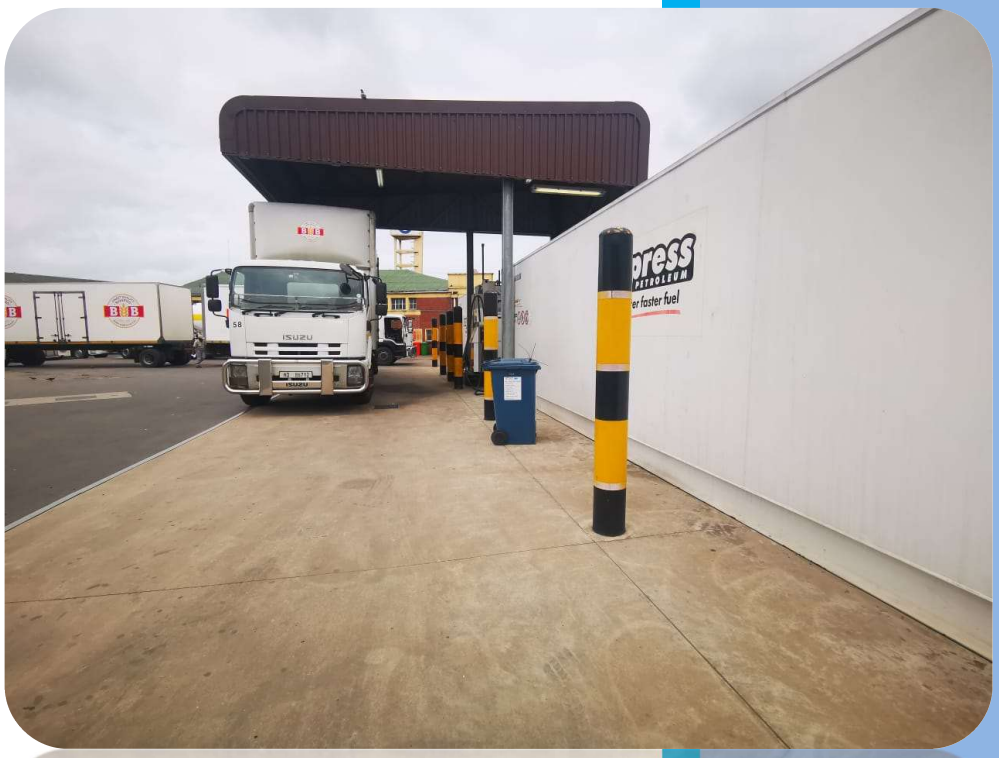
EIA Reference No.: TBC

S24G REPORT

S24G APPLICATION FOR THE UNLAWFUL STORAGE OF DANGEROUS GOODS BY PREMIER FMCG LOCATED AT 341 SYDNEY ROAD, CONGELA, DURBAN, ETHEKWINI MUNICIPALITY, KWAZULU-NATAL.

August 2022



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S24G APPLICATION REPORT IN TERMS OF A BASIC ASSESSMENT PROCESS

For the Unlawful Storage of Dangerous Goods by Premier FMCG Located at 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal.

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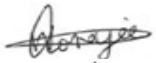
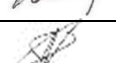
Author	EAP	Wasila Vorajee		August 2022
Co-author	Junior EAP	Nirantar Pillay		August 2022
Reviewed and approved by	Senior EAP	Adila Sheik Gafoor		August 2022

EXECUTIVE SUMMARY

1World Consultants (Pty) Ltd, hereinafter referred to as 1World, has been appointed by Premier FMCG (Pty) Ltd, hereinafter referred to as Premier FMCG, to undertake the required environmental services for the Section 24G rectification process for the unlawful commencement and continuation of a listed activity without environmental authorisation at its Blue Ribbon Bakery and Wheat mill located at 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal.

Premier FMCG has utilised the site since 1852, for the purposes of bread baking and flour milling. Paraffin is utilised in various processes during baking operations, whilst diesel fuels Premier FMCG's delivery truck fleet. In 2007 Eskom announced the implementation of loadshedding, as a means to ease pressure on, and prevent the collapse of, the entire power grid. In response to load shedding, Premier FMCG purchased a diesel generator in an attempt to continue operations on site. Fuel levies in South Africa are consistently rising and as a result so are the costs of paraffin and diesel. In 2019, Premier FMCG expanded their operations due to increasing demand, and are now able to supply KwaZulu-Natal with 360 000 loaves of bread a day. This expansion required a substantial increase in the amounts of paraffin and diesel utilised during operations. Hence, the need to house these substances on site presented itself as a viable alternative to outsourcing them. Aboveground storage tanks (64,6 m3 paraffin tank and 28,75 m3 diesel tank), as well as a fuel filling station were constructed on site.

Bread is considered the most important staple food of humans dating back to prehistoric times. In recent decades, the automated production process of bread resulted in better quality and variety of bread and other wheat products. Premier FMCG's bakery and bread mill is one of the largest producers of a staple food in the KZN region. The site is located in Congela, which is an industrial node close to the Port of Durban and Bayhead. Premier FMCG is responsible for the creation of approximately 633 jobs. The bakery and mill are not expected to have any increased negative impact on surrounding environments or businesses, as it has been operating in an industrial area since 1852. The net benefits of Premier FMCG will be positive, in terms of the production of staple foods and job creation. Therefore, there is no justifiable reason to deny Premier FMCG the right to continue its operations on site.

Legislative requirements:

The activity on site which commenced illegally is listed in terms of National Environmental Management Act (NEMA) (Act No. 107 of 1998) EIA Regulations 2014 (as amended). Activity 14 under Listing Notice 1 of the Government Notice 327 (as amended) was triggered and is therefore the basis for which this Section 24G application is being lodged.

An environmental impact report has been compiled to investigate, evaluate, and assess the impact of the listed activity on the environment. Additionally, a Biodiversity Compliance Statement as well as a Major Hazard Installation Study were compiled to provide a professional and informative assessment of how the receiving environment has been impacted by the activities taking place on site. Some key impacts were:

- Increased Traffic Frequency on Road Infrastructure
- Dust
- Groundwater and Soil Contamination
- Storage and Handling of Hazardous Chemicals
- Generation of Hazardous Waste
- Production of General Waste and Building Rubble
- Fire Risk
- Visual Impacts
- Use of Resources such as Electricity, Water, Oil, Grease, Fuel and Construction Material
- Community health and safety
- Worker health and safety
- Socio Economic Impacts

Specialist studies were conducted to aid in a thorough investigation of the impacts and included:

- A **Biodiversity Compliance Statement** by The Biodiversity Company
- A **Major Hazard Installation Risk Assessment** by Nature & Business Alliance Africa (Pty) Ltd

Mitigation measures to minimise or eliminate impacts were identified by the specialists and Environmental Assessment Practitioner (EAP) and were utilised towards the preparation of the Environmental Management Programme (EMPr). The EMPr must be read in conjunction with this BAR and is essential towards the protection of the environmental elements. As part of the impact assessment an Environmental Management Programme (EMPr) has been compiled, providing more detailed mitigation measures for the operation of the storage tanks and fuel filling station. The successful implementation of relevant management procedures and mitigation measures during the operational phase, as described in this report and the EMPr will ensure that the impacts of the activity are minimal.

During the rating and ranking procedure of possible impacts, no impact had a "no-go" implication for aspects of the project and all impacts could be successfully countered by appropriate mitigation. Significance ratings were considered Medium-Low negative impacts prior to mitigation, however, this rating dropped to Low negative significance once mitigation measures were applied. It is therefore recommended that the continuation of the activity is approved.

The following aspects were taken into consideration when coming to this conclusion:

- The activity provides positive socio-economic benefits to it employees and the wider KwaZulu-Natal economy. Approximately 633 permanent jobs have been created as a result of the activity.
- The aboveground storage tanks and fuel filling station have been successfully constructed and operated since 2019.
- No impacts are rated high significance following mitigation.
- An Emergency Response Plan has been developed for the facility to deal with any emergency issues.
- Premier FMCG is committed to ensuring all possible environmental mitigation measures are incorporated into the operations of the activity, and that the company aims to abide by all relevant environmental legislation, hence, this application.

It is recommended that the activity is approved for continued operations subject to the following:

- The Environmental Management Programme is to become a binding document on site. The EMPr is binding to all contractors associated with Premier FMCG.
- All mitigation measures as detailed in this report are to form an extension of the Environmental Authorisation, thus ensuring applicant/operator adherence.
- The specific conditions as detailed in the Environmental Authorisation are to be enforced on site.
- An external Environmental Control Officer is to be appointed to audit the project at least once every twelve (12) months. A compliance audit report must be compiled against the conditions of the Environmental Authorisation and must be submitted to the authorities within sixty (60) days after completion.
- Incidences of non-compliance by site operators are to be dealt with in a manner so as to ensure practical control and avoidance of any transgressions.

A Public Participation Process (PPP) to review the BAR and EMPr involved consultation with the relevant authorities, the landowners affected along the way, community leaders and other identified Interested and Affected Parties (I&APs). Newspaper advertisements were published to inform the general public of the Basic Assessment Process. An advertisement was published in English on 11 August 2022 in the Rising Sun Overport Newspaper. Site notices were erected at the site on 10 August 2022. A public meeting was not requested or held prior to the distribution of the Draft BAR.

This Section 24G has been prepared in Accordance with the EIA Regulations, 2017 and follows the requirements for a BAR in Appendix 1 of GNR 326.

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DRAFT BASIC ASSESSMENT REPORT

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1. INTRODUCTION

1World Consultants (Pty) Ltd (hereinafter referred to as 1World) has been appointed, by Premier FMCG (Pty) Ltd, as an independent Environmental Assessment Practitioner (EAP) tasked with undertaking the required environmental services for the rectification of the unlawful storage of dangerous goods. The development is located on 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal. The property is located on ERF 10033 Durban within eThekwini Municipality. Access to the site is provided through the entrance on Sydney Road.

Premier FMCG has unlawfully developed an aboveground storage facility and fuel filling station comprising approximately 97 350 litres (97.35 m^3) of dangerous goods on site. Diesel stores are used to fuel Premier's generator, an alternate power supply, to ensure that bakery operations can still be maintained during power outages. Diesel is also used to fuel Premier's trucking fleet for bread delivery. Paraffin is used to fuel various baking operations. As such both paraffin and diesel distribution lines have also been constructed on site. Table 1 highlights the capacities of the diesel and paraffin tanks.

Table 1: Project Specifications

	Site Details
Ward	Ward 32
Property Description	ERF 10033 Durban within eThekwini Municipality
Site Size (storage tanks size only)	236 m^2
Total Building (final development footprint)	33 566 m^2
Capacity of the Above-Ground Storage Tanks	
Paraffin Tank	64 600 litres
Diesel Tank	28 750 litres
Paraffin Day Tanks	2 000 litres (1000-litre x2)
Diesel Day Tanks	2 000 litres (1000-litre x2)
Total Storage of Tanks	**97 350 litres**

1.1. Terms of Reference

This Basic Assessment Report has been prepared by 1World to assess the environmental impacts associated with the construction and operation of the aboveground storage tanks and fuel filling station located at 341 Sydney Road, Congela, Durban, KwaZulu-Natal. This process is being undertaken in support of the application for rectification in terms of Section 24G of the NEMA (Act No. 8 of 2004) for the unlawful commencement or continuation of activities in terms of the environmental impact assessment at 341 Sydney Road, situated on Erf 10033 Durban, within eThekwini Municipality, KwaZulu-Natal.

As a result of non-compliance with Section 24 of NEMA, a rectification process is required for the activities which have already taken place, a S24G application in terms of a Basic Assessment (BA) process must be carried out. The BA Process must be undertaken as per GNR 327 of the Environmental Impact Assessment Regulations, 2017, of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). All the environmental outcomes; identified impacts and residual risks of the Listed Activity being applied for have been noted in this report and assessed accordingly by the Environmental Assessment Practitioner (EAP). The requirements of the BA Process have been followed as per Appendix 1 of GNR 326 (2017) and are consequently adhered to in this report.

It must be noted that the Listed Activities in terms of GNR 327 of the 2017 EIA Regulations are applicable to this project and will trigger activities in the operational phase. This BA Report focuses on the potential impacts that may arise during the operational phase and provides recommended mitigation measures.

Ultimately, the outcome of a BA Process must be to provide the Competent Authority, the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) with sufficient information to provide an informed decision on the Application, in terms of Environmental Authorisation (EA), in order to avoid or mitigate any detrimental impacts that the activity may inflict on the receiving environment.

The activities undertaken by the applicant triggered listed activities within the 2017 EIA Regulations (which were the relevant regulations at that time) and therefore required an environmental authorisation to be obtained. The applicant was not aware that an environmental authorisation was required before the commencement of the construction and operation of the aboveground storage tanks and fuel filling station. As a result of non-compliance, the rectification process is required to be undertaken.

1.2. Pre-application Meeting

A pre-application meeting was held with KZN EDTEA on 31 March 2022 via Microsoft Teams. Minutes for the pre-application meeting is attached to Appendix A. During the pre-application meeting, the EAP introduced the project and presented background information. The Draft Application for EA was reviewed by the Department officials present. Based on the discussions held, the following steps must be undertaken before lodging an Environmental Authorisation (EA) application in terms of an S24G:

- ✓ Premier must provide EDTEA with information encapsulating the full extent of losses that would be experienced should operations on the site be seized.
- ✓ Further investigation regarding the EFZ must be provided to the Department, to confirm applicability of listing notices (LN 3, Activity 10)
- ✓ Traffic impacts as a result of the installation of the storage tanks must be determined and included in the BAR and EMPr.
- ✓ Department will await the S24G application in order to provide the EAP and Premier with an official directive.

