ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONTINUOUS OPERATIONS OF THE BULK LIQUID FUEL STORAGE AND HANDLING FACILITY ON ERF 1213, ONDANGWA, EXTENSION NO. 3, OSHANA REGION

November 2025

APP - 250930006504

Project Name:	***ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONTINUOUS OPERATIONS OF THE BULK LIQUID FUEL STORAGE AND HANDLING FACILITY ON ERF 1213, ONDANGWA, EXTENSION NO. 3, OSHANA REGION***
The Proponent:	**Bachmus Oil & Fuel Supplies (Pty) Ltd** **PO Box 2788** **Walvis Bay**
Prepared by:	Green Earth ENVIRONMENTAL CONSULTANTS 1st floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia PO Box 6871, Ausspannplatz, Windhoek
Release Date:	November 2025
Consultant:	C. Du Toit C. Van Der Walt Cell: 081 127 3145 Email: charlie@greenearthnamibia.com

EXECUTIVE SUMMARY

Green Earth Environmental Consultants have been appointed by Bachmus Oil & Fuel Supplies (Pty) Ltd (the Proponent) to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) to obtain an Environmental Clearance (EC) for the continuous operations of the wholesale bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012). This facility was taken over from Engin Namibia some time ago and is an ongoing operation. Unfortunately, the ECC issued to Engen Namibia was never transferred to the Proponent and could also not be obtained from the MEFT. Thus, the purpose of this scoping report and EMP is to obtain an ECC for the current activities on the site. The operation of the facility involves the following activities:

Operational activities:
Storage of diesel, illuminated paraffin and lubricants
Wholesale fuel and lubricant sales - filling of commercial vehicles (trucks) with diesel
Filling of diesel from large truck tankers into the aboveground tanks by direct closed transfer
Movement of pump attendants attending to customers
Safety and security activities
Administrative activities related to the facility

The land within the immediate vicinity of the project site is predominately characterised by business, residential and industrial activities. The key characteristics/environmental impacts of the proposed project are as follows:

Impact on environment:	**Nature of impact:**
Creation of employment and transfer of skills	Positive as employment will be provided during operations which will result in the transfer of skills which is important in the current economic climate.
Provision of diesel and lubricants to commercial / wholesale fuel customers	Positive as customers can purchase large volumes of diesel and lubricants at reduced prices.
Impact on utilization of municipal and other infrastructure and facilities	Municipal bulk services are efficiently utilized and rates and taxes are paid.
Fire hazards associated with storage and handling of products	The unlikely event of a fire from operations or products stored onsite will have a serious negative impact on neighbouring properties.
Dust	The access roads and parking areas are partly paved and the site is walled in to mitigate dust emissions.
Impact on traffic	Limited as the site is surrounded by streets on all sides.

Noise	Low and on par with the noise levels associated with the uses of an industrial areas during operation.
Cultural/Heritage	No items of archeologic value or graves were observed during the site visit which means the impact will be low, if however, any such items or graves are found during construction the impact will be high and irreversible.
Visual impact	Low as the facility is in an existing and enclosed by a high wall.
Impact on groundwater, surface water and soil	The impact will be negative in case of spilling of petroleum products during handling and storage, the risk should be mitigated through the installation of spilling control infrastructure and equipment.
Health and safety	Low if mitigated during operations.

The environmental impacts during the operational phase of the proposed project:

IMPACTS DURING OPERATIONAL PHASE			
Aspect	**Impact Type**	**Significance of impacts Un-mitigated**	**Significance of impacts Mitigated**
Ecology Impacts	-	L	L
Dust and Air Quality	-	M	L
Groundwater Contamination	-	M	L
Waste Generation	-	M	L
Failure of Reticulation Pipeline	-	L	L
Fires and Explosions	-	M	L
Safety and Security	-	M	L

IMPACT EVALUATION CRITERION (*DEAT 2006*):		
Criteria	**Rating (Severity)**	
Impact Type	+	Positive
	O	No Impact
	-	Negative
Significance of impacts	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

The type of activities that is carried out on the site does not negatively affect the amenity of the locality and the activities do not adversely affect the environmental quality of the area as it is located in an existing industrial area. None of the potential impacts identified are regarded as having a significant impact to the extent that the proposed project should not be allowed. However, the operational activities further on need to be controlled and

monitored by the assigned managers and the Proponent (Bachmus Oil & Fuel Supplies (Pty) Ltd).

The Environmental Impact Assessment which follows upon this paragraph was conducted in accordance with the guidelines and stipulations of the Environmental Management Act (No 7 of 2007) meaning that all possible impacts have been considered, and the details are presented in the report.

Based upon the conclusions and recommendations of the Environmental Impact Assessment Report and Environmental Management Plan following this paragraph, the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

1. Accept the Environmental Impact Assessment Report.
2. Approve the Environmental Management Plan.
3. Issue an Environmental Clearance Certificate for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region for Bachmus Oil & Fuel Supplies (Pty) Ltd and for the following "listed activities":

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

- *The construction of facilities for the refining of gas, oil and petroleum products.*

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *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 at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

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LIST OF ABBREVIATIONS

ADO	Automotive Diesel Oil
CAN	Central Area of Namibia
DCM	Deputy Chief of Mission
EC	Environmental Clearance
ECO	Environment Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
HPP2	Namibia National Harambee Prosperity Plan II
I&APs	Interested and Affected Parties
ISCW	Institute for Soil, Climate and Water
MEFT	Ministry of Environment, Forestry and Tourism
SCS	Soil Classification System
SDGs	Sustainable Development Goals
SDI	National Spatial Development Initiatives
SQM	Square Meters
TIA	Transport Impact Assessment
ULP	Unleaded Petrol
WRB	World Reference Base for Soil Resources
WRMA	Water Resources Management Act

1. INTRODUCTION

Green Earth Environmental Consultants have been appointed by Bachmus Oil & Fuel Supplies (Pty) Ltd (the Proponent) to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012). The site is existing and in operation and an ECC is required to ensure legal and operational compliance.

The Environmental Management Act (No 7 of 2007) requires that an Environmental Impact Assessment be conducted to request a Clearance Certificate for the following "listed activities":

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

- *The construction of facilities for the refining of gas, oil and petroleum products.*

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *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 at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

The Environmental Impact Assessment below contains information on the proposed project and the surrounding areas, the proposed operations and activities, the applicable legislation to the study conducted, the methodology that was followed, the public consultation that was conducted, and the receiving environment's sensitivity, any potential ecological, environmental and social impacts.

2. TERMS OF REFERENCE

For this environmental impact exercise, Green Earth Environmental Consultants followed the terms of reference as stipulated under the Environmental Management Act.

The aim of the environmental impact assessment was:

- To comply with Namibia's Environmental Management Act (2007) and its regulations (2012).
- To ascertain existing environmental conditions on the site and to determine its environmental sensitivity.
- To inform I&APs and relevant authorities of the details of the proposed development and to provide them with an opportunity to raise issues and concerns.
- To assess the significance of issues and concerns raised.
- To compile a report detailing all identified issues and possible impacts, stipulating the way forward and identify specialist investigations required.

- To outline management guidelines in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.

The tasks that were undertaken for the Environmental Impact Assessment included the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, social, cultural heritage, groundwater, sedimentation, erosion, biodiversity, sense of place, socio-economic environment, health, safety and traffic.

The EIA and EMP from the assessment will be submitted to the Environmental Commissioner for consideration. Environmental Clearance will only be obtained (from the DEA) once the EIA and EMP has been examined and approved for the listed activity.

The methods that were used to assess the environmental issues and alternatives included the collection of data on the project site and area from the proponent, Municipality and identified stakeholders. Consequences of impacts were determined in five categories: nature of project, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity.

All other permits, licenses or certificates that are further on required for the operation of the proposed project still needs to be applied for by the proponent.

3. MOTIVATION, NEED AND DESIRABILITY

The Project Site is a small suburban site which also supply liquid paraffin on a wholesale basis to retailers. The site is not used by large, interlinked trucks for filling as it is not located on the main transport roads.

It is believed that there is a need for this activity on this site due to its strategic location and range of products that it provides for their customers.

The site takes access from two streets, King Nangolo Amutenya Road and Ondjondjo Street, which is wide enough to allow good and safe access to the vehicles entering or exiting the site. The site is flat, fenced in and surrounded by other industrial, commercial and business uses and thus suited for the proposed activity.

The community has adapted to the use of Erf 1213 as it only trades during normal business hours and it is not compromising the residential activities in the area.

From the above it can be concluded that this site is needed for the operations of the Proponent and that it is desirable to accommodate the activities.

Determining what the impact of the operations would be are broken down into different categories and environmental aspects and dealt with in the Environmental Management Plan (EMP). As per the ISO 14001 definition: *an environmental aspect is an element of an organization's activities, products and/or services that can interact with the environment to cause an environmental impact e.g., land degradation or land deterioration among others, that will cause harm to the environment.*

All concerns and potential impacts raised during the public participation process and consultative meetings were evaluated. Predictions were made with respect to their magnitude and an assessment of their significance was made according to the following criteria:

The Nature of the activity: The possible impacts that may occur are that water will be used in the construction and operational phases, wastewater will be produced that will be handled, land will be used for the proposed activities, a sewage system will be constructed, and general construction activities will take place, namely the building of infrastructure.

The Probability of the impacts to occur: The probability of the above-named impacts to occur and have a negative or harmful impact on the environment and the community is small since the Environmental Management Plan will also guide these activities. Water will still be used, and wastewater produced, however guidelines will be set that will ensure the impact is minimum.

The Extent of area that the project will affect: The specific project will most likely only have a small impact on the proposed project site itself and not on the surrounding or neighbouring land except for noise, traffic, roads, electricity and dust and there may be a visual impact because of the size of the proposed development. Therefore, the extent that the project will have a negative impact on is not extensive.

The Duration of the project: The duration of the project is uncertain. Water will still be used, and waste produced on a continuous basis and the structures that were constructed will remain and may be visually unpleasing to surroundings.

The Intensity of the project: The intensity of the project is mostly limited to the site however for the above-named items/processes where the intensity of the project will be felt outside the borders of the project site.

According to the information that was present while conducting the Environmental Impact Assessment for the construction and operation of the project, no high-risk impacts were identified and therefore it is believed that the operations will be feasible in the short and long run. Most of the impacts identified were characterized as being of a low impact on the receiving and surrounding environment and with mitigation measures followed, the impacts will be of minimum significance or avoided.

4. THE PROPONENT

Bachmus Oil & Fuel Supplies (Pty) Ltd, the Proponent, is a Namibian Owned Company specialising in the supply of various lubricants, oils and hydraulics for a number of applications in the industrial, mining, marine, agriculture, automotive, manufacturing, energy and construction industries. They have a network of commercial outlets located all over Namibia where they offer a unique combo-solution-driven product and service offering. This includes the supply, storage, tracking of dispensing and monitoring of fuels and oils.

