety	Heavy vehicle movement on site and on public roads
Noise and vibration	Economic activities on-site

7.5.2.1 Soil, Surface and Ground Water Pollution

The potential pollution significance is directly related to the volumes and type of pollutant exposed and the sensitivity of the receiving environment.

The Project Site is located directly on die banks of the Klein Windhoek River. The soil, topography, drainage, geology, hydrogeology and 50-year flood line of the Project Site indicate significance to high potential pollution of soil, surface and groundwater (see Sections 5.1.2, 5.1.3, 5.1.4 and 5.1.5). The risk to ground water pollution is linked to the existence of the alluvium along the Klein Windhoek River acting as a recharge area for downstream resources (downstream boreholes and the Swakoppoort Dam).

Rainfall events are typically thunderstorms with heavy rainfall that can occur in short periods of time, which may result in floods. Rainfall events may result in the leaching of pollutants or hazardous substances into groundwater as well as runoff into the surrounding environment and surface waters where present. Although groundwater in the area is regarded as generally poor in quality (see Section 5.1.6), the greatest risk exists with the downstream water users along the mentioned rivers and long term pollution of the Swakoppoort Dam. It is therefore essential that no nutrients or pollutants should be discharged or is able to enter the soil, surface – or groundwater system from any business activity on the properties.

Sources of potential pollution from Portion 18 of the Farm Brakwater No. 48 include, but are not limited to; petroleum and/or oil spillages from the filling station, petroleum to be stored or kept on site, disposal of oil waste, grease and oil rags, waste water from wash bays, waste water and sewerage leakages, flooding and disposal of untreated sewage. The wash bay for trucks on Portion 18 of the Farm Brakwater No. 48 uses substantial volumes of water and subsequently causes high volumes of wash waste water. Also, in the event of solid waste not being properly handled, stored and disposed, high potential of pollution risk exists. The salt stored outside on Portion 22 of the Farm Brakwater No. 48 may also cause pollution, but to a lesser extent, because of the organic nature of salt.

Petroleum, chemicals, and hazardous waste needs to be stored in an enclosed and bunded area on the Project Site. Intractable, industrial or toxic waste must be disposed of according to regulations of the City of Windhoek for Hazardous Waste.

Septic tanks must be constructed according to guidelines of the Department of Water Affairs and meet the required standards stipulated in the City of Windhoek's Town Planning Scheme. It must be inspected when empty for cracks or leaks. If any cracks or leaks are detected, it must be replaced immediately. No septic tank is allowed within 500 m of the nearest borehole or watercourse.

The existing borehole on Portion 18 of the Farm Brakwater No. 48 can be used as a monitoring borehole where water samples should be taken and investigated on a 6 monthly basis. Any deviation detected will indicate leakage and action can be taken immediately accordingly.

Method Statements from WP Transport and Cerebos are compulsory (Appendix D) for this particular aspect of the onsite activities and should be closely monitored by an Environmental Control Officer (ECO). Various Method Statements (e.g. bunding; site lay-out and fencing; fuels and fuel spills; solid waste management; wash areas; storm water management) are required to combat any potential surface and underground water pollution.

Table 7.3: Impact assessment pertaining to soil, surface - and ground water pollution

CRITERIA	DESCRIPTION
Risk event	**Soil, Surface- and Ground Water Pollution**
Nature of Impact	Negative
Extent	Large
Duration	Medium Term
Intensity	Medium
Probability	Probable
Significance (no mitigation)	High
Mitigation	All hazardous substances should be stored in specially designed and constructed areas/containers/tanks as per applicable legislation

CRITERIA	DESCRIPTION
	(bunded areas to 120% of the capacity of the tank/container). Fuel storage tanks, piping, fittings and connections must meet recognised industry standards and older equipment and installations must be upgraded accordingly. These should preferably be under a roof. Leak detection systems should be able to detect the presence of liquid or petroleum leaks or vapour. Use corrosion protection in steel tanks and piping. Tanks should be equipped with devices that prevent spills and overfills, such as overfill alarms, automatic shut-off devices and catch basins around fill pipes. In the event of a spill, the focus should be on containing the spill to prevent contamination of soil, surface or ground water. Fill pipes on storage tanks should be located within the tank's bunded area. Fill pipes should have suitable fittings to ensure a secure, leak-proof connection with the hoses from fuel delivery trucks. Septic tank facilities must be inspected and verified to meet required standards and upgraded accordingly. Septic tanks must be inspected when empty for cracks and leaks on a regular basis. Ensure that surface water accumulating on-site are channelled and captured through a proper storm water management system to be treated in an appropriate manner before disposal into the environment. An appropriate waste water treatment facility capable of treating all types of effluent is an option to consider. Continued monitoring of such a system would be essential. Existing borehole can be used as monitoring borehole for leakages on-site. Water intended for disposal into the environment should meet the required standards as per the Water Resources Management Act. Wash bay should be totally enclosed with trap and proper treatment of waste water should any chemicals be used. Re-use of treated waste water should be considered wherever possible to reduce the consumption of potable water. Ensure that no waste is accumulating on site and implement a re-use, reduce and recycle waste management system. Avoid the use of herbicides in the area due to the natural flow towards the Klein Windhoek River. Proper training of personnel in responsible handling of chemicals and