This BAR has addressed departments comments accordingly. The S24G Application form was submitted to the Department on 12 August 2022.

1.3. Project Approach

This Basic Assessment Report will be submitted to the Competent Authority in support of the S24G application for rectification, to obtain an ex post facto environmental authorisation. The listed activities triggered by the storage of dangerous goods, at 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal, have been identified and assessed in the BA process being undertaken.
The overall approach to this BA Report included the following activities:

- Desktop Screening of the site in question, to identify environmental sensitivities and constraints.
- Specialist studies, as required per site, to further identify environmental constraints and elements of concern.
- Preparation of an BA Report, that: -
  - Provides relevant background of the project,
  - Summarises key findings,
  - Identifies and assesses impacts of the project during the construction and operational phase,
  - Provide recommendations and mitigation measures for the responsible construction and operation of the facility,
  - Provide need and desirability, motivation, and impact statement from an environmental perspective, and
  - Preparation of an Environmental Management Program (EMPr) for service providers and the Applicant to utilise as a guideline to allow and prohibit tasks, in keeping with the provided Environmental Authorisation that is granted.

- Public and Stakeholder Participation Process, which allows review of the afore-mentioned BA Report, studies and EMPr, for positive engagement which allows holistic, legal, and complete processes for the installation and operation of the facility,
- Application for ex post facto Environmental Authorisation to the Department, which provides all the relevant information for the Competent Authority to make a decision regarding the development.

1.4. Environmental Screening

In terms of GNR 960 (promulgated on 5 July 2019) and Regulation 16(1)(b)(v) of the 2014 EIA Regulations (as amended), the submission of a Screening Report generated from the national web based environmental screening tool is compulsory for the submission of applications in terms of Regulations 19 and 21 of the 2014 EIA Regulations.
The requirement for the submission of a Screening Report for the development is applicable as it triggers Regulation 19 of the 2014 EIA Regulations (as amended). Table 2 provides a summary of the specialist assessment requirements identified for the project site in terms of the screening tool (refer to Appendix A for the report) and responses to each assessment requirement based on the nature and extent of the project.

Table 2: Environmental Screening Tool Analysis

No	Theme	Sensitivity Rating as per the Screening Tool	Comment
1	Agriculture Theme	High Sensitivity	From the preliminary site visit, the EAP determined that the area is actually of low sensitivity. The area in which the listed activity is taking place has been completely transformed - the land has no agricultural production potential as the area is zoned as a commercial area and had been fully developed prior to the construction and operation of the storage tanks. No further assessment has been carried out.
2	Animal Species Theme	Medium Sensitivity	The area in which the site is located has been fully developed into a commercially zoned area, as such, the animal species sensitivity was determined to be low during the preliminary on-site inspection. However, a Compliance Statement has been prepared, and is further discussed below (Chapter 11)
3	Aquatic Biodiversity Theme	Very High Sensitivity	Although the site is zoned for commercial activity, and the area has been fully transformed, the site falls within an Estuarine Functional Zone (EFZ). A Compliance Statement has been prepared, and is further discussed below (Chapter 11)
4	Archaeological and Cultural Heritage Theme	Very High Sensitivity	The activity utilises above-ground storage tanks, however the site was fully transformed before the storage tanks were installed, as such no further Archaeological or Cultural Heritage assessments were undertaken.
5	Civil Aviation Theme	High Sensitivity	As per the Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Civil Aviation Installations (Government Gazette 43110, published in Government Notice No.320) – if the site sensitivity verification differs from the 'high sensitivity' on the screening tool, no further assessment is required. Site sensitivity verification was carried out via a preliminary on-site inspection by the EAP. From the on-site inspection, it was determined that the civil aviation sensitivity is low.
6	Defence Theme	Medium Sensitivity	As per the Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Defence Installations (Government Gazette 43110, published in Government Notice No.320) – if the site sensitivity verification differs from the 'medium sensitivity' on the

			screening tool, no further assessment is required. Site sensitivity verification was carried out via a preliminary on-site inspection by the EAP. From the on-site inspection, it was determined that the defence theme sensitivity is low.
7	Palaeontology Theme	Medium Sensitivity	The activity utilises above-ground storage tanks, however the site was fully transformed before the storage tanks were installed, as such no further palaeontological assessments were undertaken.
8	Plant Species Theme	Low Sensitivity	No further assessment required as the plant species theme is of low sensitivity. The preliminary site-inspection further confirmed that there are no vegetation growth, as the entire area has been fully developed and paved.
9	Terrestrial Biodiversity Theme	Very High Sensitivity	Although the site is zoned for commercial activity, and the area has been fully transformed, the site falls within an Estuarine Functional Zone (EFZ). A Compliance Statement has been prepared, and is further discussed below (Chapter 11)

2. BASIC ASSESSMENT REPORT

2.1. Environmental Assessment Practitioner

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Table 3: Name and Expertise of Representatives of the EAP

Name and Title	Qualifications and Affiliations	Role	Experience with Environmental Assessments
Fatima Peer	B.Sc (Hons) Pr. Sci. Nat., IAIAsa	Senior EAP	10 years
Adila Sheik Gafoor	B.Soc. Sci. (Geog) IAIAsa	Senior EAP	8 years
Wasila Vorajee	B.Sc (Hons) Cand. Sci. Nat., IAIAsa	EAP	5 years
Nirantar Pillay	B.Sc (Hons)	Junior EAP	1 year
Muhammed Loonat	M.Sc: Hydrogeology	Junior EAP	5 months

A Company Profile, CVs and Project Experience for 1World Consultants and EAP Declaration Form is is provided in Appendix B.

2.2. Project Specialists

Table 4: Project Specialists

Name of specialist	Education qualifications	Field of expertise	Section/s contributed to in this basic assessment report	Title of specialist report/s as attached in Appendix E
Andrew Husted	M.Sc Aquatic Health	Wetland Specialist	Summary of Specialist Study Findings and Impacts (Chapter 11)	S24G Application for Above-ground Tanks at Premier, 341 Sydney Road – Compliance Statement
Alfonso Niemand	BSc; MBL; PrM; Cert Sci Nat	Major Hazard Risk Assessor	Summary of Specialist Study Findings and Impacts (Chapter 11)	MHI Risk Assessment for Premier FMCG Durban

3. OBJECTIVES OF THE BASIC ASSESSMENT PROCESS

According to the EIA Regulations (2017), Appendix 1 of GNR 326, the objective of the basic assessment process is as follows.

"The objective of the basic assessment process is to, through a consultative process:

a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;

b) identify the alternatives considered, including the activity, location, and technology alternatives;

c) describe the need and desirability of the proposed alternatives;

d) through the undertaking of an impact and risk assessment process, inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine—

e) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

f) the degree to which these impacts—
   a. (aa) can be reversed;
   b. (bb) may cause irreplaceable loss of resources; and
   c. (cc) can be avoided, managed, or mitigated; and

g) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—
   (i) identify and motivate a preferred site, activity and technology alternative;
   (ii) identify suitable measures to avoid, manage or mitigate identified impacts; and
   (iii) identify residual risks that need to be managed and monitored"

4. LOCATION OF THE ACTIVITY

The Premier FMCG storage tanks and fuel filling station are situated 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal (Figure 1). The property is located at ERF 10033 Durban within eThekwini Municipality. Figure 2 highlights the exact

location of the aboveground storage tanks and filling station within the site. The site is accessed through the entrance situated along Sydney Road.

The 21-digit Surveyor General (SG) number for the properties affected and the coordinates for the activity are provided in Table 5.

Table 5: Site Details

	Premier FMCG (Pty) Ltd
Property Description	341 Sydney Road, Congela, Durban
Farm name	ERF 10033 Durban within eThekwini Municipality
Landowner	G&C Shelf 115 (Pty) Ltd
SG Number	N0FU00850001003300000
Property Size	33 566 m^2
Zoning	General Industrial
GPS Coordinates	29°52'27.43"S and 30°59'50.22"E

As part of the development, a total of 97.35 m^3 of dangerous goods (diesel and paraffin) is stored on site in six (4 x day tanks and 2 x aboveground storage tanks). The site is currently occupied and used for commercial purposes. The areas in the immediate vicinity of the proposed activity are primarily used for warehousing, automotive related stores, and clothing stores.

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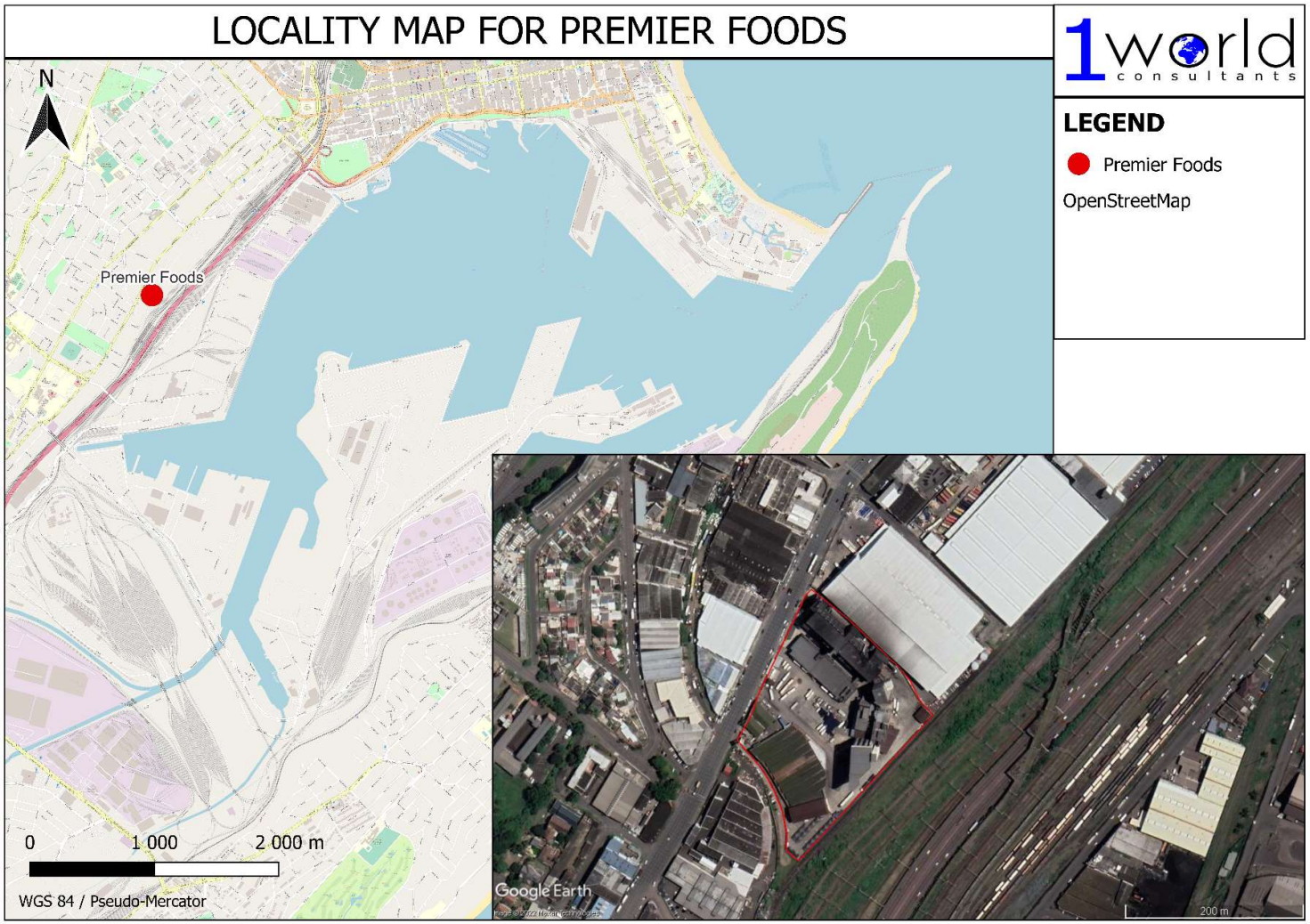

Figure 1: Site and Locality Map.