5. PROJECT DESCRIPTION

5.1. THE SITE LOCALITY AND CURRENT USE

The Proponent operates a bulk liquid fuel storage and handling facility supplying wholesale customers with diesel, illuminated paraffin and lubricants on Erf 1213, Ondangwa. This facility was taken over from Engin Namibia some time ago and is an ongoing operation. Unfortunately the ECC issued to Engen Namibia was never transferred to the Proponent and could also not be obtained from the MEFT. The facility is located on the corner of King Nangolo Amutenya Road and Ondjondjo Street in Ondangwa (17.91472°S, 15.98902°E).

The locality of the site is shown on *maps* below:

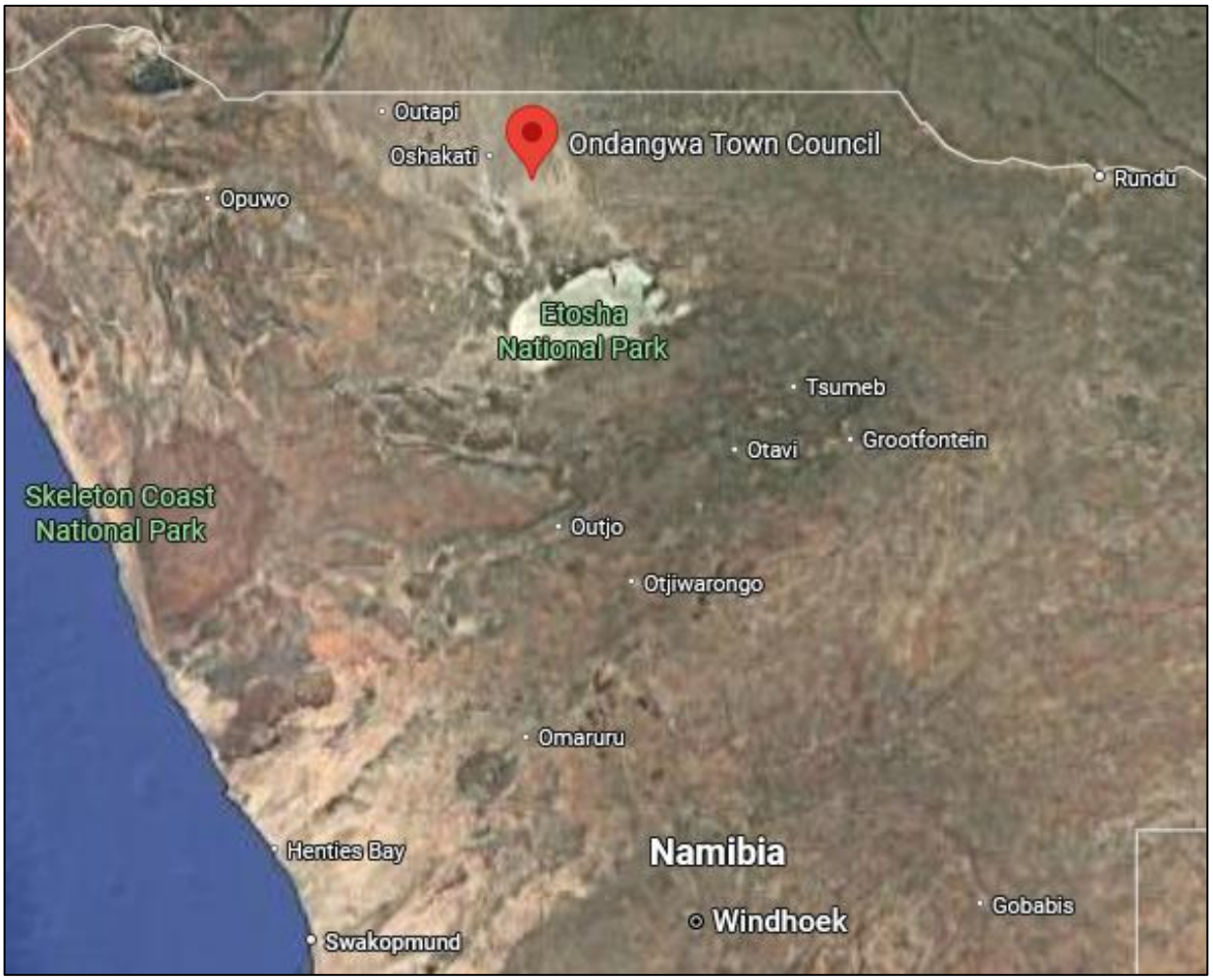

Figure 1: Locality of Ondangwa Town

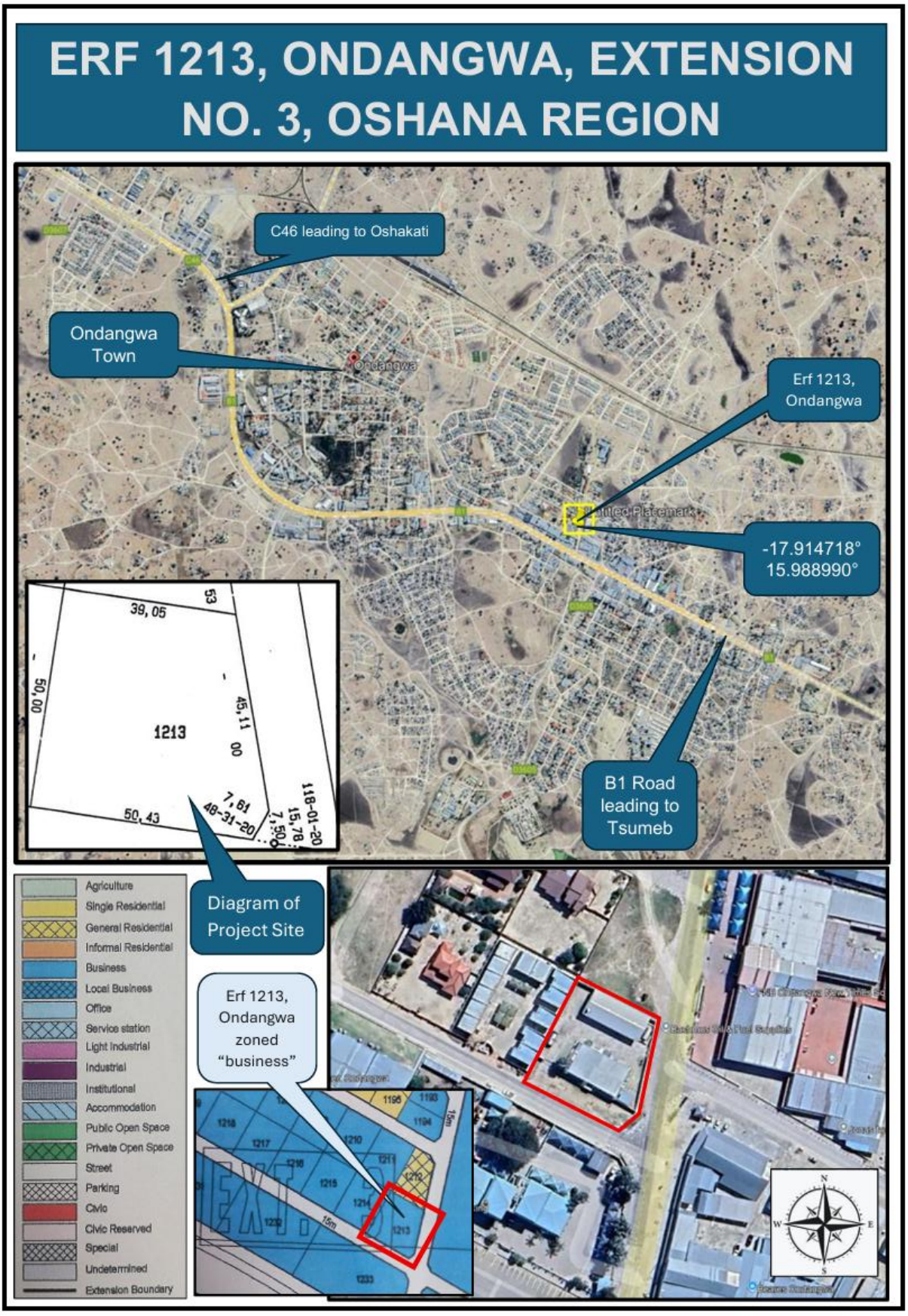

Figure 2: Locality Map of the Project Site

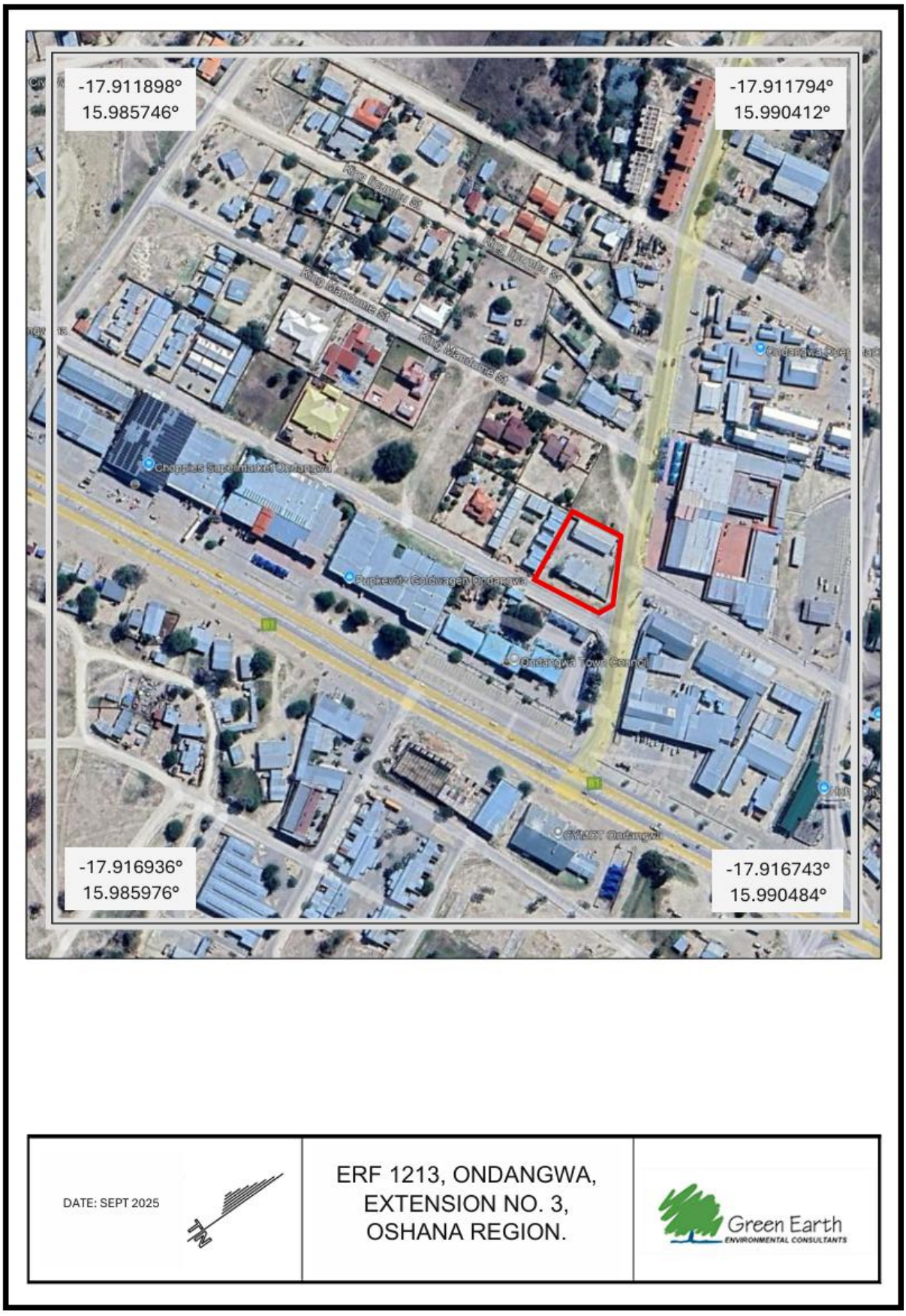

Figure 3: Erf 1213, Ondangwa Locality Map

5.2. ZONING AND SURROUNDING USES

Erf 1213, Ondangwa is zoned “business” and is located directly northeast of the Ondangwa Town Council’s Offices. The Erf is 2344 m² in extent. The site is surrounded by commercial, residential and business properties. The wholesale/commercial facility has been operation for several years. It was taken over from Engen and is providing fuel and lubricants to wholesale customers operating small businesses like warehouses, industries and retail in the surrounding areas of Ondangwa which operates small commercial vehicles and fleet.

5.3. SITE UTILISATION AND INFRASTRUCTURE

The site has 2 X 23m³ self-bunded above ground tanks for diesel storage and a 23m³ tank with a concrete bund wall for the storage of Illuminated Paraffin. There is also a warehouse which is used for the storage of a large range on lubricants as well as a building accommodating the administrative offices and ablution facilities. For filling up with diesel and / or to collect luminated paraffin and lubricants, vehicles enter from Ondjondjo Street and exit onto King Nangolo Amutenya Road. The site is included by a wall and is under 24 hours security with access control.

Thus the following infrastructure is on the site:

- Office building
- Ablution facilities
- Motor Control Centre and backup generator room
- Firefighting equipment linked to the municipal water network
- Product pump house for loading and offloading
- Tank concrete ring foundations with secondary containment
- Vertical steel storage tanks
- Oily water separator and drainage system
- Boundary walls and security perimeter fence
- Area lighting and CCTV
- Warehouse for storing and handling of lubricants

The *Photo* below shows how the site is utilised and the traffic flows through the site.

It is the intention of the Proponent to continue with the operations of the wholesale fuel site for which Environmental Clearance is required.

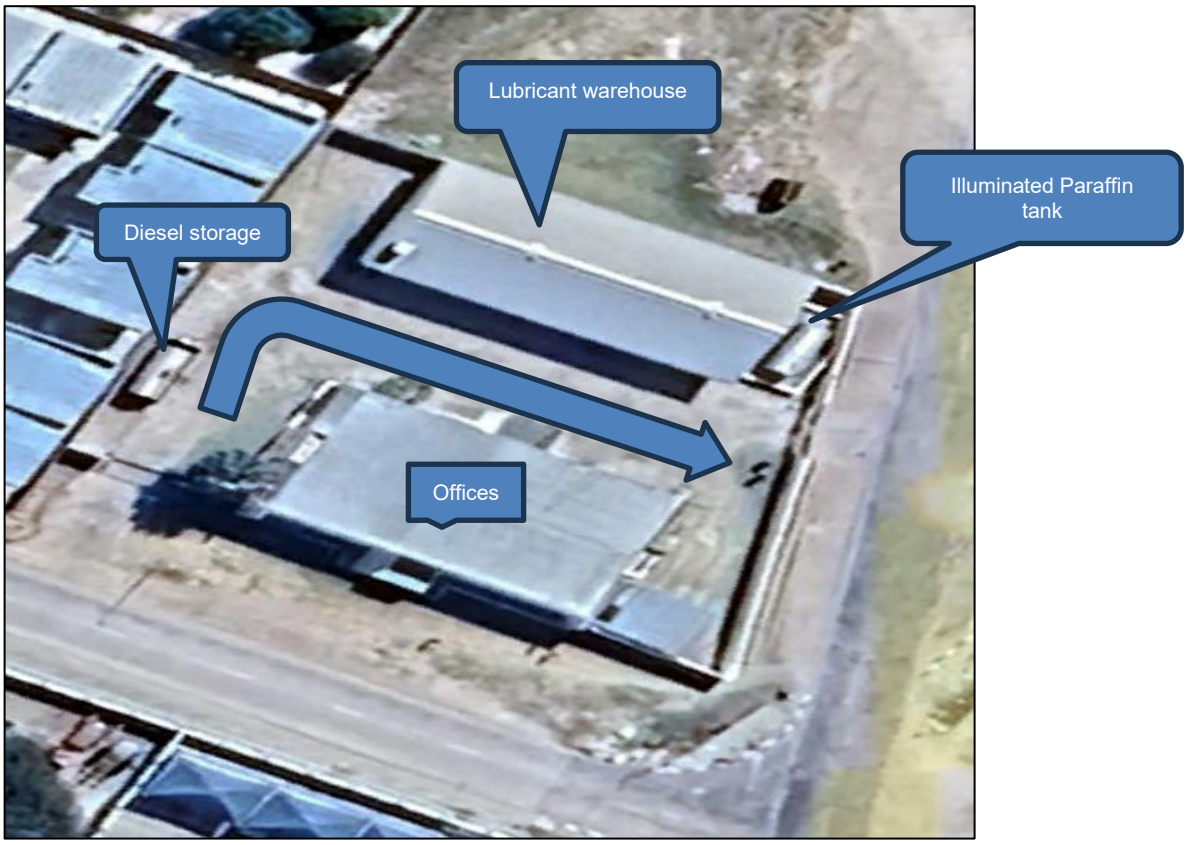

Figure 4: Site layout

Below are *Photos* of infrastructure on the site:

Figure 5: Tanks present on site

5.4. OPERATIONAL ACTIVITIES ON THE SITE

Below is a summary of the typical operational activities to be undertaken on the site:

- Movement of pump attendants attending to customers.
- Filling of commercial vehicles (trucks) and tankers with diesel.
- Filling of drums with Illuminated Paraffin.
- Vehicles collecting lubricants and illuminated paraffin.
- Administrative activities related to the facility.

Figure 6: Truck being filled with fuel and a truck used for delivery of lubricants

6. BULK SERVICES AND INFRASTRUCTURE

The following bulk services are supporting the site:

6.1. ACCESS

The site will have a dedicated entrance and dedicated exit. Access is from Ondjondjo Street and vehicles are exiting onto King Nangolo Amutenya Road. Both these roads are tarred.

6.2. WATER SUPPLY / REQUIREMENTS

The site is connected to the water reticulation system of the Town of Ondangwa.

6.3. ELECTRICITY

Electricity to the site is supplied by NORED.

6.4. SEWAGE DISPOSAL

The sewer of the site is connected to the sewage reticulation system of the town.

6.5. STORM WATER AND DRAINAGE