CRITERIA	DESCRIPTION
	fuel and action in the event of spillage is necessary. Implement an Emergency Response Plan for unforeseen situations during the daily operations. Proper training of personnel in Emergency Response Plan.
Significance (with mitigation)	Low
Confidence level	Medium

The expected impacts of polluting substances can be reduced by applying preventative measures to contain any pollution or spillage from entering the surface water and surrounding environment. Possible pollution is expected to have a ***high*** impact on the immediate environment before mitigation because of the close proximity to the river, and a ***low*** impact, following proper mitigation measures that can prevent any spillage/leakage and continued monitoring to confirm that no leakage exists (see Table 7.3).

7.5.2.2 Health, Safety and Security

On-site safety of all personnel is an important responsibility from the side of the Employer and should be adhered to as per the requirements of the Labour Act (Act No. 6 of 1992) and the Public Health Act (Act No. 36 of 1919). All labour and health and safety laws shall also be adhered to.

For operations on Portion 18 of the Farm Brakwater No. 48, hazardous substances are stored and used on the property. Hazardous substances are to be handled, stored or transported according to the Hazardous Substances Ordinance No. 14 of 1974, as amended and Petroleum Products and Energy Act No. 13 of 1990, Government Notice No. 45 of 1990 as well as those stipulated by the City of Windhoek.

Occupational exposures may be most likely related to dermal contact with fuels and inhalation of fuel vapours among fuel dispensing and tanker delivery workers and workers involved in maintenance activities, especially those which involve potential contact with contaminated soils and the resulting vapour. Fire and explosion hazards may result from the presence of combustible gases and liquids on site.

Security needs to be strictly enforced by controlling entry and exit to Portions 18 and 22 of the Farm Brakwater No. 48 respectively. No unauthorised persons to enter the Project Site.

Table 7.4: Impact assessment pertaining to health, safety, and security

CRITERIA	DESCRIPTION
Risk event	**Health, Safety and Security**
Nature of Impact	Negative
Extent	Small

CRITERIA	DESCRIPTION
Duration	Short term
Intensity	Medium
Probability	Probable
Significance (no mitigation)	Moderate
Mitigation	Ensure that all personnel are trained depending on the nature of their work. Ensure that all personnel are trained to follow the Imperial Emergency Response Plan. Bulk petroleum deliveries should be conducted by properly trained personnel according to pre-established formal procedures to prevent accidental releases and fire / explosion hazards. Provide for a first aid kit and properly trained person to apply first aid when necessary. Fire extinguishers to be accessible in strategic places. A wellness program should be initiated to raise awareness on health issues, especially precautions of sexually transmitted diseases and Covid-19 under truck drivers. Eating may only take place in designated areas. Restrict unauthorised access to the site and implement access control measures. Staff and visitors to the site must be fully aware of all health and safety measures and emergency procedures. Applicable notice boards and warning signs must be visible in appropriate areas. Proper grounding is necessary to avoid static electricity build-up and lightning hazards. Use safe electrical installations and tools. Clearly demarcate dangerous areas and no-go areas on site. The operational management must comply with all applicable occupational health and safety requirements. The workforce should be provided with all necessary Personal Protective Equipment (PPE).
Significance (with mitigation)	Low
Confidence level	High

The health, safety and security impact would be of ***moderate*** significance due to the presence of fuel and hazardous substances on site and truck drivers on the road, but can be mitigated to ***low*** with the mentioned on-site health and safety procedures (See Table 7.4).