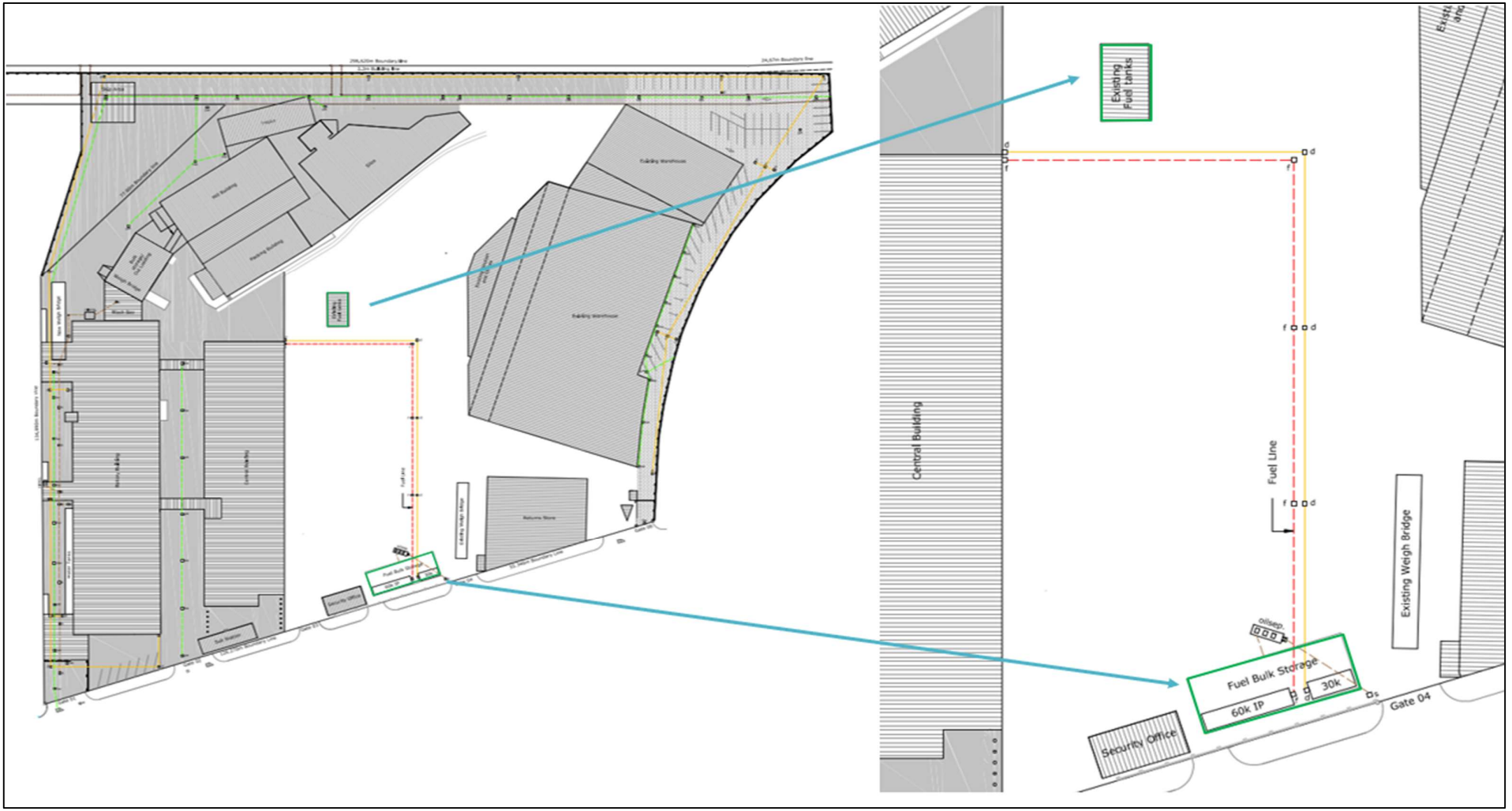

Figure 2: Site layout highlighting the exact location of the tanks within the site.

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5. PROJECT BACKGROUND

The site layout, as well as the tanks specifications are provided in Appendix C. The plan depicts the positioning and scale of:

- Various buildings and warehouses.
- Storage tanks including the pre-existing day tanks.
- Fuel filling station and associated infrastructure.
- Access points, boundary walls and stormwater infrastructure.

The area schedule is as follows:

Site Size	33 566m^2
Bulk Fuel Storage	168 m^2
Day Time Fuel Tanks	68 m^2
Total	236 m^2
Coverage	0.7%

5.1. Project Description

Premier FMCG, founded in 1852, is one of South Africa's principal food manufacturers. Producing over 538 million loaves of bread per annum makes Premier the single largest supplier of bread in South Africa. Premier's Durban Wheat Mill and Bakery is responsible for manufacturing and distributing approximately 360 000 loaves of bread per day throughout KwaZulu-Natal.

Both paraffin and diesel are essential for the daily functioning of business operations - as such Premier had previously installed two paraffin day tanks, and two diesel day tanks, storing a combined total of four cubic metres of hazardous substances on the site. In 2019, Premier installed a further 64.6 m^3 aboveground paraffin storage tank and a 28.75 m^3 aboveground diesel storage tank on the premises, to meet their fuel demands more feasibly.

The site comprises dangerous goods storage tanks as well as a fuel filling station with associated infrastructure. The development is located on 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal. The areas in the immediate vicinity of the proposed activity are used primarily for commercial purposes and include warehousing, automotive related stores, and clothing stores. The site is currently occupied and used for commercial purposes. The storage tank specifications are detailed in Table 6 below.

Table 6: Capacity of Aboveground Storage Tanks

Tank	Capacity (m^3)
Paraffin Tank	64.6 m^3
Diesel Tank	28.75 m^3
Paraffin Day Tank	2 m^3 (1 m^3 x2)
Diesel Day Tank	2 m^3 (1 m^3 x2)
TOTAL VOLUME OF STORAGE TANKS	**97.35 m^3**

The maximum quantity of flammable liquids and substances kept or handled at the site has been duly registered by the eThekwini Metropolitan Municipality Fire and Emergency Services Chief Fire Officer. The certificate of registration is attached to Appendix C.

6. LEGISLATION AND APPLICABLE GUIDELINES

6.1. Applicable Listed Activities

This process is being undertaken in support of the application for rectification in terms of Section 24G of the NEMA (Act No. 8 of 2004) for the unlawful commencement or continuation of activities in terms of the environmental impact assessment at 341 Sydney Road, situated on Erf 10033 Durban, within eThekwini Municipality, KwaZulu-Natal.

Section 24 of NEMA entails a rectification process required for activities that do not comply with the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and have been undertaken without the necessary environmental authorisation. An S24G application in terms of a Basic Assessment (BA) process must be carried out, in terms of the Environmental Impact Assessment (EIA) Regulations (2017) to address this non-compliance. The BA Process must be undertaken as per GNR 327 of the Environmental Impact Assessment Regulations, 2017, of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

All environmental outcomes: identified impacts and residual risks of the Listed Activity being applied for have been noted in this report and assessed accordingly by the Environmental Assessment Practitioner (EAP). The requirements of the BA Process have been followed as per Appendix 1 of GNR 326 (2017) and are consequently adhered to in this report. The following Listed Activity in Government Notice (GN) R 327 (Listing Notice 1) is triggered, requiring a Basic Assessment for the aboveground storage tanks (Table 7). The capacities of the storage tanks are detailed in Table 6 above.

Table 7: Relevant Activities from EIA Regulations, 2017

Activity Number	Description	Applicability
Listing Notice 1: Activity 14	The development and related operation of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	Developers, Premier FMCG (Pty) Ltd, have constructed storage tanks to store diesel and paraffin including a fuel filling station with a combined capacity of more than 80m^3 (97.35m^3).
Listing Notice 3: Activity 10	The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres. **d) In KZN:** i – within an EFZ, iv – within 500m of an EFZ.	The region in which the site is located is commercially zoned. As such, the entire area was fully transformed, from an Estuarine Functional Zone (EFZ) into a commercial space, consisting of buildings such as warehouses and automotive stores. As the EFZ was no longer in existence during the construction and operation of the relevant infrastructure, **this activity was not triggered.**

From the activities listed above, it was determined that a Basic Assessment Process would be required. This Basic Assessment Report will be submitted to the Competent Authority in support of the S24G application for rectification, to obtain an ex post facto environmental authorisation. The applicable listed activities, as per Table 7, have been identified as triggers requiring environmental authorisation. The development triggers this activity as it includes the operation of aboveground dangerous goods storage tanks and a fuel filling station with a combined capacity of more than 80m^3.

6.2. Policy and Legislature

Table 8 provides a list of all applicable legislation, policies and/or guidelines of any sphere of government that are relevant to the

application as contemplated in the EIA regulations.

Table 8: Applicable legislation, policies and/or guidelines.

Title of Legislation, Policy, or Guideline	Administering authority	Date
National Environmental Management Act (Act 107 of 1998) – for its potential to cause degradation of the environment (Section 28).	Department of Environmental Affairs	1998
EIA Regulations GNR 327 and 324 – for identifying the triggers for a basic assessment.	Department of Economic Development, Tourism and Environmental Affairs	2017
Environmental Conservation Act (Act 73) – for potential environmental degradation.	Department of Environmental Affairs	1989
National Water Act (Act 36 of 1998) – for potential to cause pollution of water resources defined under the Act (Section 19).	Department of Water Affairs and Forestry	1998
Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983) – for protection of agricultural resources and for control and removal of alien invasive plants.	National Department of Agriculture	1983
National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) – for protection of biodiversity.	Department of Agriculture and Environmental Affairs and Ezemvelo KZN Wildlife	2004
The National Heritage Resources Act (Act No 25 of 1999 as amended) – for the identification and preservation of items of heritage importance.	South African Heritage Resources Agency	1999
KwaZulu-Nata Amafa and Research Institute Act, 2018 (Act No. 5 of 2018)	KwaZulu-Natal Amafa and Research Institute.	2018
EIA Regulations GNR 326 – for guidelines on the process to be followed and the format of the BAR.	Department of Economic Development, Tourism and Environmental Affairs	2017
Public Participation guideline in terms of NEMA EIA Regulations	Department of Economic Development, Tourism and Environmental Affairs	2017
Spatial Development Framework	eThekwini Municipality	2017/2018
Integrated Development Plan	eThekwini Municipality	2017/2018
eThekwini Municipality By-Laws	eThekwini Municipality	Current
National Climate Change Response Plan White Paper	Department of Environmental Affairs	2011
National Environmental Management: Waste Act	Department of Environmental Affairs	2008
National Environmental Management: Air Quality Act	Department of Environmental Affairs	2004

7. NEED AND DESIRABILITY

Premier FMCG's Durban Wheat Mill and Bakery is situated on 341 Sydney Road, Congela, Durban, eThekwini Municipality, KwaZulu-Natal. The site is entirely occupied by Premier for the purposes of both flour milling and as a bakery. The areas in the immediate vicinity of the site are used primarily for commercial purposes and include warehousing, automotive related stores, and clothing stores.

Both paraffin and diesel are essential for the daily functioning of the business. As such Premier had previously installed two paraffin day tanks, and two diesel day tanks, storing a combined total of four cubic metres of dangerous goods on site. In 2019, Premier installed a further 64.6 m^3 paraffin tank and a 28.75 m^3 diesel tank on the premises, to meet their fuel demands more feasibly.

Currently, Premier utilises between six to seven cubic metres of paraffin daily, to fuel their oven burners as well as their boilers. Approximately five cubic metres of diesel is used to fuel a generator which is used during power outages, to maintain baking operations. Diesel is also used to fuel Premiers trucking fleet which is used for the distribution of bread throughout KwaZulu-Natal. It therefore made financial sense for Premier to establish the storage facility for paraffin and diesel within the property. It is more feasible for Premier to procure these substances directly from the supplier and store it on site than to continually go to various fuel filing stations to refuel the truck fleet. Premier FMCG receive a discount from their fuel supplier, Express Petroleum CC, allowing for manufacturing costs to be kept to a minimum. The supplier agreement, highlighting the discount received, between Premier FMCG and Express Petroleum CC is attached to Appendix C.

Premier FMCG is one of the largest, national producers and distributors of essential food items such as bread and flour, with a prominent footprint in KZN. As bread and flour are both considered essential food products it must be ensured that they reach consumers daily. Various stakeholders are dependent on the supply within the Durban area, as well as the broader KwaZulu-Natal region which it serves. The ceasing of operations would have devastating consequences for Premier, its employees and the communities that depend on its products.

Two chief operating units, namely baking and milling, are directly involved in the manufacturing and distribution of bread and flour products. Each unit is comprised of a large workforce totalling approximately 633 employees (i.e., 428 employees in baking and 205 employees in milling). Together these employees are tasked with supplying five depots in Empangeni, Newcastle, Port Shepstone, Nongoma and Kokstad. Approximately six independent distributors with more than 20 different routes, are dependent on Premier's bread baking capacity for them to buy and sell bread into the various communities that they supply. Should operations at the site be terminated, these distributors would face irreparable economic harm as they will not be able to earn any income during the time operations are halted.

Additionally, Premiers Durban Bakery has a daily output of 360 000 loaves of bread.

Premier is at risk of ceasing operations whilst the S24G rectification process is being undertaken, due to the unlawful construction and operation of the aboveground dangerous goods storage tanks and fuel filling station on site. This could result in negative economic consequences for the province of KwaZulu-Natal, which has in recent years experienced the global Covid-19 pandemic, a major looting event as well as unprecedented flooding. As a result of these events, many of the people within KZN have lost their homes, family members and jobs. Subsequently, many cannot afford the increasing food prices. Premier FMCG therefore consider having the storage tanks and filling station on site vital to reducing manufacturing costs and maintaining reasonable prices of their products. Should operations at the site cease, KZN could experience major essential food shortages.

Lastly, it should be noted that the site was already fully transformed before the storage tanks were installed; therefore, the construction and ongoing operation of the storage facilities did not have a significant impact on the surrounding environment.

8. CONSIDERATION OF ALTERNATIVES

Alternatives are considered to evaluate the proposed plans against the No-Go option. Alternatives to the project site selection; layout plans as well as alternatives to construction methodologies and/ or materials used for the development are evaluated. The potential impacts of the preferred alternative are then evaluated in section 12 below.

8.1. Motivation for the Preferred Site, Activity and Technology Alternative

As per GNR 326 (2017), Appendix 1(2)(b) and 1(3)(g); alternatives for the proposed development are to be identified and considered. Chapter 1 of the EIA Regulations provides an interpretation of the word "alternatives", which are options "in relation to a proposed activity, mean(ing) different means of meeting the general purpose and requirements of the activity, which may include alternatives to the-

a) Property on which or location where the activity is proposed to be undertaken;

b) Type of activity to be undertaken;

c) Design or layout of the activity;

d) Technology to be in the activity; or

e) Operational aspects of the activity;

And includes the option of not implementing the activity."

Based on the above, the following alternatives are presented for the proposed development.

8.2. Alternative to Site Selection – Preferred Site Alternative

The Premier FMCG's Durban bakery and mill had already been fully established and operational since 1852, with the aboveground storage tanks being constructed in 2019, hence this was the only site that was considered for the construction and operation of the filling station and storage tanks. The surrounding areas were completely transformed prior to the development; consequently, the construction and operation of the storage tanks and filling station have had a significantly reduced impact on the environment. No other site alternatives were considered.