The natural flow of stormwater has been accommodated in the placement of the storage facilities and buildings and the natural flow is accommodated where possible. Any new structures or developments on the site must be planned to accommodate surface water/stormwater and ensure that it does not endanger neighbouring structures.

6.6. SOLID WASTE

Solid waste is collected from the site by Ondangwa Town Council.

6.7. FIRE PROTECTION

The Proponent has the necessary fire protection infrastructure / extinguishers as per municipal requirements. A Fire Protection Specialist is used to advice the proponent on a proper fire protection plan with the required infrastructure and is overseeing the annual auditing and maintenance of the infrastructure.

7. APPROVALS OBTAINED

The proponent obtained the following approvals to proceed with the project:

7.1. ONDANGWA TOWN COUNCIL APPROVAL

Ondangwa Town Council issued a consent/confirmation for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region. See copy of *Consent Letter* below:

Ondangwa
Town Council.

ONDANGWA TOWN COUNCIL
B1, Ondangwa Main Road,
Ondangwa
Private Bag 2032,
Ondangwa, Namibia
Tel: +264-65-240101
Fax: +264-65-240453
Email:ceoadmin@ondangwatown.com

Enq: W Shepya

20 October 2025

The Environmental Commissioner and Head
Ministry of Environment, Forestry and Tourism
Private Bag 13306
Windhoek
Tel: (+264) 61 284 2751
Email: timoteus.mufeti@meft.gov.na

Dear, Mr. Timoteus Mufeti

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONTINUOUS OPERATIONS OF THE BULK LIQUID FUEL STORAGE AND HANDLING FACILITY ON ERF 1213, ONDANGWA, EXTENSION NO. 3, OSHANA REGION.

The Ondangwa Town Council hereby acknowledges receipt of the application for consent on 29 September 2025. Confirmation is hereby granted for Bachmus Oil & Fuel Supplies (Pty) Ltd to commence with the process of obtaining all necessary approvals, permits, licenses, and certificates for the continuous operation of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa Extension No. 3, Oshana Region.

However, Council wishes to clarify that this confirmation does not constitute Council's approval of the proposed project. The consent is merely intended to facilitate the Environmental Clearance application process as required by the Ministry of Environment, Forestry and Tourism.

For any further clarification, please do not hesitate to contact our office.

Yours faithfully,

ONDANGWA TOWN COUNCIL
OFFICE OF THE C.E.O
2025 -10- 21
REPUBLIC OF NAMIBIA

.....
Ismael I Namgongo
CHIEF EXECUTIVE OFFICER

All correspondences must be addressed to the Chief Executive Officer

"Your Ideal Investment Destination"

8. APPROACH TO THE STUDY

The assessment included the following activities:

a) Desktop sensitivity assessment

Literature, legislation and guidance documents related to the natural environment and land use activities available on the site and area in general were reviewed to determine potential environmental issues and concerns.

b) Site assessment (site visit)

The project site and the immediate neighbourhood and surrounding area were assessed through a site visit to investigate the environmental parameters on site to enable further understanding of the potential impacts.

c) Public participation

The public was invited to give input, comments and opinions regarding the proposed project. Notices were placed on the project site. A Background Information Document (BID) was sent to neighbours, I&APs and to local authorities. The final date for receiving comments on the BID was 10 November 2025.

d) Scoping

Based on the desk top study, and site visit, the environmental impacts were determined in five categories: nature of project, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity. The findings of the scoping have been incorporated in the environmental impact assessment report below.

e) Environmental Management Plan (EMP)

To minimize the impact on the environment, mitigation measures have been identified to be implemented during planning, construction and implementation. These measures have been included in the Environmental Management Plan to guide the planning, construction and operation of the project which can also be used by the relevant authorities to ensure that the project is planned, developed and operated with the minimum impact on the environment.