7.5.2.3 Traffic Safety

It can be assumed that traffic movement of heavy vehicles to and from the Project Site and immediate area must have increased over the last few years due to the properties being used as a truck port and a factory. Heavy vehicle traffic has also increased due to the development of the NamPower Brakwater Depot and its open camp storage facility where NamPower trucks load wooden poles and other heavy electrical equipment. This lead to an additional load being placed on existing infrastructure and increased safety risks.

Access from the A1 is currently obtained along the D1473 road and then turning immediately south on a gravel road that runs parallel with the TransNamib railroad and the A1 main road (see Section 3.3.3).

Future planning for access to the Project Site and neighbouring plots are along the upgraded D1473 gravel road all the way to the east of the Klein Windhoek River and then reaching the Project Site from the east along a right of way servitude that must be constructed across the Klein Windhoek River (See Fig. 3.3). The A1 was also upgraded between Windhoek and Okahandja in recent years.

This future planned access road will be safer near the junction with the A1 road if the turn-off to the Project Site is not directly next to the railroad. (See red line on Fig. 3.3) This will prevent the short turn of long trucks that is still half-way over the railroad when turning sharply south to drive parallel to the railroad in its servitude (see blue line on Fig. 3.3).

General road users' safety is a very important aspect and requires special attention from the side of the proponent. It is important that all drivers be informed of their potential impact and that all necessary measures are taken to restrict any accidents as a result of increased traffic.

Table 7.5: Impact assessment pertaining to traffic and safety

CRITERIA	DESCRIPTION
Risk event	**Traffic and Safety**
Nature of Impact	Negative
Extent	Medium and Large (Local and Regional)
Duration	Long term
Intensity	Low
Probability	Probable
Significance (no mitigation)	Moderate
Mitigation	Drivers should have valid driver's licenses with ample experience on

CRITERIA	DESCRIPTION
	proper road usage and manners on-site as well as when making use of public roads. Drivers must adhere to speed limits. Trucks need to be in a road worthy condition and maintained in a perfect working condition. Appropriate signs should be in place along the access road notifying road users of truck movements.
Significance (with mitigation)	Low
Confidence level	High

The potential pre-mitigation impact is regarded as ***moderate,*** which can be reduced to ***low*** through applying proper traffic rules and mitigations (see Table 7.5).

7.5.2.4 Noise and Vibration

Noises and vibrations experienced at the Project Site is that of constant vehicle movement on the A1 approximately 300 m to the west thereof, which is the main road connecting Windhoek to the northern parts of Namibia. Other noises are traffic on access gravel roads to surrounding properties and the Project Site as well as their daily activities. Substantial noise and vibration is experienced occasionally from the train that passes on the railroad directly next to the Project Site.

Operational noises associated with the economic activities on Potion 18 are predominantly trucks moving in and out and noises from the workshop and wash bay. On Portion 22 of the Farm Brakwater No. 48 is noise of the packaging machinery in the factory. This machinery noise does not exceed the 85 dB(A) that is prescribed by the Labour Act.

No sensitive receptors are nearby to be negatively influenced by noise and vibration from the Project Site.

Table 7.6: Impact assessment pertaining to noise and vibration

CRITERIA	DESCRIPTION
Risk event	**Noise and Vibration**
Nature of Impact	Negative
Extent	Small
Duration	Temporary
Intensity	Low
Probability	Improbable
Significance (no mitigation)	Low

CRITERIA	DESCRIPTION
Mitigation	Appropriate directional and intensity settings are to be maintained on all hooters and sirens, if intended to be used. No amplified music should be allowed on Site. No hooting. All trucks and fork lifters, and any other equipment should be kept in a perfect working condition and fitted with noise reduction devices. Monitoring of noise levels should be conducted to make sure the noise levels does not exceed acceptable limits. All areas where noise levels are above 85 dB(A) should be managed and controlled in accordance with the Labour Act. Activities operated after 18h00 should not result in any noise impact. No activity having a potential noise impact should be allowed after 18h00 if possible.
Significance (with mitigation)	Very Low
Confidence level	High

By applying a series of the mitigation measures as proposed for general industrial business type operations it is believed that any potential noise nuisance can be managed to have a ***very low*** impact, since there are no sensitive receptors expected close by (see Table 7.6).

7.5.2.5 Emissions & Dust

With the Brakwater area being 'peri-urban' the air quality in the area is considered to be good to fair. This is based on the impact that current activities in the area are likely to have on the air quality.