8.3. Alternative to Activity Undertaken – Preferred Alternative

On a daily average, Premier utilises between six to seven cubic metres of paraffin, to fuel their oven burners as well as their boilers. Approximately five cubic metres of diesel is used to fuel a generator which is used during power outages, to maintain baking operations. Additionally, diesel is also used to fuel Premiers trucking fleet for delivery of products. It can therefore be determined that the required amounts of paraffin and diesel needed for the operation of the facility are significantly high. In an attempt to keep production costs low, which ultimately affects the cost per loaf of bread, Premier FMCG has opted to store these substances on site in aboveground storage tanks. It should also be noted that Premier FMCG receives a discount when purchasing fuels from their supplier, Express Petroleum CC, which further aides in keeping production costs to a minimum. The supplier agreement, highlighting the discount received, between Premier FMCG and Express Petroleum CC is attached to **Appendix C.**

An alternative to storing these substances in aboveground storage tanks, would be to outsource them. Premier FMCG would then need to purchase and store these substances in lower volumes and send their trucks to various fuel filling stations to refuel. Ultimately, this alternative would result in additional operational costs, increased traffic on public roads and delays in delivery times. Therefore, the most feasible option available to Premier FMCG, was to bulk buy paraffin and diesel and construct an onsite fuel filling station.

8.4. Alternative to Layout and Design – Preferred Alternative

The certificate of compliance for the aboveground storage tanks design specifications is attached to Appendix C.

In 2019, Premier FMCG installed a fuel filling station and aboveground self-bunded storage tanks comprising the following:

a) A 64.6 m^3 paraffin tank

b) A 28.75 m^3 diesel tank

These tanks were installed in addition to the pre-existing paraffin day tanks (2x 1 m^3) and diesel day tanks (2x 1 m^3) that were already present on the site at the time of construction. The maximum quantity of flammable liquids and substances kept or handled at the site has been duly registered by the eThekwini Metropolitan Municipality Fire and Emergency Services Chief Fire Officer. The certificate of registration is attached to Appendix C.

The installation of above-ground storage tanks was the preferred design for the site. These tanks allow for much earlier detection of leaks than underground storage tanks, therefore significantly reducing the risk of contamination to the surrounding environments. Having the tanks placed above ground also allows for better access to the tanks. Ease of access allows repairs and maintenance of the tanks to be undertaken more rapidly and efficiently. As a result of more efficient maintenance, the lifespan of the aboveground tanks is increased substantially. Consequently, the fuel stored in the tanks is cleaner due to the frequency at which maintenance occurs.

The position of the storage tanks and filling station within the site were designed to ensure that suppliers can more easily access the storage tanks, to minimise the likeliness of spillages occurring when transferring the dangerous goods. As the filling station is located near the main access point of the site, Premiers trucking fleet access the fuel filling station, without causing additional traffic within the site. Further to the traffic impacts, because the filling station was constructed on site, delivery trucks no longer need to use the surrounding public roads to find different fuel filling stations to refuel. As a result of this, there is reduced traffic (often caused by the delivery trucks,) throughout the roads surrounding the premises.

The above-ground tanks were the preferred option, as the installations of these tanks also requires less construction work. No earthworks were conducted to install the above-ground tanks, resulting in reduced environmental and economic impacts. The points above serve to highlight why the aboveground tanks were the preferred alternative.

Plate 1: 64000 litre paraffin storage tanks and fuel filling station

Plate 2: Opening of aboveground self-bunded paraffin storage tank

Plate 3: 28 750 litre diesel storage tank

Plate 4: Opening of aboveground self-bunded diesel storage tank

Plate 5: 1000 litre diesel day tank

Plate 6: 1000 litre paraffin day tank

Plate 7: Fuel dispensing equipment

8.5 Technology Alternative

Alternative 1: Open-bunded Storage Tanks

This design calls for the paraffin and diesel storage tanks to be placed within an open bund. The bund is installed to ensure that in the event of the storage tank leaking hazardous substances, there is limited damage to the surrounding environment. Ideally, bunding prevents leaks from spreading into the surrounding environment, therefore minimising the damage that the leak or spill may cause. However, this alternative was not chosen as spilled fuel that collects within the bund would still be exposed to natural elements such as water and air. Fumes from the leak would be released into the atmosphere causing pollution. Further to this, any rainwater that enters the bund would be contaminated by the collected hazardous substances, ultimately resulting in this water needing to be treated prior to disposal.

Preferred Alternative: Self-bunded / Double-walled Storage Tanks

Self-bunded storage tanks allow for improved protection of the surrounding environment in the event of any spills or leaks. Storage tanks are completely contained within the bund ensuring that no leaks are exposed to the elements. The design of the self-bunded storage tanks is attached to Appendix C.

Unlike open bunded tanks, there is no air pollution as gases from the hazardous substances are completely prevented from interacting with the atmosphere. Furthermore, rainwater is unable to enter the bund, preventing the mixing of hazardous substances with water, as well as eliminating the transfer of any dangerous substances to stormwater drains. Safely collecting the spilled hazardous substances within the self-bunded tank, allows these substances to be reused by Premier and is therefore the preferred technology alternative.

8.6 No-Go Alternative

The No-Go Alternative would require the decommissioning the storage tanks and fuel filling station, thereby discontinuing the unlawful listed activity. The ceasing of operations would have devastating consequences from Premier, its employees and the communities it provides products to throughout KwaZulu-Natal. Both bread and flour, which are manufactured at the site, are considered essential food products, and therefore need to reach consumers daily. As such, the no-go alternative was not considered as an option.

9. PUBLIC PARTICIPATION

The Public Participation Process (PPP) is a requirement in terms of the 2017 EIA Regulations of the National Environmental Management Act, 1998 (Act 107 of 1998) and it forms an integral part of any EIA process. This section provides information pertaining to the PPP that was conducted by 1World Consultants during this Basic Assessment Process. The purpose of this process is to gather information from the community and relevant Stakeholders that could ultimately affect the decision-making process concerning the planning, construction and operational phases of the proposed development. The community and public have been identified as I&APs and have been given the opportunity to participate in this process. Their comments, whether positive or negative, will influence the decision of the Authorities and the developer's final actions.

9.1. Objectives of the PPP

The PPP has the following objectives:

- To inform I&APs as well as all Stakeholders of the proposed development.
- To provide an opportunity for I&APs and Stakeholders to raise concerns and make suggestions.
- To promote transparency and an understanding of the project and its consequences.
- To serve as a structure for liaison and communication with I&APs and Stakeholders.

Any conclusions agreed upon must be socially, financially, and technically acceptable and feasible in order to meet the requirements of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), and the vision of the proposed development.

9.2. Public Participation Process Followed

The following PPP was conducted for the development:

9.2.1. Written Notifications

Interested and Affected Parties (I&APs) were identified and notified of the Basic Assessment. A Background Information Document (BID) was prepared and distributed via email. The BID provided information on the proposed development, the site and on the process to be followed by the EAP. A copy of the BID and the distribution list, is provided in Appendix D.

9.2.2. Newspaper Advertisement

A newspaper advertisement was published to inform the public of the BA Process. The advertisement was published in English in the Overport Rising Sun Newspaper on 11 August 2022. A copy of the advertisement is provided in Appendix D.

9.2.3. Site Notice Boards

Site notice boards were erected on the boundary of the site on 10 August 2022. As per Chapter 6, Regulation 41(4)(a) of 2017, the size of the notice boards was approximately 60cm by 42cm (size A2). The notice boards have been provided in English with illustrations of the property. A copy of the site notice board and pictures are provided in Appendix D of this BAR. The purpose of the notice board is to inform the community members of the proposed BA Application and the proposed development.

Details of the EAP were also provided to facilitate public participation

9.2.4. Landowner Notification

Interested and Affected Parties (I&APs) were identified and notified of the Basic Assessment Process. A Background Information Document (BID) was prepared and distributed to identified stakeholders. The BID provided information on the proposed development, the site and on the process to be followed by the EAP. To ensure maximum effort in conducting public participation, a copy of the BID and a Landowner Notification Letter was hand delivered to neighbours on 10 August 2022. Hard copies of the BIDs were hand delivered at neighbouring businesses. Table 9 lists the physical addresses of those identified properties within proximity of the development site. Figure 6 indicates the properties visited within a 100m radius during the Public Participation stage. The signed registered is attached to Appendix D.

Table 9: BID Distribution Locations

Key	Physical Address	BID Delivery
	Proposed Project Site	N/A
1	Fishwicks, 439 Sydney Road, Congela, Durban, 4001	Y
2	Samuels Service Centre- Forklifts, 420 Sydney Road, Congela, Durban, 4013	Y
3	Durban warehousing, 37 Franks Ave, Congela, Durban, 4001	Y
4	Chandling International, 410 Sydney Road, Congela, Durban, 4013	Y
5	Durban Panel Beaters, 404 Sydney Road, Congela, Durban, 4013	Y
6	Clark and Kent, Approved Auto Body Repair Centre	Y

7	Monitor Distributors, 336 Sydney Road, Congela, Durban, 4013	Y
8	Crusader Logistics, 333 Sydney Road, Congela, Durban, 4013	Y

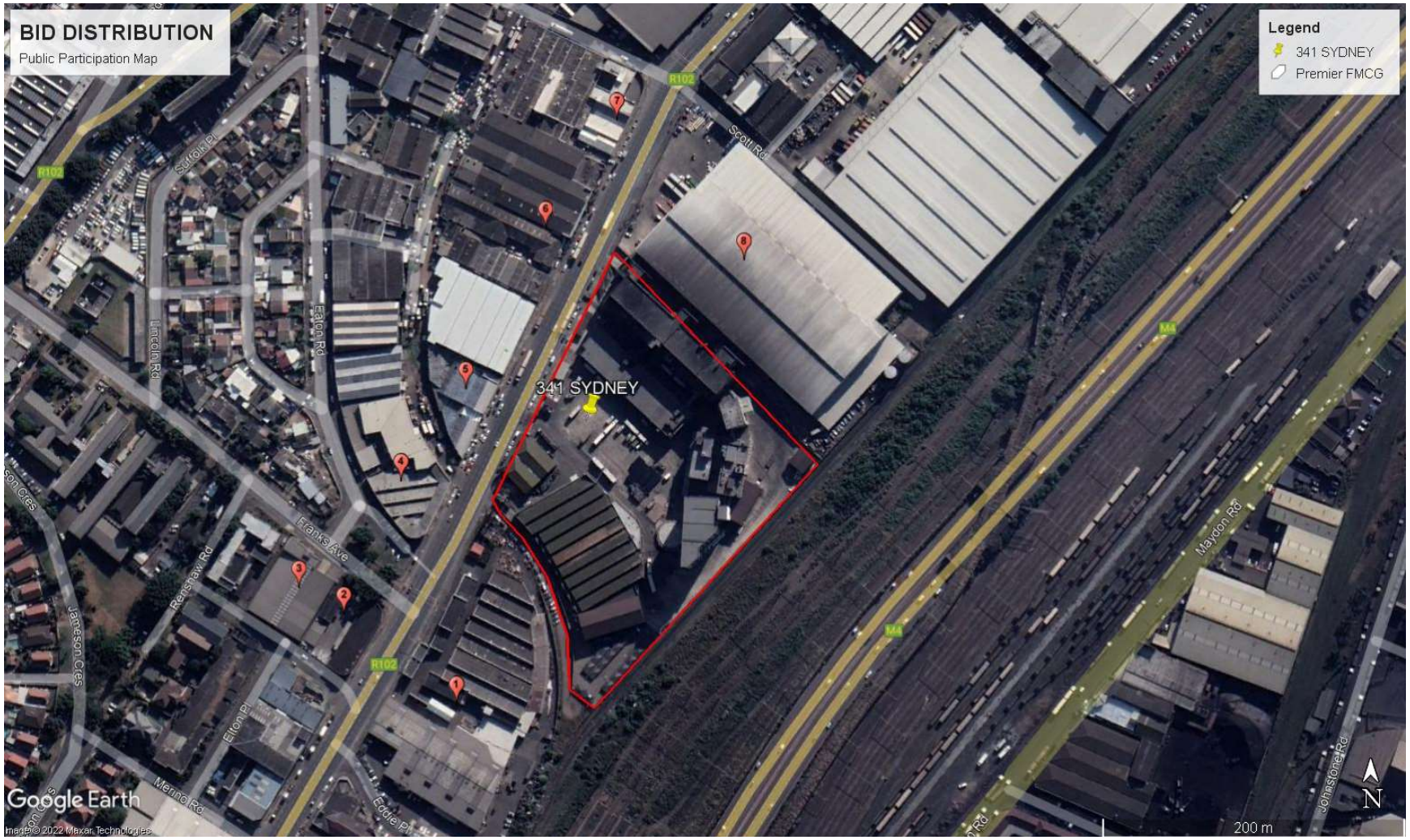

Figure 3: BID Distribution Map

9.2.5. Public Meeting

No public meetings were requested nor required following distribution of the BID, publication of the advertisement and erection of the site notice boards to date or before submission of the draft BAR.