9. ASSUMPTIONS AND LIMITATIONS

It is assumed that the information provided by the proponent (Bachmus Oil & Fuel Supplies (Pty) Ltd), and other relevant parties are accurate. Alternative sites were not evaluated as the proposed site is the site owned by the proponent. The site was visited several times and any happenings after this are not mentioned in this report. (The assessment was based on the prevailing environmental conditions and not on future happenings on the site.) However, it is assumed that there will be no significant changes to the proposed

project, and the environment will not adversely be affected between the compilation of the assessment and the implementation of the proposed activities.

10. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programs and policies deemed to have adverse impacts on the environment require an EIA according to Namibian legislation. The administrative, legal and policy requirements to be considered during of the Environmental Assessment for the project are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007) and Regulations (2012)
- The Ondangwa Town Planning Scheme
- Other Laws, Acts, Regulations and Policies

THE NAMIBIAN CONSTITUTION

Article 95 of Namibia's constitution provides that: "The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following: Management of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall ensure that the natural resources and features like rivers, plants, trees as well as water resources are protected and sustained by providing measures against destroying the environment and the natural resources. This article recommends that a relatively high level of environmental protection is called for in respect of activities which might impact on these natural resources. Article 144 of the Namibian Constitution deals with environmental law and it states:

"Unless otherwise provided by this Constitution or Act of Parliament, the general rules of public international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia". This article incorporates international law, if it conforms to the Constitution, automatically as "law of the land". These include international agreements, conventions, protocols, covenants, charters, statutes, acts, declarations, concords, exchanges of notes, agreed minutes, memoranda of understanding, and agreements (Ruppel & Ruppel-Schlichting, 2013). It is therefore important that the international agreements and conventions are considered (see section 4.9).

In considering the environmental rights, the proponent, Bachmus Oil & Fuel Supplies (Pty) Ltd, should consider the following in devising an action plan in response to these articles:

- Implement a "zero-harm" policy, which would guide decisions and operations.
- Ensure that no management practice or decision result in the degradation of future natural resources.
- Take a decision on how this part of the Constitution will be implemented as part of the Environmental Control System (ECS).

ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007) AND REGULATIONS (2012)

The Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007) that came into effect in 2012 requires/recommends that an Environmental Impact Assessment and an Environmental Management Plan (EMP) be conducted for the following listed activities to obtain an Environmental Clearance Certificate:

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

- *The construction of facilities for the refining of gas, oil and petroleum products.*

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *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 at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

Cumulative impacts associated with the project must be included as well as the public consultation. The Act further requires all major industries and developers to prepare waste management plans and present these to the local authorities for approval.

The Act, Regulations, Procedures and Guidelines have integrated the following sustainability principles. They need to be given due consideration, particularly to achieve proper waste management and pollution control:

Cradle to Grave Responsibility

This principle provides that those who handle or manufacture potentially harmful products must be liable for their safe production, use and disposal and that those who initiate potentially polluting activities must be liable for their commissioning, operation and decommissioning.

Precautionary Principle

It provides that if there is any doubt about the effects of a potentially polluting activity, a cautious approach must be adopted.

The Polluter Pays Principle

A person who generates waste or causes pollution must, in theory, pay the full costs of its treatment or of the harm, which it causes to the environment.

Public Participation and Access to Information

In the context of environmental management, citizens must have access to information and the right to participate in decisions making.

The proposed project and land use will not have a negative impact on the public as the surrounding uses are also characterised by industrial and business activities.

THE ONDANGWA TOWN PLANNING SCHEME

To ensure that development is being driven and guided in Ondangwa, the Ondangwa Town Council has endorsed the Ondangwa Town Planning Scheme, approved in terms of section 26(1) of the Town Planning Ordinance of 1954.

The area to which this Scheme applies, is the area as indicated on the scheme maps. The general purpose of the Scheme is the co-ordinated and harmonious development of the area of Ondangwa including where necessary the redevelopment of any part thereof which has already been subdivided and build upon, in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare as well as efficiency and economy and conservation of the existing character of the town, in the process of such development.

CONCLUSION AND IMPACT

Given that the site is within the Ondangwa Municipal Boundaries and that the developmental intentions of the client and intended use is in line with the stipulations of the Ondangwa Town Planning Scheme, there is no reason to anticipate detrimental effects to the surroundings of Ondangwa in the support of this application by Council.

OTHER LAWS, ACTS, REGULATIONS AND POLICIES

Table 1: Laws, Acts, Regulations and Policies

Laws, Acts, Regulations & Policies consulted:	
Petroleum Products and Energy Act of Namibia (No 13 of 1990)	The **Petroleum Products and Energy Act of Namibia (No 13 of 1990)** make provision for impact assessments for new proposed fuel facilities and petroleum products known to have detrimental effects on the environment. It specifies that petroleum facilities must comply with relevant SANS specifications. The specific important Petroleum Products Regulations promulgated in terms of the Petroleum Products and Energy Act 13 of 1990 (3 July 2000) that should be referred to are: Regulation 3, 16, 20, 21, 24, 27, 29, 32, 40(2), 49 & 50.
Pollution Control and Waste Management Bill (guideline only)	The **Pollution Control and Waste Management Bill** are currently in preparation and is therefore included as a guideline only. Of particular reference to the development, Parts 2, 7 and 8 apply. Part 2 provides that no person shall discharge or cause to be discharged, any pollutant to the air from a process except under and in accordance with the provisions of an air pollution license issued under section 23. Part 2 also further provides for procedures to be followed in license application, fees to be paid and required terms of conditions for air pollution licenses. Part 7 states that any person

	who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent authority, in accordance with sub-section (2), of the presence and quantity of those substances. The competent authority for the purposes of section 74 shall maintain a register of substances notified in accordance with that section and the register shall be maintained in accordance with the provisions. Part 8 provides for emergency preparedness by the person handling hazardous substances, through emergency response plans.
Water Resources Management Act	The **Water Resources Management Act** as promulgated (GG No 8187 dated 29 August 2023) stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.
Hazardous Substances Ordinance (No 14 of 1974)	The **Ordinance** applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export and is administered by the Minister of Health and Social Welfare. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.
The Local Authorities Act (No 23 of 1992)	The purpose of the **Local Authorities Act** is to provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters.
Atmospheric Pollution Prevention Ordinance of Namibia (No 11 of 1976)	Part 2 of the **Ordinance** governs the control of noxious or offensive gases. The Ordinance prohibits anyone from carrying on a scheduled process without a registration certificate in a controlled area. The registration certificate must be issued if it can be demonstrated that the best practical means are being adopted for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.
Nature Conservation Ordinance	The **Nature Conservation Ordinance (No 4 of 1975)** covers game parks and nature reserves, the hunting and protection of wild animals, problem animals, fish and indigenous plant species. The Ministry of Environment, Forestry and Tourism (MEFT) administer it and provides for the establishment of the Nature Conservation Board.
Forestry Act	The **Forestry Act (No 12 of 2001)** specifies that there be a general protection of the receiving and surrounding environment. The protection of natural vegetation is of great importance, the Forestry Act especially stipulates that no living tree, bush, shrub or indigenous plants within 100m from any river, stream or watercourse, may be removed without the necessary license.
Soil Conservation Act	The **Soil Conservation Act (No 76 of 1969)** stipulates that the combating and preventing of soil erosion should take place; the soil should also be conserved, protected and improved, vegetation and

	water sources and resources should also be preserved and maintained. When proper mitigation measures are followed along the construction and implementation phase of the project, the natural characteristic of the property is expected to have a moderate to low impact on the environment.
Labour Act	The **Labour Act of 2007 (No 11)** contains regulations relating to the Health, Safety and Welfare of employees at work. These regulations are prescribed for among others safety relating to hazardous substances, exposure limits and physical hazards. Regulations relating to the Health and Safety of Employees at Work promulgated in terms of the Labour Act 6 of 1992 (GN156, GG1617 of 1 August 1997): **Regulation 178(2) (d), 180** refers to Chemical safety data sheets (CSDS) for all hazardous chemical substances must be prepared by the manufacturer or supplier thereof. These must be provided to every employer using such substances. The CSDS must contain essential health and safety information. **Regulation 178(2)(d), 182** refers to hazardous substances must at any time be stored in such a manner that they do not create a risk to the health and safety of employees or other persons, nor any risk of contamination of the environment, due to seeping, leaking, fire or accidental release. **Regulation 183** states amongst other things that hazardous waste and deposits must be removed at intervals and by methods appropriate to the type of hazard which they constitute.

CONCLUSION AND IMPACT

Green Earth Environmental Consultants believe the above administrative, legal and policy requirements which specifically guides and governs the project at the proposed site will be followed and complied with in the assessment of the activity.

11. AFFECTED RECEIVING ENVIRONMENT

11.1. CLIMATE

In broad terms, the climate can be described as semi-arid, with summer rainfalls and highest temperatures occurring during October and February. Maximum temperatures recorded in the area vary just under 40 degrees Celsius with an average annual temperature of more than 22 degrees Celsius (*Weather - the Climate in Namibia*, 1998 – 2012).

Rainfall in the form of thunderstorms is experienced in the area during the summer months between October and April. It is further characterised by relatively high average mean annual rainfall of 400 - 500mm in comparison to 250mm for the entire country. Over 70% of the rainfall occurs in the period between November and March with mean annual gross evaporation of 2600-2800mm (*Weather - the Climate in Namibia*, 1998 – 2012).