Emissions associated with the transporting business will be generated by heavy vehicle movement locally to and from the site, regionally and internationally. WP Transport (Pry) Ltd. must continue with its vehicle replacement programme that ensures trucks are not more than 10 years old. Strict truck service and maintenance programmes must be adhered to.

Industrial activities taking place in the area, the D1473 gravel road and the gravel road that passes along the railroad and large open areas being cleared of vegetation is directly resulting in dust being generated. This gives rise to air pollution and degrades the quality of the air in the larger area.

Given the prevailing winds throughout the year, emissions and dust impacts are expected to be the most severe towards the railroad and A1 main road. The wind direction and strength may increase the impact radius of dust and emissions.

Given the activities within the immediate surroundings, dust is regarded to be a nuisance as a result of traffic, construction and industrial activities. The activities and dust need to be controlled and managed as required by the Public Health Act (Act No. 36 of 1919) and Atmospheric Pollution

Prevention Ordinance (No. 11 of 1976). Dust control will require a Method Statement as depicted in the EMP (Appendix D).

Table 7.7: Impact assessment pertaining to dust and emissions

CRITERIA	DESCRIPTION
Risk event	**Dust and emissions**
Nature of Impact	Negative.
Extent	Small
Duration	Temporary
Intensity	Low
Probability	Highly Probable
Significance (no mitigation)	Moderate
Mitigation	Vehicle replacement programme that ensures trucks are not more than 10 years old. Strict truck service and maintenance programmes must be adhered to. Vehicle management systems that measure mileage, fuel consumption and tyre and vehicle maintenance. Driver training on how to conserve fuel. Route optimisation software to achieve optimal travelling distances, saving fuel. Regular dust suppression should minimise dust impacts mainly with respect to vehicle movement. Dust suppression by means of wetting should only be done with treated wastewater or the brackish water from the borehole. Appropriate dust suppression measures should be used when dust generation is unavoidable particularly during prolonged dry periods in summer. Such measures shall also include the use of temporary stabilising measures. Removal of vegetation should be restricted to the minimum and only what is necessary. Handling and transport of erodible materials should be avoided under high wind conditions or loaded accordingly. Where possible, stockpiles should be in sheltered areas and covered. No fires should be allowed on-site for any purpose and waste are not allowed to be burned on-site. Vehicle speeds along the gravel roads should be reduced to 40km/h to

CRITERIA	DESCRIPTION
	minimise dust. Site personnel are to be provided with access to dust masks.
Significance (with mitigation)	Low
Confidence level	Medium

By applying a series of the mitigation measures as proposed for general transporting business's it is believed that any potential nuisance can be significantly reduced. Emissions and Dust holds a ***moderate*** significance and can with appropriate mitigations be reduced to ***low*** impact (see Table 7.7).

7.6 CUMULATIVE IMPACTS

New industrial developments are expected to place an additional load on existing natural resources and infrastructure and have both positive and negative impacts on the immediate and surrounding environment (natural and social).

An evaluation of the identified impacts that the rezoning may have on the environment (i.e. natural and social) suggests that the greatest cumulative impact expected is that of possible groundwater and surface water contamination. The possible pollution of the Klein Windhoek River and its groundwater next to the Project Site will add to the pollution already taking place upstream where the river flows through Windhoek City. The significance will be determined by the mitigation measures implemented as part of the operational activities on site as well as those measures implemented by businesses upstream.

The change in land use from 'residential' to 'industrial' that already took place on Portions 18 and 22 of the Farm Brakwater No. 48 would have caused an increase in electricity and water usage as well as pressure on the infrastructure in the area at the time. However, the Project Site falls within the core industrial area (Zone E) earmarked by the City of Windhoek for industrial development and infrastructure in this area have already been developed to accommodate increased industrial activity. Since development has already taken place no additional load will be introduced if the properties are rezoned. The overall cumulative impact of the proposed rezoning on resources, is thus expected to be ***low***.

Other cumulative impacts would be the increase in traffic as well as emissions and dust for which mitigation measures exist.

Taking the above into consideration, the cumulative impact of the rezoning, with the implementation of the proposed mitigation measures to minimise the overall impacts, can be expected to be ***low***.

8 CONCLUSIONS & RECOMMENDATIONS

8.1 CONCLUSIONS

This Scoping Assessment has been triggered by the need to rezone Portions 18 and 22 of the Farm Brakwater No. 48 to bring the land use in line with the activities.