9.3. Issues Raised by the I&APs

Copies of the Draft BAR were circulated to the following I&APs for review and comment:

- Department of Transport.
- Ezemvelo KZN Wildlife.
- eThekwini Municipality (all departments are given the opportunity to comment).
- KwaZulu-Natal AMAFA and Research Institute.
- Department of Corporative Governance and Traditional Affairs.
- Department of Water and Sanitation.
- Department of Economic Development, Tourism and Environmental Affairs.
- Ward Councillor, Ward 32
- Commission and Restitution of Land Rights
- Eskom
- Neighbouring properties

All registered I&APs were notified on the availability of the Draft BAR. All I&APs were reminded that in terms of the EIA Regulations (2017), GNR 326 43(2), all State Departments that administer a law relating to a matter affecting the environment, specific to the Application, must submit comments within 30 days to the Environmental Assessment Practitioner (1World Consultants (Pty) Ltd). Should no comment be received within the 30-day commenting period, it is to be assumed that the relevant State Department has no comment to provide.

Comments received on the BID and Draft BAR are summarized below.

9.3.1. Issues Raised Following Review of the BID:

1. No comments received to date.

9.3.2. Issues Raised Following Review of the DBAR:

1. No comments received to date.

10. ENVIRONMENTAL ATTRIBUTES (GEOGRAPHIC, PHYSICAL, BIOLOGICAL, SOCIAL, ECONOMIC, HERITAGE AND CULTURAL ASPECTS)

The eThekwini Municipality is located on the east coast of South Africa in the Province of KwaZulu-Natal. KZN is bordered by three district municipalities, namely, iLembe in the north, Ugu in the south and uMgungundlovu in the west. The eThekwini Municipal Area (EMA) spans an area of approximately 2 297 km^2, extending from Tongaat in the North to Umkomaas in the South and from the coastline in the East to Cato Ridge in the West and is characterized by coastal plains and steep and dissected topography (eThekwini Municipality SDF, 2016-2017).

The eThekwini Municipality (EM) is situated at the centre of the Maputaland-Pondoland-Albany Region, an area described as a "Biodiversity Hotspot", one of only 34 in the world. Over 50% of the world's plant species and 42% of all terrestrial vertebrate species are endemic to the 34 global biodiversity hotspots, despite these areas covering only 2.3% of Earth's land surface. The Maputaland-Pondoland-Albany biodiversity hotspot region is home to more than 7, 000 species of vascular plants, 25% of which are restricted (endemic) to this area (Conservation International, 2013).

The proposed site area is located at 341 Sydney Road, Congella, Durban and situated within a general industrial zone. The site is adjacent to the railway line which serves the Durban port and is approximately 1 km from the edge of the harbour, however, multiple streets and buildings separate the site from the water's edge. No significant biodiversity or natural water bodies such as rivers, streams or lakes are found within the immediate environment and area.

There will be no clearing of vegetation on site as the site is classified as brownfield and has been utilised for several decades. As a result, no Biodiversity or biodiversity specialist studies were required, however, a compliance statement was obtained as the site falls within an Estuarine Functional Zone. Since the site has already been disturbed, heritage resources of an archaeological nature are not likely to be impacted upon and a Heritage Impact Assessment was not required. The site is currently occupied and used for commercial purposes. The areas in the immediate vicinity of the proposed activity are used primarily for commercial purposes and include warehousing, automotive related stores, and clothing stores.

As a direct result of having larger quantities of diesel and paraffin being stored on site, Premier FMCG were able to expand their bread baking and flour milling divisions, to meet the growing demand. 633 permanent jobs were created (i.e., 428 employees in baking and 205 employees in milling), 70% of which went to people from previously disadvantaged backgrounds. Due to Premier FMCG's expanded workforce, the Durban bakery is now able to supply 360 000 loaves of bread per day. As both flour and bread are considered essential food items, it must be guaranteed that these items are supplied to consumers daily. By installing the fuel filling station on site Premier FMCG have significantly reduced their delivery times, ensuring that communities dependent on their product are adequately serviced.

11. SUMMARY OF SPECIALIST STUDY FINDINGS AND RECOMMENDATIONS

11.1. Estuarine Functional Zone Compliance Statement

An Estuarine Functional Zone Compliance Statement was compiled by The Biodiversity Company in May 2022. EDTEA requested that a compliance statement be submitted, as the site falls within an Estuarine Functional Zone (EFZ). The information used in the compliance statement was desktop-based using the latest spatial databases and satellite imagery.

The approach was informed by the Environmental Impact Assessment Regulations. 2014 (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices 320 (20 March 2020) in terms of NEMA, dated 20 March and 30 October 2020: "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation" (Reporting Criteria).

11.1.1. Project Area

The site falls within the Durban Harbour Estuarine Functional Zone (Figure 4). The EFZ is defined as the area that not only outlines the estuary waterbody, but also the supporting physical and biological processes and habitats necessary for maintaining estuarine functioning and wellbeing.

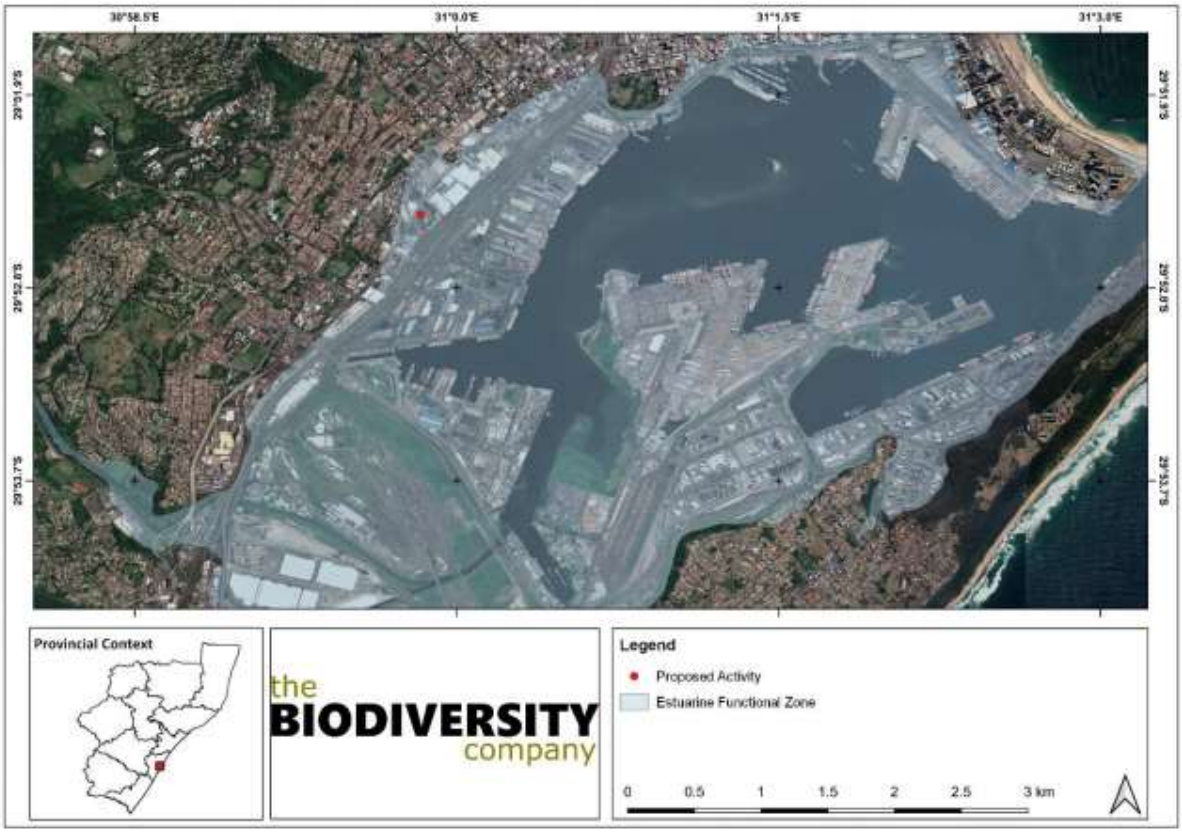

Figure 4: Map showing the location of the activity in relation to the Durban Harbour EFZ.

11.1.2. Ecological Condition

Ecosystem Threat Status

The Ecosystem Threat Status is an indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near- Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition. According to the National Biodiversity Assessment spatial dataset, the Durban Harbour EFZ is classified as CR (Figure 5). This denotes that the ecosystem has been severely or heavily modified from its natural state and therefore, has lost much of its natural structure and functioning, and species associated with the ecosystem may have been lost.

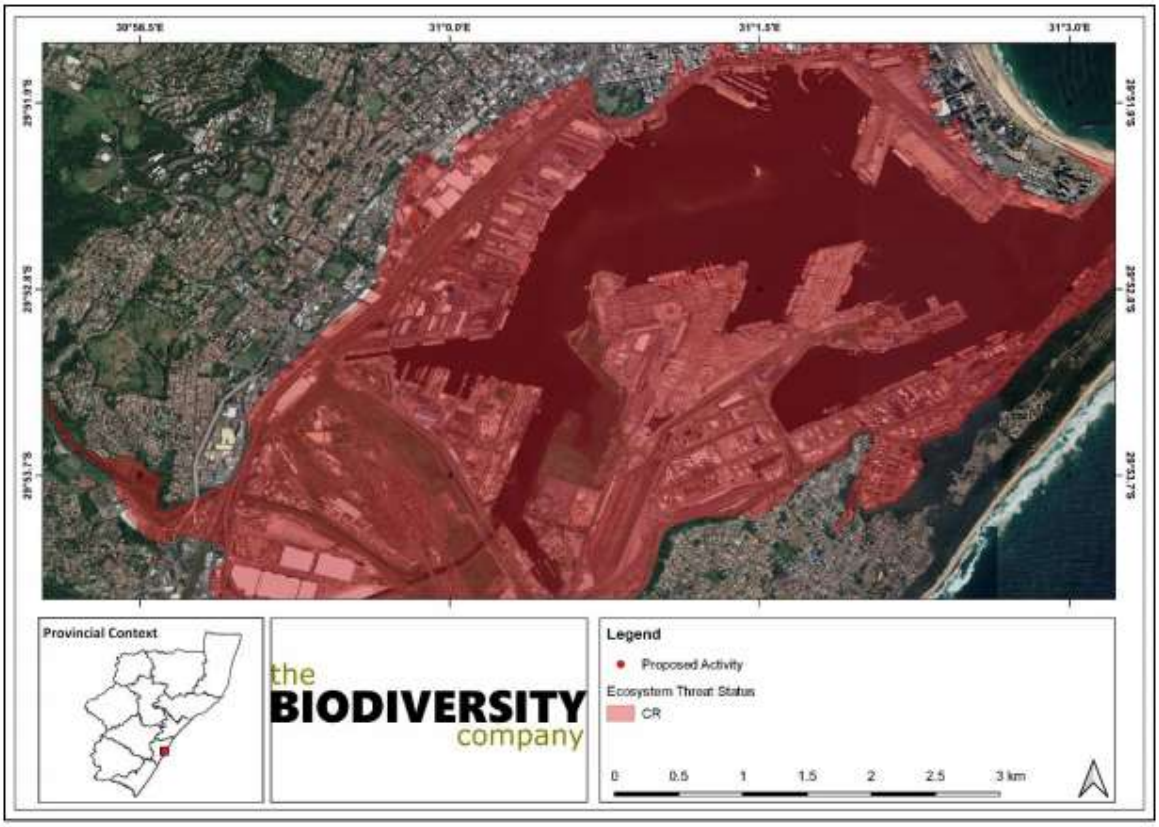

Figure 5: Map showing the ecosystem threat status associated with the activity.

Ecosystem Protection Level

Indicator of the extent to which ecosystems are adequately protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, PP or MP ecosystem types are collectively referred to as under-protected ecosystems. According to the National Biodiversity Assessment spatial dataset, the Durban Harbour EFZ is classified as NP (Figure 6).

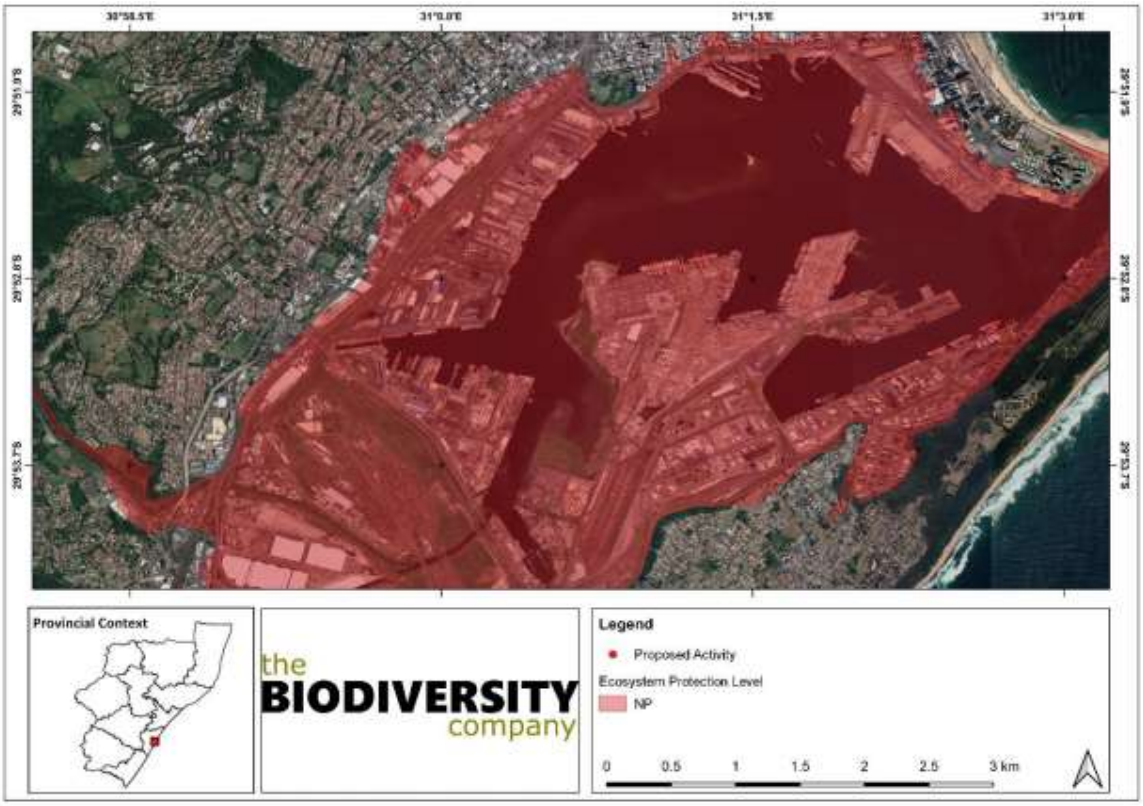

Figure 6: Map showing the ecosystem protection level associated with the activity.