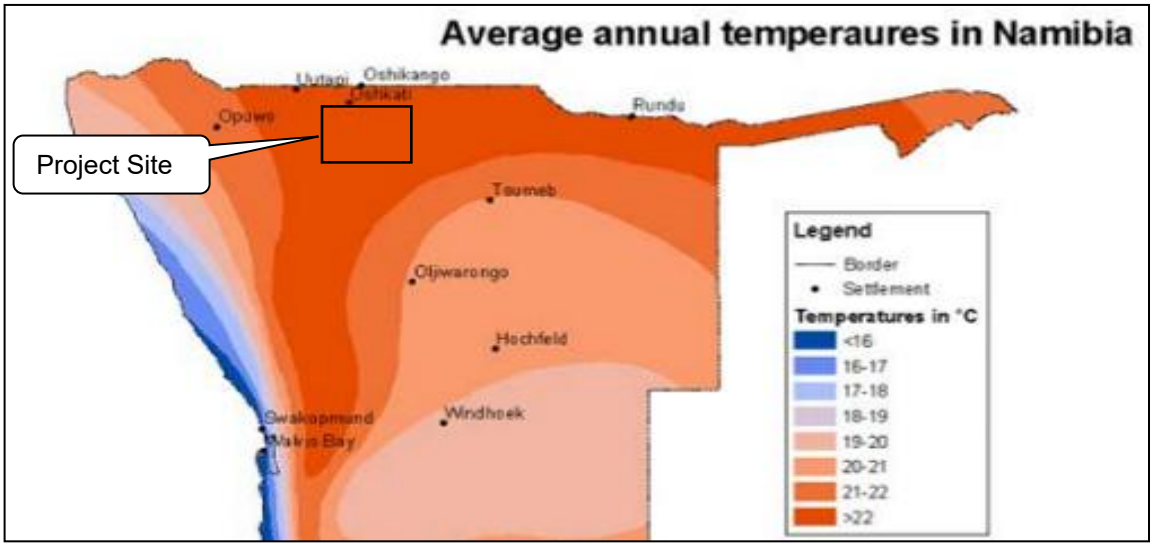

Figure 7: Average temperatures (Atlas of Namibia Project, 2002)

11.2. GEOLOGY, SOILS AND GEOHYDROLOGY

The Project Site is located in the Kalahari Group. See *Map* below:

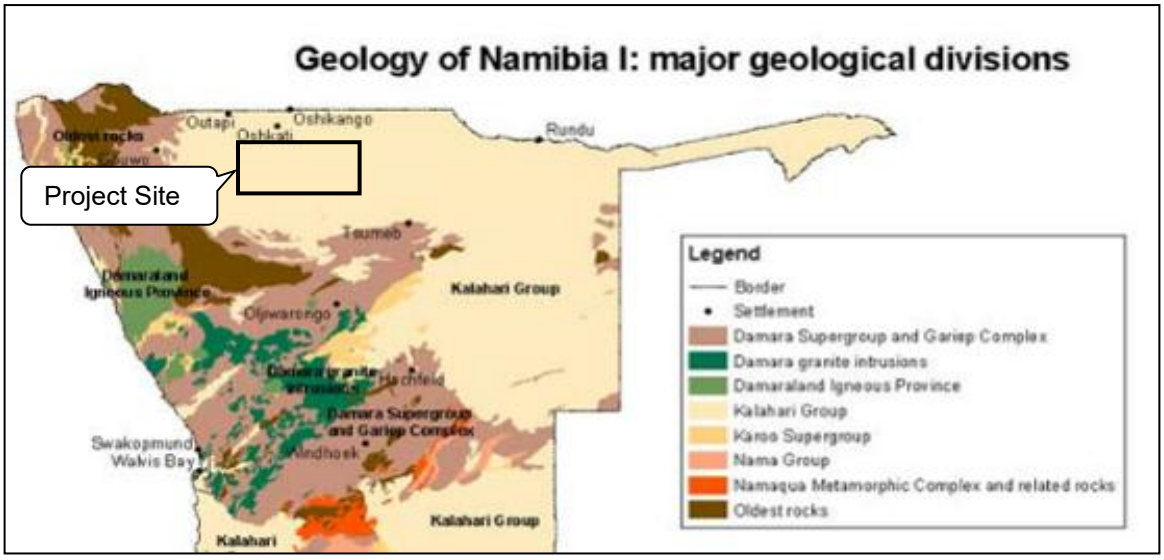

Figure 8: Geology of Namibia (Atlas of Namibia Project, 2002)

The following information was obtained from *Geo Pollution Technologies (Pty) Ltd (2021)*:

TOPOGRAPHY & DRAINAGE: "The landscape is classified as in an Oshana system. A low gradient anatomising to braided fluvial system, which periodically floods, is present in

the area. The site is located within the Cuvelai Basin which drains into the Etosha Pan. Local topography is flat with poor surface flow channel development. Rainwater would mostly pool and infiltrate into the sandy soils. No permanent surface water is present nearby, but water does collect in depressions (Oshanas) in the general area of Ondangwa and shallow perched aquifers are typically formed by infiltrating water. Local communities are often reliant on these water bodies and perched aquifers for livestock and own use. Flooding during good rainy seasons is a concern in Ondangwa" (*Geo Pollution Technologies (Pty) Ltd (2021)*).

GEOLOGY AND HYDROGEOLOGY: "The dominant surface soil cover in the area is cambic Arenosols. Soil cover at the site is from the Kalahari Group (Tk), consisting of sand, calcrete and/or gravel of Quaternary and Tertiary age. The Kalahari Group consists mainly of unconsolidated formations, but some degree of consolidation may be present. Red mudstone, siltstone, sandstone, grit and conglomerate of the Triassic Age – Omingonde Formation of the Ecca Group underlay the Kalahari Group. Groundwater flow would be mostly through primary porosity, but flow along fractures, faults (secondary porosity) and other geological structures present within the formations might take place where consolidated layers are present. Subsurface water in the area is utilized, with 12 known boreholes in a 5 km radius. Water quality is generally of a poor type (Class D). Boreholes yield on average 5 m3/h and the water level is borehole depth dependent but shallow water levels around 5 m deep is common. The site does not fall within a water controlled area, however groundwater remains the property of the Government Republic of Namibia" (*Geo Pollution Technologies (Pty) Ltd (2021)*).

11.3. BIODIVERSITY AND VEGETATION

Erf 1213, Ondangwa forms part of the Tree and Shrub Savannah Biome (specifically the Highland Savannah). The project site is showing evidence of human interference, limited to no vegetation, shrubs or trees are present on the site.

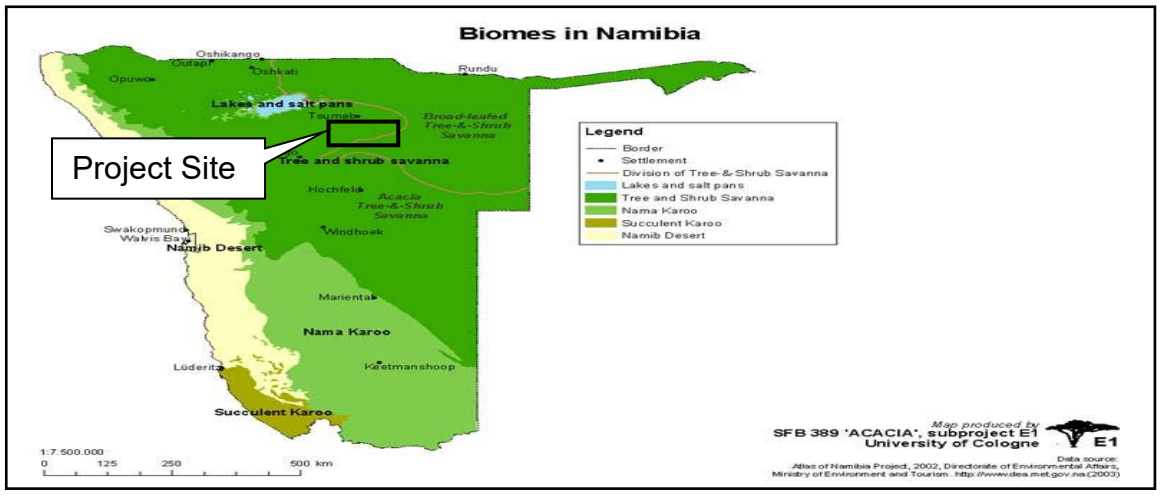

Figure 9: Biomes in Namibia (Atlas of Namibia, 2002)

Only the necessary plants/vegetation will be removed if necessary for possible future construction. The natural characteristics of the project site namely the vegetation clearance and the destruction of habitats is expected to further on have a low impact on the

environment before the mitigation measures are taken and after the mitigation measures are taken, the impact will be very low.

11.4. SOCIAL-ECONOMIC COMPONENT

The site is surrounded by land that is zoned for 'business' and 'industrial' uses. This area has already been developed and is fully serviced with bulk services. The buildings erected in this area are mainly used for warehousing, storage of fuel, manufacturing, retail and residential purposes. The current operations will not have a negative impact on the social environment as it is in line with the current uses in this area. It thus has a positive impact on the social environment. The socio-economic characteristics of the area are continuously changing as more economic activities are established within the area.

11.5. CULTURAL HERITAGE

The proposed project site is not known to have any historical significance prior to or after Independence in 1990. The specific area does not have any National Monuments and the specific site has no record of any cultural or historical importance or on-site resemblance of any nature. No graveyard or related article was found on the site.

11.6. HEALTH

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). A health and safety officer are employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace. The introduction of external workers into the area is sometimes accompanied with criminal activities posing security risks for neighbours. However, the proponent will take certain measures to prevent any activity of this sort. The welfare and quality of life of the neighbours and workforce need to be considered for the project to be a success on its environmental performance. Conversely, the process should not affect the overall health of persons related to the project including the neighbours.

12. IMPACT ASSESSMENT AND EVALUATION

The Environmental Impact Assessment sets out potential positive and negative environmental impacts associated with the proposed project. The following assessment methodology will be used to examine each impact identified, see *Table* below:

Table 2: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)	
Impact Type	+	Positive
	O	No Impact

	-	Negative
Significance of impact being either	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

Probability:	Duration:
5 – Definite/don't know	5 - Permanent
4 – Highly probable	4 – Long-term (impact ceases)
3 – Medium probability	3 – Medium term (5 – 15 years)
2 – Low probability	2 – Short-term (0 – 5 years)
1 – Improbable	1 - Immediate
0 - None	
Scale:	Magnitude:
5 – International	10 – Very high/don't know
4 – National	8 - High
3 – Regional	6 - Moderate
2 – Local	4 - Low
1 – Site only	2 - Minor
	0 - None

The impacts on the receiving environment are discussed in the paragraphs below.

12.1. IMPACTS DURING CONSTRUCTION

Some of the impacts that the development will have on the environment includes water will be used for the construction and operation activities, the risk of surface and ground water pollution, electricity will be used, the impact on access, traffic and safety, a sewer system will be constructed and wastewater will be produced on the site that will have to be handled.