Following the taking over of WP Transport (Pty) Ltd. by Imperial Logistics (still operating as WP Transport) it was discovered that Portions 18 and 22 of the Farm Brakwater No. 48 are zoned 'residential', apart from the fact that the development and operations of WP Transport has been in existence for several years, while Cerebos Salt Factory has been in operation since 2018.

The majority of surrounding developments in the area is of an industrial nature, which enables that activities on Portions 18 and 22 of the Farm Brakwater No. 48 blends in with the surrounding character and land use, which is in-line with the City of Windhoek's development planning for the area.

The greatest sensitivity of the receiving environment lies within the hydrological aspect (surface and groundwater flow) given the drainage towards the Klein Windhoek River that flows directly adjacent east to both Properties. The Klein Windhoek River feeds downstream water resources like localised boreholes as well as the Swakoppoort Dam along the Swakop River. The site and immediate surroundings contain river alluvium, which acts as an infiltration medium for surface water and is known to be highly permeable. No pollution of any kind is therefore allowed, as pollution plumes will easily disperse within this geology medium, especially after rains. To prevent this, the suggested mitigation measures and EMP must strictly be adhered to.

From an ecological perspective Portions 18 and 22 of the Farm Brakwater No. 48 has been cleared of vegetation, accept for the most southern portion of Potion 18 of the Farm Brakwater No. 48, which is located outside the fenced area. This area is highly infested with *Prosopis* species. It is recommended that the *Prosopis* forest be removed to allow the establishment of indigenous vegetation. This would have a positive effect on the riverine ecosystem and would show environmental sensitivity of the Proponent.

The rezoning will not bring any change as the industrial like activities have been in existences for several years, but through legalising the zoning it will contribute to the long term operations of WP Transport (PTY) Ltd. at the Property and as a result have a positive social impact towards ensuring continued employment of the substantial personnel force currently employed on the Project Site. An indirect positive impact would be on their households and extended families as well as on the employment rate of the Windhoek area in general.

Negative social impacts could be reduced to be insignificant with the application of the suggested mitigation measures that are incorporated into the EMP.

Following this Environmental Scoping Assessment, it was found that none of the potential impacts identified are regarded as significant to the extent to restrict the rezoning, since mitigation measures for those exist.

Given this, it is not to say that there will be no impact/s and potential threats as highlighted by the Study. **Operational activities need to be controlled by the Proponent, and monitored by the City of Windhoek to ensure that all potential impacts identified in this study and other impacts that might arise during operations are properly identified in time and addressed in an effective manner to ensure protection of especially the immediate and downstream water resources.**

This environmental assessment concludes that the intended rezoning of Portions 18 and 22 of the Farm Brakwater No 48, as presented in this Report, is expected to have a **non-significant** impact as well as a **non-significant** cumulative impact if operated in line with existing legislation, by-laws and monitored as proposed.

8.2 RECOMMENDATIONS

It is therefore recommended that this rezoning be approved subject to the following recommendations:

- All required permits, licenses and approvals (see Section 4.4) for the activities already taking place be obtained and updated to convey the current status of affairs.
- All mitigations listed in Tables 7.3 to 7.7 be implemented during Operations.
- An Environmental Control Officer must be appointed to make sure all the requirements within the Scoping Report and Environmental Management Plan are adhered to.
- Annual operational monitoring should be done by the independent environmental assessment practitioner and reports be submitted with the office of the Environmental Commissioner, which documents will be used in support to the ECC renewal.
- That various Green Building Designs and Principles be applied in making the proposed development more sustainable.
- It is recommended that alternative and renewable sources of energy be explored and introduced into the Project Site to reduce dependency on the conventional grid already under pressure to cope with existing demands.
- Recycling and reuse of treated waste water or rain water for purpose of the wash bay and dust suppression should be investigated and implemented.
- Continued on-site monitoring and evaluation be conducted by the CoW & DEA.
- That an Environmental Audit Report be compiled and submitted with both the Environmental Division (CoW) and the Directorate of Environmental Affairs (MET) for approval and action.

8.3 ENVIRONMENTAL STATEMENT

With the combination of all the impacts of the rezoning, taken into account the social, economic and environmental level should be classified as having a predominantly ***low*** significance impact rating. This rating will only be true if all proposed mitigation measures are implemented and the activities are operated to a satisfactory level within all relevant Legislation and Recommendations.

Urban Green cc, as independent environmental assessment practitioners, recommended to the relevant authorities that the application for rezoning be **approved** given that the above recommendations are met and that continued monitoring be conducted as per the Environmental Management Act (Act No. 7 of 2007).

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