Biodiversity Spatial Plan

The KwaZulu-Natal Biodiversity Spatial Plan (KZN BSP) provides a spatial representation of land and coastal marine area required to ensure the persistence and conservation of biodiversity within KZN. The Plan has been produced as a tool for guiding protected area expansion priority areas, identification of stewardship sites and informing all other economic sector' strategic spatial planning processes with the intention of ensuring more sustainable development in KZN. These areas are reflected as:

1. Critical Biodiversity Areas (CBAs) – CBA: Irreplaceable - Areas considered critical for meeting biodiversity targets and thresholds, and which are required to ensure the persistence of viable populations of species and the functionality of ecosystems. CBA: Optimal – Areas which represent the best localities out of a potentially larger selection of available planning units that are optimally located to meet both the conservation target but also other criteria.

2. Ecological Support Areas (ESAs) - Areas are required to support and sustain the ecological functioning of Critical Biodiversity Areas (CBAs). For terrestrial and aquatic environments, these areas are functional but are not necessarily pristine natural areas. They are however required to ensure the persistence and maintenance of biodiversity patterns and ecological processes within the CBAs, and which also contributes significantly to the maintenance of Ecological Infrastructure.

3. Landscape Corridors – Macro-ecological corridors that were developed to facilitate ecological processes. Linkages for assemblages of species, specifically the matrix species along biogeographic features or across an altitudinal gradient.

According to the spatial datasets, the activity does not overlap any BSP spatial feature (Figure 7). However, there are Irreplaceable Critical Biodiversity Areas (CBAs) within the surrounding landscape.

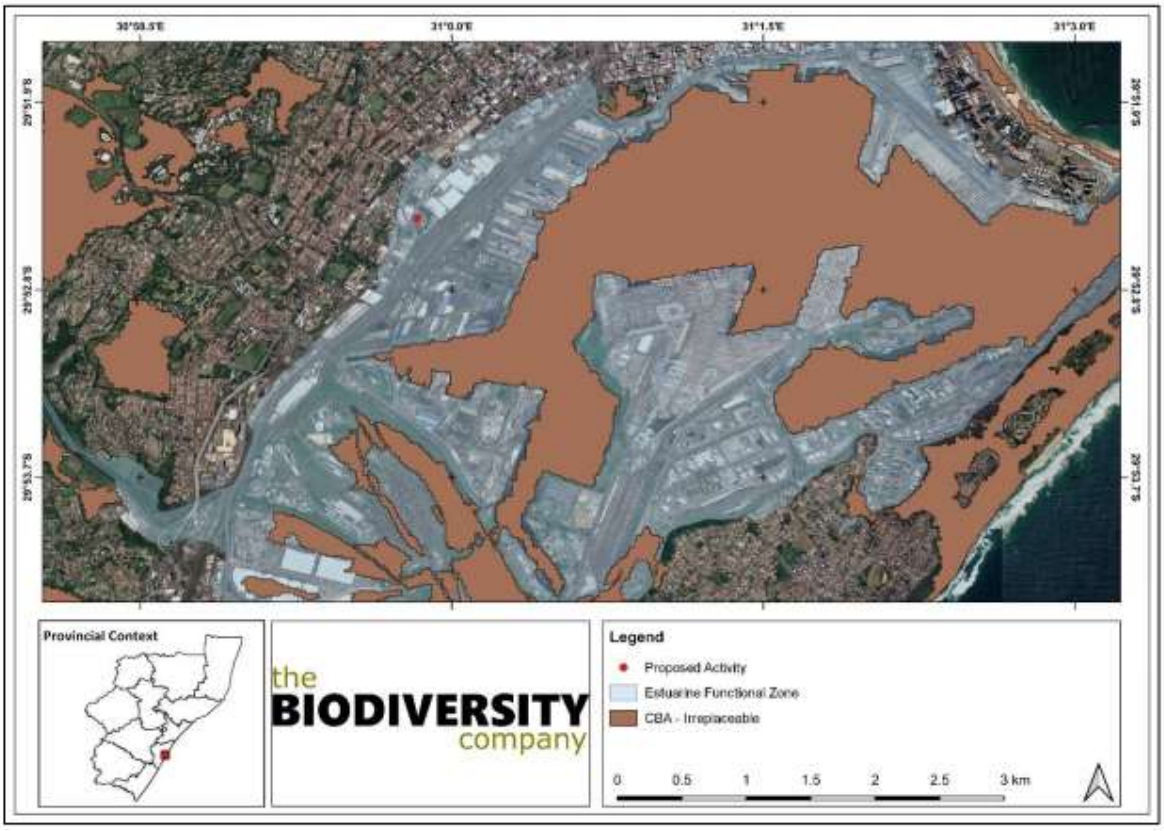

Figure 7: Map showing the location of Biodiversity Spatial Plan features in relation to the activity.

Landcover Context

Based on the National Landcover dataset (DFFE, 2020), the activity is located within an area that is dominated by commercial and industrial land-use (Figure 8).

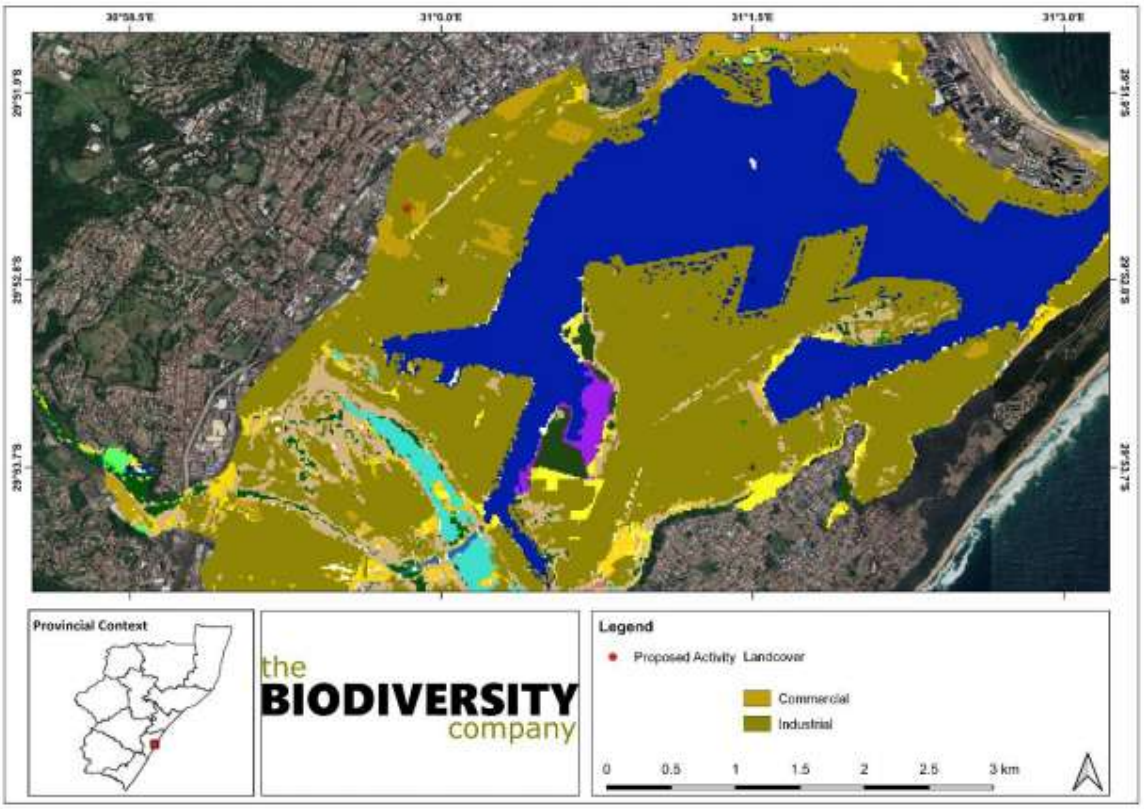

Figure 8: Map showing the landcover types in relation to the activity.

11.1.3. Conclusion

Although the activity is located within an EFZ, a region that is generally regarded as important for maintaining estuarine functioning and wellbeing, the landscape within which it is located has been transformed due to various anthropogenic activities and is an existing industrial and commercial area. In addition, considering the type of development, the activity is unlikely to impact the proximal CBAs. Moreover, the activity is located more than 500 m from the waterbody perimeter. Nevertheless, it is imperative that the storage tanks be inspected as per the Occupational Health and Safety Management Plan for the site and bunds placed around the storage facility. A Hazardous Chemical Spill Contingency Plan must be compiled for the development.

Impact Statement

An impact statement is required as per the NEMA regulations with regards to the activity. Based on the findings of the specialist, the PAOI comprises of secondary vegetation and possesses limited biodiversity value. In consideration of the ecological information provided within this statement and that the activity is necessary for functioning of the other project components that have already been authorised, it is the opinion of the specialist that the activity may proceed.

11.2. Major Hazard Installation (MHI)

Premier FMCG commissioned Nature & Business Alliance Africa (Pty) Ltd with conducting a quantitative assessment of the Major Hazard Installation (MHI) risks associated with its new bulk diesel and paraffin storage tanks at its bakery and wheat mill situated in Sydney Road, Durban. The aim of the risk assessment is to comply with the MHI Regulations as stated in the Occupational Health and Safety Regulations. The outcome of this risk assessment is to determine how an incident would pose a threat to the employees and to the public. The risk assessment will guide the facility on how to plan for an emergency situation. The complete MHI Risk Assessment Report may be reviewed under Appendix E.

The following structures were installed or are temporarily present on the site and are considered hazardous installations.

Table 10: Hazardous installations identified within the site.

T1	Name	UN No CAS No	SANS 10228 Class	Inventory	Bund surface area, m2	Throughput	Release quantity
1	Diesel storage tank	1202 68334-30-5	3	28 750 litres	No bund	30 000 litres every two weeks	28 750 litres
2	Diesel road tanker	1202 68334-30-5	3	30 000 litres	No bund	30 000 litres every two weeks	30 000 litres
3	Paraffin storage tank	1223 8008-20-6	3	64 000 litres	No bund	30 000 litres per week	64 000 litres
4	Paraffin road tanker	1223 8008-20-6	3	30 000 litres	No bund	30 000 litres per week	30 000 litres
5	Wheat and flour dust	-	-	Silos	-	-	10kg airborne dust

A total of 18 hazard scenarios were identified and analysed, based on the 5 MHI's mentioned above. The triggers of fires, explosions **and release of** toxic gases were evaluated. It was determined that for both the hazardous materials on site i.e., Diesel and Paraffin, pool fires are characteristic of these substances, while an over pressured wheat and flour silos could result in a dust explosion. The road tankers are considered temporary MHI's while they are on site.

The likely causes and frequency of failure for each installation type is listed in Section 6 of the MHI Report as attached in Appendix E.

Risk Assessment

According to the Occupational Health and Safety Act (Act 85 of 1993), a 'major incident' is defined as "an occurrence of catastrophic proportions, resulting from the use of plant or machinery, or from activities at a workplace. It is impossible to put a specific value to 'catastrophic' because it will always differ from person to person and from place to place. However, when the outcome of a risk assessment indicates that there is a possibility that the public will be involved in an incident, then the incident can be seen as catastrophic."

The cumulative individual safety risks for the site have been calculated as 0.0027 deaths / person / year for both employees and the public and is classified as tolerable and is shown in the individual risk transect below.