12.1.1. WATER USAGE

Water is a scarce resource in Namibia and therefore water usage should be monitored and limited in order to prevent unnecessary wastage. The proposed project might make use of water in its construction phase and operations.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Water	-	2	2	4	2	L	L

12.1.2. ECOLOGICAL IMPACTS

The proposed infrastructure will be constructed in an area that has limited to no vegetation. Special care should be taken to limit the destruction or damage to any vegetation. Impacts on fauna and flora are expected to be minimal. Disturbance of areas outside the designated working zone is not allowed.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology	-	1	2	4	2	L	L

12.1.3. DUST POLLUTION AND AIR QUALITY

Dust generated during the transportation of building materials; construction and installation of bulk services, and problems thereof are expected to be low and site specific. Dust is expected to be worse during the winter months when strong winds occur. Release of various particulates from the site during the construction phase and exhaust fumes from vehicles and machinery related to the construction of bulk services are also expected to take place. Dust is regarded as a nuisance as it reduces visibility, affects the human health and retards plant growth. It is recommended that regular dust suppression be included in the construction activities, when dust becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	2	2	M	L

12.1.4. NOISE IMPACT

An increase of ambient noise levels at the proposed site is expected due to the construction activities. Noise pollution due to heavy-duty equipment and machinery might be generated. It is not expected that the noise generated during construction will impact any third parties due to the distance of the neighbouring activities. Ensure all mufflers on vehicles are in full operational order; and any audio equipment should not be played at levels

considered intrusive by others. The construction staff should be equipped with ear protection equipment.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Noise	-	2	1	4	2	M	L

12.1.5. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and general public are of great importance. Workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace.

Safety issues could arise from the earthmoving equipment and tools that will be used on site during the construction phase. This increases the possibility of injuries and the contractor must ensure that all staff members are made aware of the potential risks of injuries on site. The presence of equipment lying around on site may also encourage criminal activities (theft).

Sensitize operators of earthmoving equipment and tools to switch off engines of vehicles or machinery not being used. The contractor is advised to ensure that the team is equipped with first aid kits and that these are available on site, at all times. Workers should be equipped with adequate personal protective gear and properly trained in first aid and safety awareness.

No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises. Proper barricading and/or fencing around the site especially trenches for pipes and drains should be erected to avoid entrance of animals and/or unauthorized persons. Safety regulatory signs should be placed at strategic locations to ensure awareness. Adequate lighting within and around the construction locations should be erected, when visibility becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

12.1.6. CONTAMINATION OF GROUNDWATER

Care must be taken to avoid contamination of soil and groundwater. Use drip trays when doing maintenance on machinery. Maintenance should be done on dedicated areas with linings or concrete flooring. The risk can be lowered further through proper training of

staff. All spills must be cleaned up immediately. Excavations should be backfilled and sealed with appropriate material, if it is not to be used further.

Prevention of potential leakages that could lead to surface water and groundwater pollution is crucial. Proper containment mechanisms must be installed to contain any release that might take place from spillages during loading/offloading of vehicles. These mechanisms include the following:

- All loading and offloading should be done on surfaces with adequate spillage control.
- Spillage control procedures must be in place according to SANS 10089 (1) standards.
- These include bunding around the loading areas with appropriate slopes (1:100), as well as the construction of bund walls and floors that are liquid tight and that are not prone to deterioration under the effects of any petroleum product.
- Because of the shallow water table in the area, the bunded areas must be sealed using industry approved methods (SANS).
- The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, including the correct use of sumps and regular reporting of spillages, must be audited and corrections made where necessary.
- The condition of the fuel reticulation system, both existing and new, will have to be checked regularly and repaired, if necessary, to prevent leakages.
- Proper training of operators must be conducted on a regular basis.
- Any spillage of more than 200/ must be reported to the relevant authorities and remediation implemented.
- Spill clean-up equipment must be available on site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater	-	2	2	2	2	M	L

12.1.7. CONTAMINATION OF SURFACE WATER

Contamination of surface water might occur through oil leakages, lubricants and grease from the equipment and machinery during the installation, construction and maintenance of bulk services at the site. Oil spills may form a film on water surfaces in the nearby streams causing physical damage to water-borne organisms.

Machinery should not be serviced at the construction site to avoid spills. All spills should be cleaned up as soon as possible. Hydrocarbon contaminated clothing or equipment should not be washed within 25m of any surface water body.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Surface water	-	2	2	4	3	M	L

12.1.8. SEDIMENTATION AND EROSION

The surrounding area is partly covered by vegetation. The vegetation is stabilizing the area against wind and water erosion. Vegetation clearance and creation of impermeable surfaces could result in erosion in areas across the proposed area. The clearance of vegetation will further reduce the capacity of the land surface to slow down the flow of surface water, thus decreasing infiltration, and increasing both the quantity and velocity of surface water runoff. The proposed construction activities might increase the number of impermeable surfaces and therefore decrease the amount of groundwater infiltration. As a result, the amount of storm water during rainfall events could increase. If proper storm water management measures are not implemented this will impact negatively on the water courses close to the site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Erosion and Sedimentation	-	1	2	4	2	M	L

12.1.9. GENERATION OF WASTE

This can be in a form of rubble, cement bags, pipe and electrical wire cuttings. The waste should be gathered and stored in enclosed containers to prevent it from being blown away by the wind. Contaminated soil due to oil leakages, lubricants and grease from the construction equipment and machinery may also be generated during the construction phase.

The oil leakages, lubricants and grease must be addressed. Contaminated soil must be removed and disposed of at a hazardous waste landfill. The contractor must provide containers on-site, to store any hazardous waste produced. Regular inspection and housekeeping procedure monitoring should be maintained by the contractor.

The Proponent intends to appoint and contract specialist waste managers to collect and dispose of the waste generated on the site. The proponent must ensure that the subcontractors complied with the applicable Namibian Legislation, Policies and Practices.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste	-	1	2	4	2	M	L

12.1.10. TRAFFIC AND ROAD SAFETY

All drivers of delivery vehicles and construction machinery should have the necessary driver's licenses and documents to operate these machines. Speed limit warning signs must be erected to minimise accidents. Heavy-duty vehicles and machinery must be tagged with reflective signs or tapes to maximize visibility and avoid accidents.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Traffic	-	2	2	4	3	M	L

12.1.11. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

The Proponent will put in the necessary fire protection infrastructure / extinguishers as per requirements. It is advised that a specialist Fire Protection Specialist is contracted to introduce a proper fire protection plan with the required infrastructure and to oversee the annual auditing and maintenance of the infrastructure.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	2	4	2	M	L

12.1.12. SENSE OF PLACE

The placement, design and construction of the proposed infrastructure should be as such as to have the least possible impact on the natural environment. The proposed activities will not have a large/negative impact on the sense of place in the area since it will be constructed in a manner that will not affect the neighbouring erven / portions and it will not be visually unpleasing.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Nuisance Pollution	-	1	1	2	2	L	L

12.2. IMPACTS DURING OPERATIONAL PHASE

12.2.1. ECOLOGICAL IMPACTS

Staff and visitors should only make use of walkways and existing roads to minimise the impact on the environment. Minimise the area of disturbance by restricting movement to the designated working areas during maintenance.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology Impacts	-	1	2	4	2	L	L

12.2.2. DUST POLLUTION AND AIR QUALITY

Vehicles transporting goods and staff will contribute to the release of hydrocarbon vapours, carbon monoxide and sulphur oxides into the air. Possible release of sewer odour, due to sewer system failure of maintenance might also occur. All maintenance of bulk services and infrastructure at the project site must be designed to enable environmental protection.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	4	M	L

12.2.3. CONTAMINATION OF GROUNDWATER

Spillages might also occur during maintenance of the sewer system. This could have impacts on groundwater especially in cases of large sewer spills. Proper containment should be used in cases of sewerage system maintenance to avoid any possible leakages. Oil and chemical spillages may have a heath impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exits.

Prevention of potential leakages that could lead to surface water and groundwater pollution is crucial. Proper containment mechanisms must be installed to contain any release that might take place from spillages during loading/offloading of vehicles. These mechanisms include the following:

- All loading and offloading should be done on surfaces with adequate spillage control.
- Spillage control procedures must be in place according to SANS 10089 (1) standards.
- These include bunding around the loading areas with appropriate slopes (1:100), as well as the construction of bund walls and floors that are liquid tight and that are not prone to deterioration under the effects of any petroleum product.
- Because of the shallow water table in the area, the bunded areas must be sealed using industry approved methods (SANS).
- The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, including the correct use of sumps and regular reporting of spillages, must be audited and corrections made where necessary.
- The condition of the fuel reticulation system, both existing and new, will have to be checked regularly and repaired, if necessary, to prevent leakages.
- Proper training of operators must be conducted on a regular basis.
- Any spillage of more than 200/ must be reported to the relevant authorities and remediation implemented.
- Spill clean-up equipment must be available on site.

Impact Evaluation

Aspect	**Impact Type**	**Scale**	**Duration**	**Magnitude**	**Probability**	**Significance**	
						Unmitigated	Mitigated
Groundwater contamination	-	2	2	4	2	M	L

12.2.4. GENERATION OF WASTE

Household waste from the activities at the project site and from the staff working at the site will be generated. This waste will be collected, sorted to be recycled and stored in on site for transportation and disposal at an approved landfill site.

Impact Evaluation

Aspect	**Impact Type**	**Scale**	**Duration**	**Magnitude**	**Probability**	**Significance**	
						Unmitigated	Mitigated
Waste Generation	-	1	2	2	2	M	L

12.2.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, storm-water or water into the environment due to pipeline/system failure. As a result, the spillage could be released into the environment and could potentially be health hazard to surface and groundwater. Proper reticulation pipelines and drainage systems should be installed. Regular bulk services infrastructure and system inspection should be conducted.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-	1	1	4	2	M	L

12.2.6. FIRES AND EXPLOSIONS

There should be enough water available for firefighting purposes. Ensure that all firefighting devices are in good working order and are serviced. All personnel must be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	1	4	2	M	L

12.2.7. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment).

No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	3	4	2	M	L

12.3. CUMULATIVE IMPACTS

These are impacts on the environment, which results from the incremental impacts of the construction and operation of the proposed project when added to other past, present, and reasonably foreseeable future actions regardless of what person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period. In relation to an activity, it means the impact of an activity that in it may not become significant when added to the existing and potential impacts resulting from similar of diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed project includes sewer damages/maintenance, vegetation and animal disturbance, uncontrolled traffic and destruction of the natural environment. These impacts could become significant especially if it is not properly supervised and controlled. This could collectively impact on the environmental conditions in the area. Cumulative impacts could occur in both the construction and operational phase.

Impact Evaluation

Aspect	**Impact Type**	**Scale**	**Duration**	**Magnitude**	**Probability**	**Significance**	
						Unmitigated	Mitigated
Cumulative Impacts	-	1	3	4	3	L	L

13. INCOMPLETE OR UNAVAILABLE INFORMATION

The exact amount of people that will be employed will depend on the type and scope of the activities and the number of individuals needed at each phase of the operations. The Environmental Management Plan (EMP) therefore include all the possible negative effects of the project in general that could be operated on the site in order to prevent any pollution or harmful impacts whether to neighbours or the environment.

14. CONCLUSION

In line with the Environmental Management Act (No 7 of 2007), *Green Earth Environmental Consultants* have been appointed to conduct an Environmental Impact Assessment (EIA) and prepare an Environmental Management Plan (EMP) for the Environmental Clearance for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region for Bachmus Oil & Fuel Supplies (Pty) Ltd.