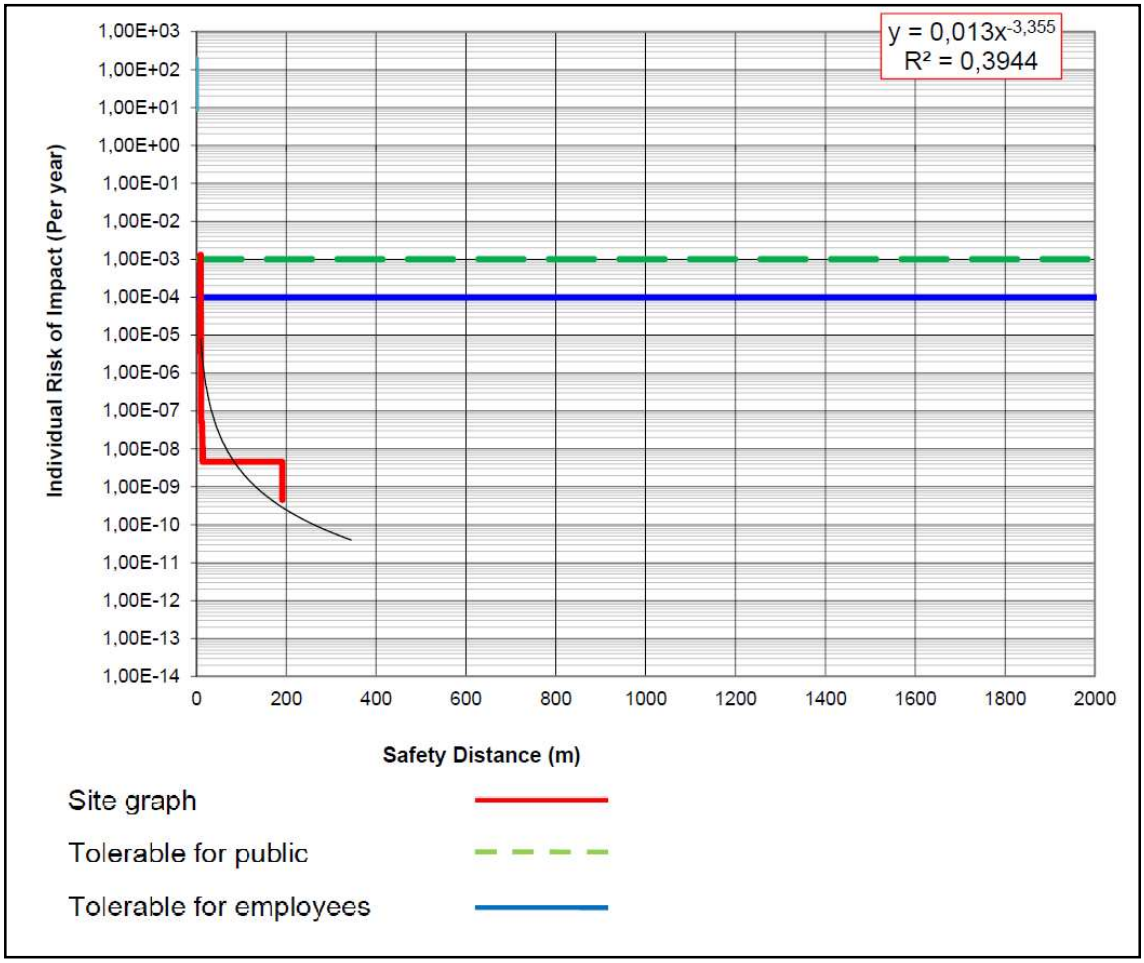

Figure 9: Individual Risk Transect

According to the Societal Risks - Frequency vs Number of impacts curve generated and shown below, Vapor Cloud Explosions (VCE) associated with the storage and road LPG tankers, considered the first and second priorities respectively, are classified to be as low as reasonably practicable (ALARP)

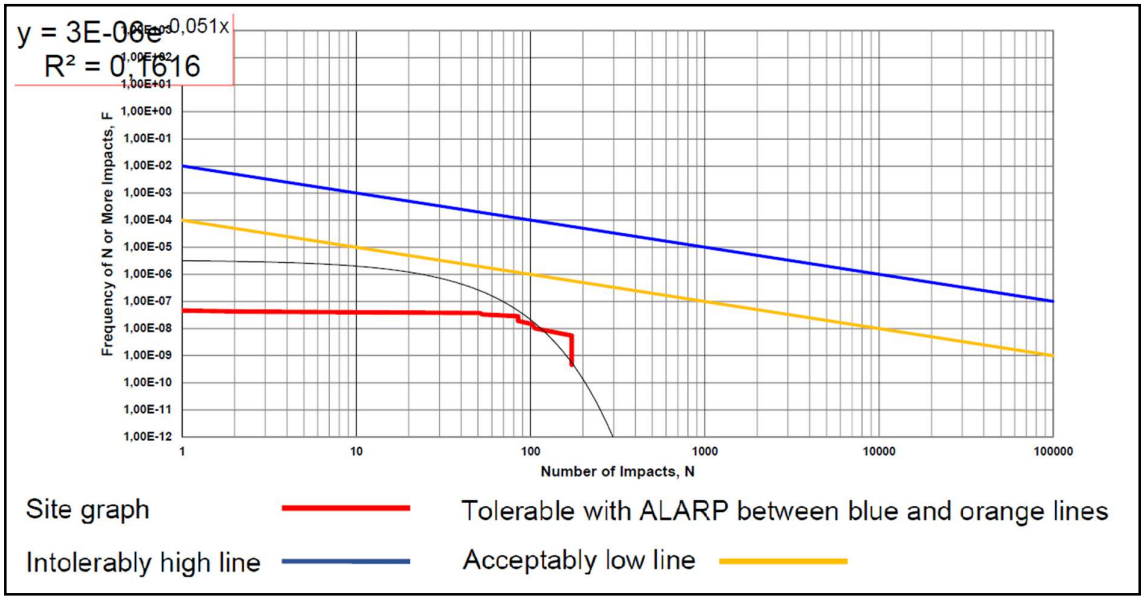

Figure 10: FN Curve for societal risk

The facility is classified as a major hazard installation because a major incident at the site will have an effect on members of the public outside the boundaries of the premises. The site is surrounded by commercial, and industrial developments. These developments will be affected by an unbunded pool fire at the site, should one occur. The high-density residential area 370 meters from the site would not be impacted in case of a major pool fire at the site. Manufacturing, commercial and retail units around the site would likely be impacted in case of a major incident on the paraffin or diesel storage tanks.

Maximum extent of the 1% consequence-based lethality effect zone from major hazards show that the probit value for thermal radiation exposure from a pool fire confirms that 1% fatalities could occur at a thermal radiation flux of 12.5 kW/m2. This thermal radiation flux corresponds with an impact distance of 191 meters.

The probit[1] value for overpressure exposure from a dust cloud explosion confirms that 1% fatalities could occur at an overpressure of 2 psi[2] at a safe separation distance of 22 meters as shown below.

[1] Probit: a unit of probability based on deviation from the mean of a standard distribution

[2] Psi: Pounds per square inch (PSI) is a measurement of pressure in the Imperial system of measurement

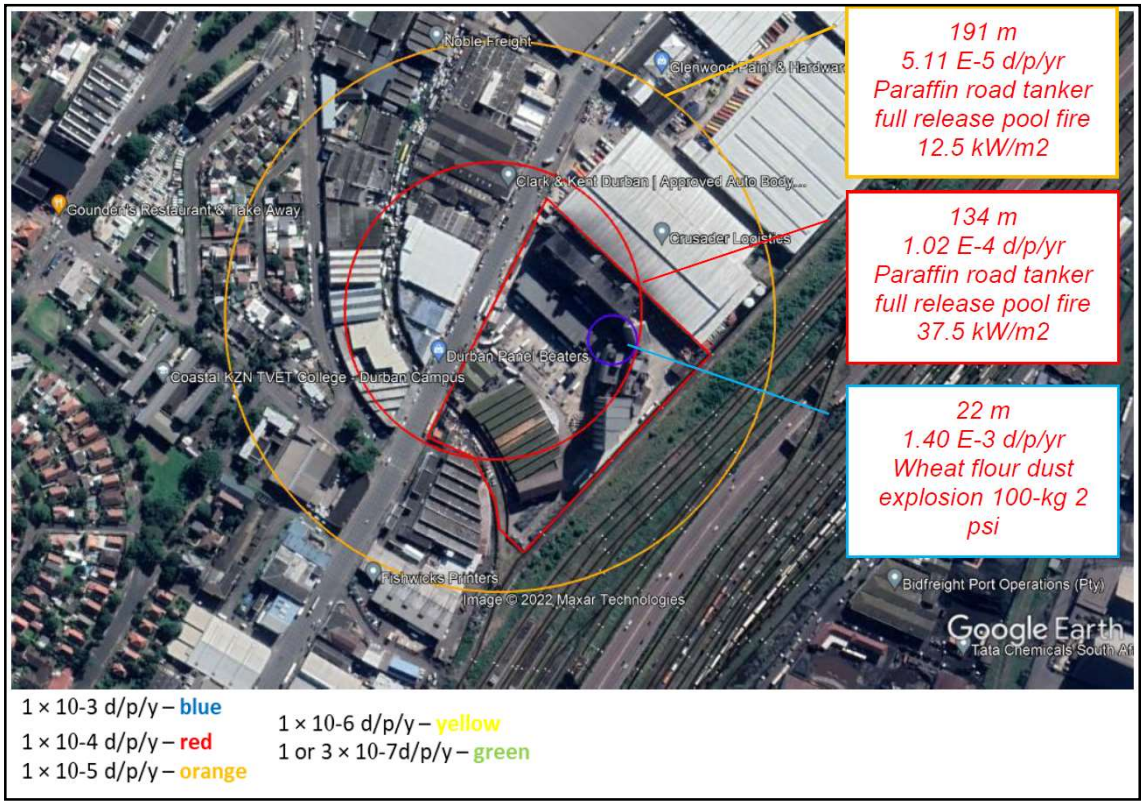

Figure 11: Individual Risk Contours

The nature of the work conducted on the site poses potential biophysical and socio-economic environmental risks. These include:

- Pollution of water in case of a paraffin or diesel leak.
- Soil and water pollution in case of a petrol or diesel spillage.
- Water effluent from the fire-fighting system may contain oils and grease that will end up in the stormwater run-off system and will pollute soil and surface water systems.
- Noise levels at the site may be disturbing to neighbouring businesses.
- A fire on site may spread to adjacent sites and destroy indigenous vegetation.

Recommendations

The observations made on site showed that the spaces underneath the filler coupling was almost full of diesel and would shortly start to leak outside through the air vent. The leaked diesel posed a serious risk of fire, right under the pump motor. It confirms that the storage tanks do not have bunding that can contain 110% of the stored capacity, as specified in SANS 10130. The following recommendations were made by the specialist:

a) An impermeable common bund wall must be constructed around the paraffin and diesel storage tanks. The capacity of the bund must be at least 70 400 liters, based on the capacity of the paraffin tank.
b) The site emergency plan must be updated at least annually in collaboration with the emergency services of the local municipality. The current Emergency Preparedness and Planning Procedure is attached to **Appendix C.**
c) The emergency plan must be updated when personnel changes or contact details occurs, in accordance with the guidelines given in this report.
d) Operating procedures for the site must be kept up to date to include preventative measures against the uncontrolled release of the following hazardous substances:
    - Paraffin.
    - Diesel.

- Wheat and flour dust.

e) The paraffin and diesel delivery road tankers must not reverse on site unless a watchman is available all the time.
f) The paraffin and diesel road tankers must be inspected when it comes onto the site, for possible overheated tyres, smell of heated rubber, product leaks, overheated clutch or other defects that can place the site at risk of fire.
g) Customer and bread delivery vehicle parking bays must be located in an area where public vehicles will not cause obstruction to emergency vehicles.

Development around the site will change continuously as new opportunities for land use arise. These future developments may change the population densities around the site which may affect the risk values calculated in the MHI report.

Organisational requirements include:

- A site layout plan with a bund must be compiled for approval by the Fire Department of City of Durban.
- The national Chief Inspector of the Department of Employment and Labour must be notified about the MHI status of the site.
- The provincial Chief Inspector of the Department of Employment and Labour must be notified about the MHI status of the site.
- The local Fire Department must be notified about the MHI status of the site.
- The outcome of the risk assessment must be brought to the attention of all the employees at the site.
- A Maintenance Plan must be compiled and kept up to date for all the hazardous equipment used on the facility. The Plan must contain at least the following:
  - ✓ List of all equipment and facilities on the facility.
  - ✓ Maintenance frequency.
  - ✓ Particulars of maintenance activities that must be performed on the listed equipment.
  - ✓ Responsible person.
- All hazardous equipment and facilities on the facility must be inspected on a regular basis by means of an Inspection Register. The Register must contain at least the following:
  - ✓ List of all equipment and facilities on the facility.
  - ✓ Equipment items that must be inspected.
  - ✓ Facilities that must be inspected.
  - ✓ Areas that must be inspected.
  - ✓ Inspection findings.
  - ✓ Responsible person who carried out the inspection.
- All authorised operators must be trained in the application of the operating procedures applicable to their jobs.
- All operating personnel at the facility must be made aware and kept aware of the dangers involving paraffin and diesel.
- The facility must remain under safety and security access control for 24 hours per day. If a security guard is employed, he/she must comply with the following requirements:
  - ✓ The guard must be trained in the potential major incidents that could occur at the site as well as the emergency procedure that must be followed.
  - ✓ The guard must be linked via SMS or cellular phone with a responsible standby person at the site.
  - ✓ The guard must be able to contact the local Fire Department immediately.
- The Emergency Management Plan and Emergency Evacuation Procedure must be tested at least once every 12 months by means of mock emergencies. The local emergency services of eThekwini must be invited to participate in these tests.
- Prior to any construction work on site, the local office of the Department of Employment and Labour must be notified in writing, in accordance with the Construction Regulations of the Department of Employment and Labour.
- No modifications may be made to the facilities on site unless an MHI risk assessment has been done beforehand.
- Train all staff in emergency preparedness for a paraffin or diesel leak, in collaboration with the local fire department.
- The following permanent warning sign which must be installed at the entrance to the site:

- The following advertisement must be published in a local community newspaper:

NOTIFICATION OF
MAJOR HAZARD INSTALLATION
PREMIER FMCG DURBAN

Notice is hereby given in accordance with Section 3(b) of the Major Hazard Installation Regulations R.692 of 30 July 2001 that an approved inspection authority conducted a major hazard installation risk assessment on the premises of Premier FMCG in Durban. The risk assessment report can be obtained in electronic format from the following address:

Nature & Business Alliance Africa (Pty) Ltd
Tel 0832254426
E-mail: alfonso@yebo.co.za

Interested and affected parties have 60 days from the date of publication of this advertisement to submit comments on the major hazard installation to the Head of the Emergency Services of eThekwini or to the Provincial Chief Inspector of the Department of Employment and Labour in KwaZulu-Natal.