The specific site has the full potential to be used for the proposed activities. It is believed that the activities will not have a severe negative effect on the environment. It is also believed that this project can largely benefit the economic and employment needs of the area.

The negative environmental impacts that may be visible in the operational phase of the project include increases in solid waste generation and wastewater generation, can result in an increase in traffic on the nearby roads and there can be an impact on the occupational health and safety of workers. As a result of the above-mentioned possible negative impacts on the receiving and surrounding environment, an Environmental Management Plan (EMP) is required to eliminate and guide the operational phase of the project. The operations of Bachmus Oil & Fuel Supplies (Pty) Ltd are believed to be an asset to the residents of Ondangwa and the Namibian citizens because employment is made available and petroleum products for which there is a need.

After assessing all information available on this project, *Green Earth Environmental Consultants* are of the opinion that the project of Bachmus Oil & Fuel Supplies (Pty) Ltd will not have a large impact on the environment. The accompanying EMP will focus on mitigation measures that will remediate or eradicate the negative or adverse impacts.

15. RECOMMENDATION

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region for Bachmus Oil & Fuel Supplies (Pty) Ltd and to issue an Environmental Clearance for the following 'Listed Activities':

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

- *The construction of facilities for the refining of gas, oil and petroleum products.*

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *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 at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

LIST OF REFERENCES

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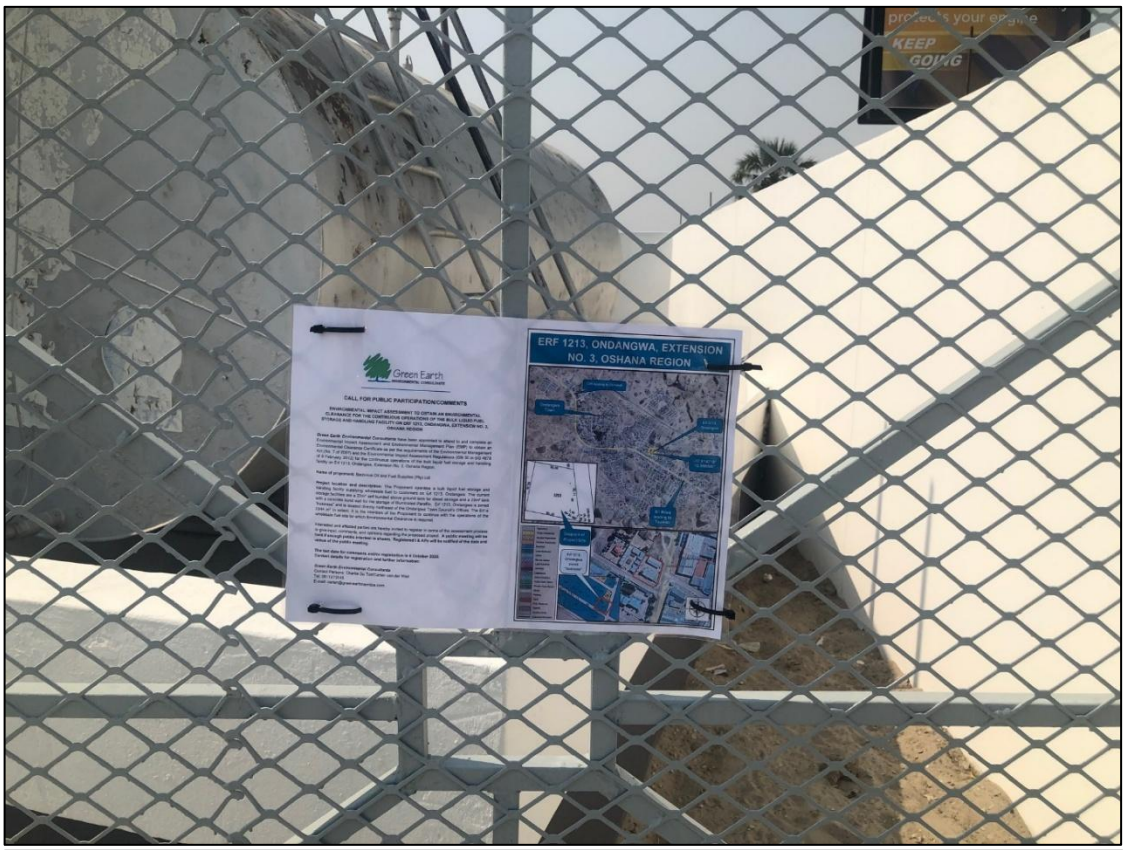
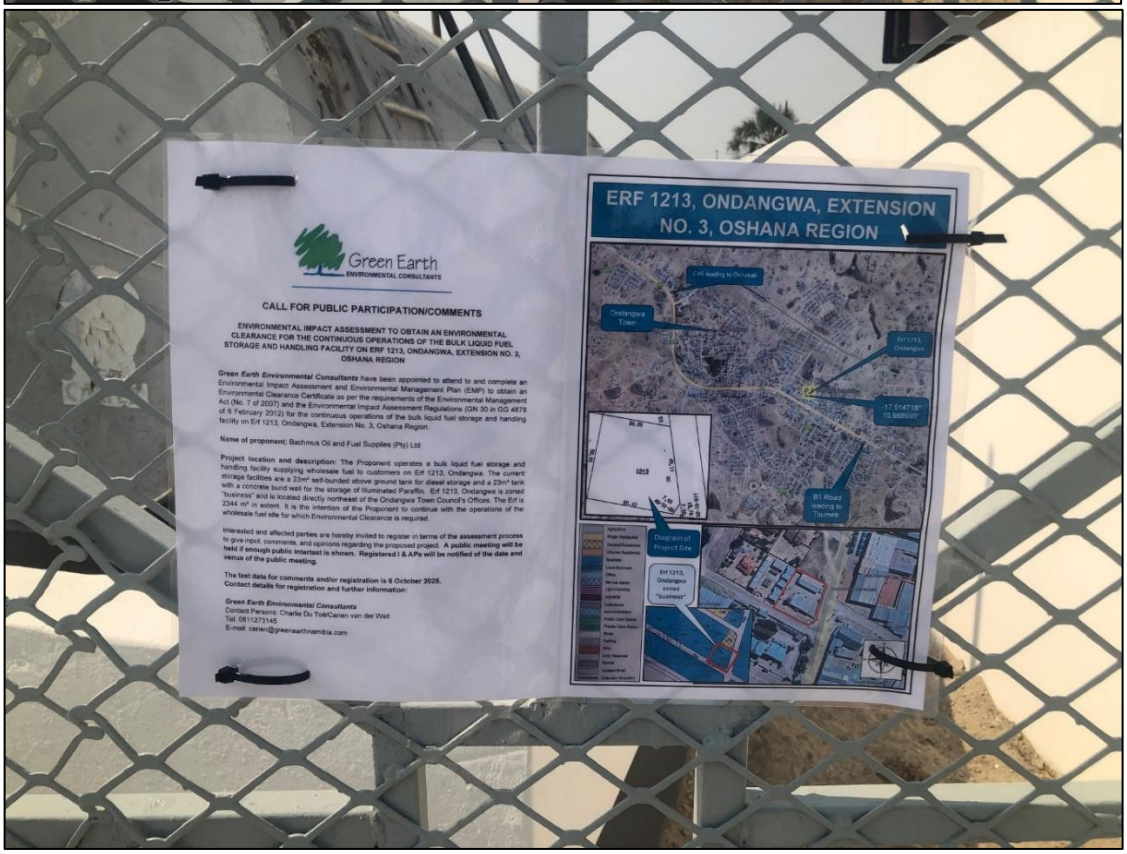
APPENDIX A: NOTICE ON SITE



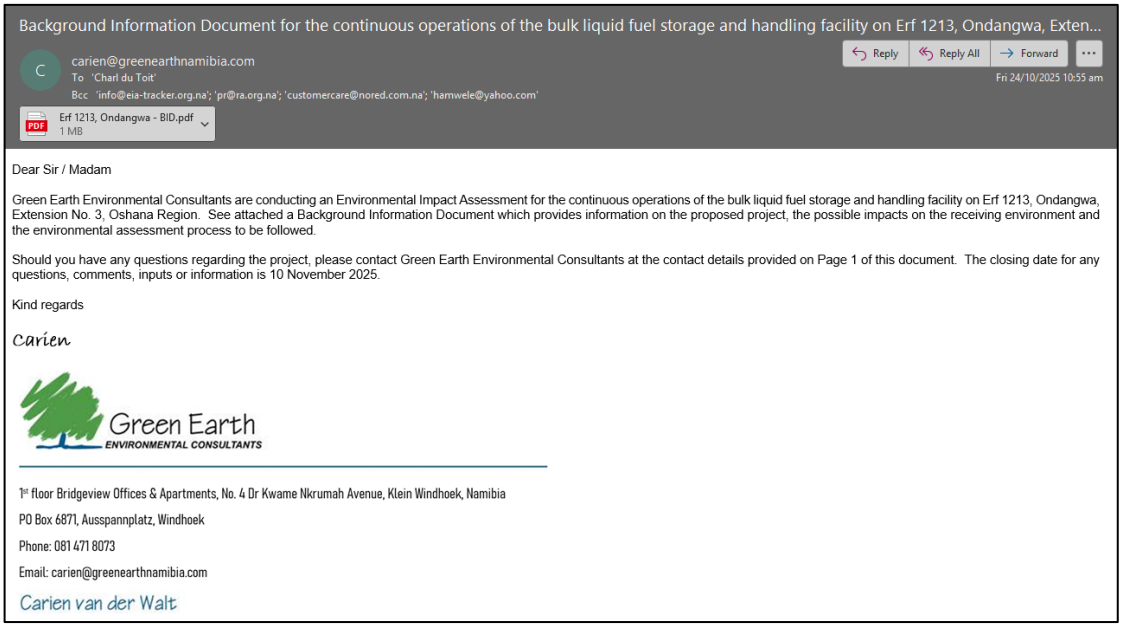


APPENDIX B: LIST OF NEIGHBOURS AND I&APS

ENTITY / PERSON / NEIGHBOUR:	CONTACT DETAILS:
Interested and Affected Party Simeon Namweya	info@eia-tracker.org.na
Ondangwa Town Council Wilhelm Shepya	wshepya@ondangwatc.org.na
Ondangwa Town Council Rachel Naukushu	rnaukushu@ondangwatc.org.na
Ondangwa Town Council Sam Mengela	smengela@ondangwatc.org.na
Ondangwa Town Council Petrus Shipanga	pshipanga@ondangwatc.org.na
Roads Authority	pr@ra.org.na
Nored	customercare@nored.com.na
Erf 1211, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street AMAKALI T	0811299004 P.O. BOX 3646 ONDANGWA
Erf 1212, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street SHAPUMBA ERASTUS	0811280192 P.O. BOX 15383 OSHAKATI
Erf 1214, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street ERASTUS SHAPUMBA	0812416537 P.O. BOX 27 ONDANGWA
Erf 1233, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street ONDANGWA TOWN COUNCIL	065 240101 wshepya@ondangwatc.org.na PRIVATE BAG 2032 ONDANGWA
Erf 1235, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street PAAVO MULANDULENI AMWELE & HUHU CITY	081 124 1173 hamwele@yahoo.com P O BOX 31 ONDANGWA

Erf 1237, ONDANGWA, EXTENSION NO. 3 King Nangolo Amutenya Road and Ondjondjo Street ONDANGWA TOWN COUNCIL	065 240101 wshepya@ondangwatc.org.na PRIVATE BAG 2032 ONDANGWA

APPENDIX C: EMAILS SENT TO I&APS



Background Information Document for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Exten...

Reply | Reply All | Forward

carien@greenearthnamibia.com
To 'Charl du Toit'
Bcc 'info@eia-tracker.org.na'; 'pr@ra.org.na'; 'customercare@nored.com.na'; 'hamwele@yahoo.com'
Fri 24/10/2025 10:55 am

Erf 1213, Ondangwa - BID.pdf
1 MB

Dear Sir / Madam

Green Earth Environmental Consultants are conducting an Environmental Impact Assessment for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region. See attached a Background Information Document which provides information on the proposed project, the possible impacts on the receiving environment and the environmental assessment process to be followed.

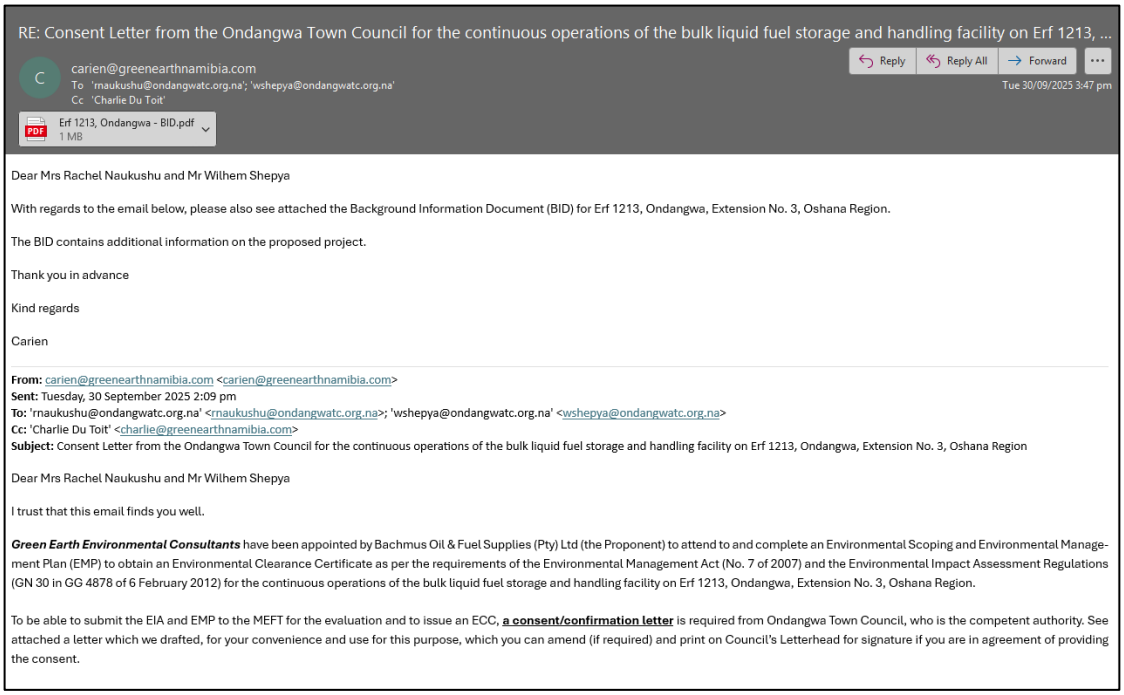
Should you have any questions regarding the project, please contact Green Earth Environmental Consultants at the contact details provided on Page 1 of this document. The closing date for any questions, comments, inputs or information is 10 November 2025.

Kind regards

Carien

Green Earth
ENVIRONMENTAL CONSULTANTS

1st floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia
PO Box 6871, Ausspannplatz, Windhoek
Phone: 081 471 8073
Email: carien@greenearthnamibia.com
Carien van der Walt



RE: Consent Letter from the Ondangwa Town Council for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, ...

Reply | Reply All | Forward

carien@greenearthnamibia.com
To 'rnaukushu@ondangwatc.org.na'; 'wshepya@ondangwatc.org.na'
Cc 'Charlie Du Toit'
Tue 30/09/2025 3:47 pm

Erf 1213, Ondangwa - BID.pdf
1 MB

Dear Mrs Rachel Naukushu and Mr Wilhem Shepya

With regards to the email below, please also see attached the Background Information Document (BID) for Erf 1213, Ondangwa, Extension No. 3, Oshana Region.

The BID contains additional information on the proposed project.

Thank you in advance

Kind regards

Carien

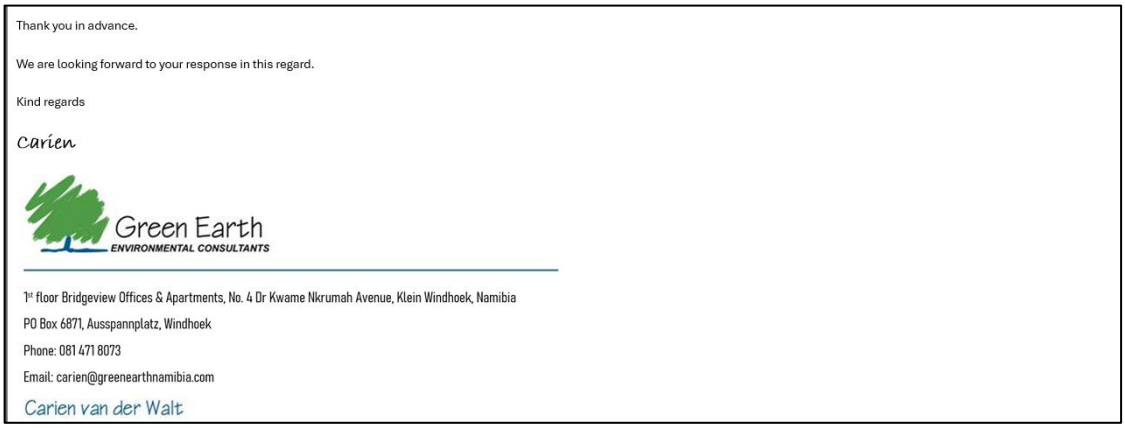
From: carien@greenearthnamibia.com <carien@greenearthnamibia.com>
Sent: Tuesday, 30 September 2025 2:09 pm
To: 'rnaukushu@ondangwatc.org.na' <rnaukushu@ondangwatc.org.na>; 'wshepya@ondangwatc.org.na' <wshepya@ondangwatc.org.na>
Cc: 'Charlie Du Toit' <charlie@greenearthnamibia.com>
Subject: Consent Letter from the Ondangwa Town Council for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region

Dear Mrs Rachel Naukushu and Mr Wilhem Shepya

I trust that this email finds you well.

Green Earth Environmental Consultants have been appointed by Bachmus Oil & Fuel Supplies (Pty) Ltd (the Proponent) to attend to and complete an Environmental Scoping and Environmental Management Plan (EMP) to obtain an Environmental Clearance Certificate as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) for the continuous operations of the bulk liquid fuel storage and handling facility on Erf 1213, Ondangwa, Extension No. 3, Oshana Region.

To be able to submit the EIA and EMP to the MEFT for the evaluation and to issue an ECC, **a consent/confirmation letter** is required from Ondangwa Town Council, who is the competent authority. See attached a letter which we drafted, for your convenience and use for this purpose, which you can amend (if required) and print on Council's Letterhead for signature if you are in agreement of providing the consent.



Thank you in advance.

We are looking forward to your response in this regard.

Kind regards

Carien

Green Earth
ENVIRONMENTAL CONSULTANTS

1st floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia
PO Box 6871, Ausspannplatz, Windhoek
Phone: 081 471 8073
Email: carien@greenearthnamibia.com
Carien van der Walt

APPENDIX D: CURRICULUM VITAE OF CHARLIE DU TOIT

1. Position:	Environmental Practitioner	
2. Name/Surname:	Charl du Toit	
3. Date of Birth:	29 October 1960	
4. Nationality:	Namibian	
5. Education:	Name of Institution	University of Stellenbosch, South Africa
	Degree/Qualification	Hons B (B + A) in Business Administration and Management
	Date Obtained	1985-1987
	Name of Institution	University of Stellenbosch, South Africa
	Degree/Qualification	BSc Agric Hons (Chemistry, Agronomy and Soil Science)
	Date Obtained	1979-1982
	Name of Institution	Boland Agricultural High School, Paarl, South Africa
	Degree/Qualification	Grade 12
	Date Obtained	1974-1978
6. Membership of Professional Association:	EAPAN Member (Membership Number: 112)	

7. Languages:

	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. Employment Record:

From	To	Employer	Position(s) held
2009	Present	Green Earth Environmental Consultants	Environmental Practitioner
2005	2008	Elmarie Du Toit Town Planning Consultants	Manager
2003	2005	Pupkewitz Megabuild	General Manager
1995	2003	Agra Cooperative Limited	Manager Trade
1989	1995	Namibia Development Corporation	Chief Agricultural Consultant
1985	1988	Ministry of Agriculture	Agricultural Researcher

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_____

Charl du Toit

APPENDIX E: CURRICULUM VITAE OF CARIEN VAN DER WALT

1. **Position:** Environmental Consultant
2. **Name/Surname:** Carien van der Walt
3. **Date of Birth:** 6 August 1990
4. **Nationality:** Namibian
5. **Education:**

Institution	Degree/Diploma	Years
University of Stellenbosch	B.A. (Degree) Environment and Development	2009 to 2011
University of South Africa	B.A. (Honours) Environmental Management	2012 to 2013

6. **Membership of Professional Associations:**

   EAPAN Member (Membership Number: 113)

7. **Languages:**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

From	To	Employer	Positions Held
07/2013	Present	Green Earth Environmental Consultants	Environmental Consultant
06/2012	03/2013	Enviro Management Consultants Namibia	Environmental Consultant
12/2011	05/2012	Green Earth Environmental Consultants	Environmental Consultant

9. **Detailed Tasks Assigned:**

Conducting the Environmental Impact Assessment, Environmental Management Plan, Public Participation, Environmental Compliance and Environmental Control Officer

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engage.

_____

Carien van der Walt

APPENDIX F: ENVIRONMENTAL MANAGEMENT PLAN