12. IMPACT ASSESSMENT

Impact assessment takes into account the nature, scale and duration of positive and negative effects on the environment. All activities that are related to the operation of the development that could have some impact on the environment were identified. These impacts can be environmental, socio-economic or cultural in nature. Impacts are often not only confined within the direct scope of the activity and can accumulate as a network of indirect impacts on the surrounding area. Different impacts are associated with the operational phase of the activity.

The following potential impacts were identified for the operational phase:

- Stormwater Management
- Surface runoff
- Noise and disturbance

- Visual quality
- Traffic pressures and access
- Soil erosion
- Stormwater management
- Ground water pollution
- Waste management
- Noise disturbance
- Air quality
- Visual quality
- Public health and safety
- Heritage impacts

Socio-economic impacts

The project is likely to induce only site-specific environmental and/or social impacts. The activity is to be implemented within a relatively contained area.

12.1. Methodology

EIA Regulation and GNR 326 (2017) prescribes the requirements and aims of environmental impact assessments. In terms of the regulations, the following objectives are specified:

- Determine the nature, significance, consequence, extent, duration, and probability of impacts; and
- The degree to which these impacts:
  - Can be reversed,
  - May cause irreplaceable loss of resources, and
  - Can be avoided, managed, or mitigated

The impacts of any development including the construction and operational phases are identified, using the following definitions (Table 11):

Table 11: Impact Description

Term	Description
Direct Impact	*an impact that may have a notable effect on one or more of the aspects of the environment or may result in non-compliance with accepted environmental quality standards, thresholds or targets and is determined through rating the positive and negative effects of an impact on the environment based on criteria such as duration, magnitude, intensity and probability of occurrence.*
Cumulative impact	*In relation to an activity, means the past, present and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities.*

The potential impacts are listed and assessed for significance. Significance is assessed by scoring each impact based on four variables viz. probability, severity, duration, and spatial impact. The four variables, with their score criteria are detailed below in Table 12:

Table 12: Impact Significance

Score	Frequency/ Probability (FR) (Frequency or likelihood of activities impacting on the environment)	Severity (SV) (Degree of change to the baseline environment in terms of reversibility of impact; Sensitivity of receptor, duration of impact and threat to environment and health standards)	Duration (DR) (Length of time over which activities will cause change to the environment)	Spatial Scope (SS) (Geographic overage)
1	Almost Never / impossible	Insignificant / not harmful / totally reversible	One day to a month	Activity Specific
2	Very seldom / highly unlikely	Small / potentially harmful / reversible within 05 years	One month to a year	Site specific
3	Infrequent / seldom	Significant / slightly harmful / needs specific mitigation to reverse in a time span of between 05 and 15 years	One year to ten years	Area
4	Often / regular	Great / harmful / irreversible	Life of project	Regional
5	Daily / Highly regular	Disastrous / extremely harmful / totally irreversible and damaging	Post closure	National

The impacts are also scored taking any mitigation into consideration. The impacts are scored and scaled for significance in Table 13 as follows:

Table 13: Impact Rating and Description

Impact Rating	Score Range	Description
Negligible	3 or less	The impact is unimportant / indiscernible and hence insignificant – little or no mitigation adequately addresses the impact.
Low	4 to 9	The impact is of little importance since it is easily and adequately mitigated.
Medium	10 to 15	The impact is considerable and requires adequate mitigation to reduce potential damage to the environment.
High	16 or more	the impact is adverse and may never be adequately mitigated. The impact has a high probability of causing cumulative effects of other less significant impacts. It may be considered a fatal flaw of the project and requires intense consideration.

Lastly, impacts are further categorised based on the status of the impacts as either positive, negative, or neutral.

12.2. Impacts Identified

The impacts of the operational phase of the development are summarised in Tables 14-24 below.

Table 14:Groundwater and Soil Contamination

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	Groundwater and soil contamination due to operation of the filling station.	Direct, negative impact.	**Without**	4	3	4	3	14	**Medium**
			With	2	2	2	1	7	**Low**
			Mitigation measures: • Sewerage and stormwater infrastructure must be protected against contamination by grease and flammable substances utilised on the site. Grease, oil, and solid traps with suitable grease removal facilities must be installed. • Regular inspection programs to ensure that the tanks are in optimal condition and all related infrastructure is intact. • Signs must be posted at the pump instructing users not to top off fuel tanks and to notify an employee in the event of a spill. • Emergency shutoff switches must be plainly labelled. • A spill contingency plan must be available on site and staff must be appropriately trained to contain and dispose of contaminated materials. • A notification list, including the names and phone numbers of local management, fire and police and spill response contractors must be kept on site. • Routine spot cleaning of small spills at fuelling areas with dry methods. Dry methods include using rags or absorbents. • An adequate supply of absorbent materials must be readily available • The EMPr must be strictly adhered to.						

Table 15: Erosion and Stormwater Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Stormwater management** Runoff will lead to pollution of stormwater	Cumulative, negative impact.	**Without**	4	3	4	2	13	**Medium**
			With	3	2	1	1	7	**Low**
			Mitigation measures: • Stormwater from all roof and paved areas will be piped from gutters through downpipes and ground pipes into the stormwater system. Thereafter, discharged into the attenuation tank before entering the municipal system. • Clean storm water must be kept away from areas where it could be contaminated and must be directed to a storm water drainage system. • The storm water drainage system must be maintained and not contaminated by other waste sources.						

Table 16: Traffic Pressures and Access Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Increased Traffic Frequency on Road and Site Infrastructure:** - Potential accidents on access roads. - Potential accidents on site.	Cumulative, slightly negative impact.	**Without**	3	2	3	3	11	**Medium**
			With	2	1	2	2	7	**Low**
			Mitigation measures: • All speed limits and other traffic regulations must be adhered to. • Vehicles must park on demarcated site only. • The paraffin and diesel delivery road tankers must not reverse on site unless a watchman is available all the time. • The paraffin and diesel road tankers must be inspected when it comes onto the site, for possible overheated tyres, smell of heated rubber, product leaks, overheated clutch or other defects that can place the site at risk of fire. • Customer and bread delivery vehicle parking bays must be located in an area where public vehicles will not cause obstruction to emergency vehicles.						

Table 17: Air Quality Impacts (i.e., dust emission)

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operation	**Air quality from fuel**	Cumulative, negative impact.	**Without**	4	3	4	3	14	**Medium**
			With	2	2	2	2	8	**Low**
			Mitigation measures: • The impact of vent gases from vent pipes and the interceptor chamber is minimised through positioning of the vent pipes at a point remote form all buildings and neighbouring property boundaries.						

Table 18: Resource Utilisation Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Resource use during operational** Potential wastage of valuable resources (i.e., diesel, paraffin, and water) due to inefficient or redundant use.	Cumulative, slightly negative impact.	**Without**	5	3	4	2	14	**Medium**
			With	2	1	1	1	5	**Low**
			Mitigation measures: • Regular maintenance and inspection of equipment, such as hose pipes, to prevent leaks. • Regular site inspection by supervisors. • Proper environmental training and awareness. • Monitoring of resource consumption. • Implementation of technologies which can reduce resource consumption. • Contaminated water must be efficiently treated and re-used where possible. • Clean storm water must be kept away from areas where it could be contaminated and must be directed to the storm water drainage system. • All chemical storage areas must be situated on impermeable concrete floors with bunding capable of containing 100% of any spillage. • Leaking taps and hose pipes are to be repaired immediately. • Running water taps and hosepipes are not to be left unattended. • A Maintenance Plan must be compiled and kept up to date for all the hazardous equipment used on the facility. The Plan must contain at least the following:						

			- List of all equipment and facilities on the facility. - Maintenance frequency. - Particulars of maintenance activities that must be performed on the listed equipment. - Responsible person. • All hazardous equipment and facilities on the facility must be inspected on a regular basis by means of an Inspection Register. The Register must contain at least the following: - List of all equipment and facilities on the facility. - Equipment items that must be inspected. - Facilities that must be inspected. - Areas that must be inspected. - Inspection findings. - Responsible person who carried out the inspection.

Table 19: Waste Management Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Generation of general and domestic waste** Potential pollution of soil, surface water and/or groundwater by waste generated onsite.	Direct, negative impact.	**Without**	4	3	4	2	13	**Medium**
			With	2	1	1	1	5	**Low**
			Mitigation measures: • The Service Manager must ensure that waste containers are provided for the collection of general waste at various points on the premises. • Installation of sufficient waste bins and skips where necessary. • All containers shall be kept in a clean and hygienic manner. • Storage containers shall be stored in a manner that prevents the harbouring of pests. • Training of staff in proper hygiene.						
Operational	**Accidental spillage of hazardous chemicals or**	Direct, negative impact.	**Without**	4	3	4	3	14	**Medium**
			With	2	2	1	2	7	**Low**
			Mitigation measures: • Proper storage of chemicals in a lockable, well-ventilated building. • Storage areas for hazardous chemicals are to comply with standard fire safety regulations.						

	materials, such as fuel and chlorine Potential pollution of soil, surface water and/ or groundwater by waste generated onsite.		• Safety signage including "No Smoking", "No Naked Lights" and "Danger", and product identification signs, are to be clearly displayed in areas housing chemicals. • Adequate fire-fighting equipment shall be available close at hand and no smoking is permitted within the vicinity of storage areas. • Chemicals are to be properly labelled and handled in a safety conscious manner. • Bunded walls to retain possible spillages. • The removal of only the daily-required amount of chemicals to be used. • If refuelling on site or from drums, the ground must be protected, and proper dispensing equipment is to be used i.e., hand pumps and funnels. Drums may not be tipped to dispense fuel. • Use of drip trays during filling of machinery or equipment. Drip trays must be emptied into secondary containers on a regular basis. • Spill kits must be readily available.

Table 20: Noise Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Increase in ambient noise level** as a result of operating machinery and vehicles used during operation	Direct, slightly negative impact.	**Without**	4	3	4	2	13	**Medium**
			With	2	2	1	1	6	**Low**
			Mitigation measures: • Ensure that machinery on site is in proper working condition, fitted with the necessary silencing equipment. • Make sure that the workers on site stick to the prescribed working hours. • Keep equipment in good repair and attend to lose or rattling covers, worn bearings and broken equipment.						

Table 21: Visual Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Visual Impacts**		**Without**	4	2	1	2	9	**Low**

	An untidy site is visually unappealing. There are not many, if any, sensitive receptors close by for visual impact to be considered high significance.	Direct, neutral impact.	**With**	2	1	1	1	5	**Low**
			Mitigation measures: • Cleaning staff must ensure that the site is well maintained and neat. • Regular Inspections of the site by supervisors are required • Workers must practice good housekeeping on a daily basis.						

Table 22: Health and Safety Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	Employees, surrounding land users and occupiers may be affected by the operation of the filling station and storage tanks due to: - noise impacts incurred during deliveries, as well as the operation of the fuel filling station. - pool fires that may arise due to the flammable liquids being stored and used on site.	Cumulative, negative impact.	**Without**	4	3	3	3	13	**Medium**
			With	2	2	2	2	8	**Low**

			Mitigation Measures:
			• Relevant operation staff must receive training on the correct operation of the storage tanks and filling station, as well as maintenance and repair procedures when leaks are detected, in collaboration with the local fire department.
			• All authorised operators must be trained in the application of the operating procedures applicable to their jobs.
			• All operating personnel at the facility must be made aware and kept aware of the dangers involving paraffin and diesel.
			• Operating procedures for the site must be kept up to date to include preventative measures against the uncontrolled release of the following hazardous substances:
			  ○ Paraffin.
			  ○ Diesel.
			  ○ Wheat and flour dust.
			• An emergency response plan must be available on site and employees must be familiar with the plan. Premier FMCG's Emergency Preparedness and Planning Procedure is attached to **Appendix C.**
			• The site emergency plan must be updated at least annually in collaboration with the emergency services of the local municipality.						

			• The emergency plan must be updated when personnel changes or contact details occurs, in accordance with the guidelines given in the MHI report. • The correct PPE should be used on the site. • The national and provincial Chief Inspectors of the Department of Employment and Labour must be notified about the MHI status of the site. • The local Fire Department must be notified about the MHI status of the site. • The Emergency Management Plan and Emergency Evacuation Procedure must be tested at least once every 12 months by means of mock emergencies. The local emergency services of eThekwini must be invited to participate in these tests. • Prior to any construction work on site, the local office of the Department of Employment and Labour must be notified in writing, in accordance with the Construction Regulations of the Department of Employment and Labour. • Appropriate Health and Safety signage must be placed on and around the tanks. • Fire extinguishers and sandbags must be readily available on site and easily accessible. • Firefighting equipment must comply with SANS 1151 (Portable rechargeable fire extinguishers- halogenated hydrocarbon type extinguishers) and be inspected regularly. • No smoking may be permitted on site. • No cell phones may be used during fuel dispensing. • Overfill and spillages during tanker refuelling and fuel dispensing should be prevented by the installation of automatic cut off devices. • Tank delivery drivers must be present during delivery of fuel with the emergency cut off switch and a fire extinguisher. • A closed coupling must be used when fuel is being transferred from the bulk delivery vehicle to the storage tanks to prevent fugitive emissions. • A permanent warning sign must be installed at the entrance to the site highlighting that the site is a Major Hazard Installation. • An advertisement must be published in a local community newspaper indicating to all Interested and Affected parties that the site is classified as a Major Hazard Installation.

Table 23: Socio-Economic Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational			**Without**	4	2	4	2	12	**Medium**

	Additional employment opportunities	Cumulative, positive impact.	**With**	2	1	1	1	5	**Low**
			Mitigation measures: • Increased opportunities during the operation phase of the fuel station and storage tanks. All recruitment must be in-line with Employment Equity Policy. • The policy will also promote the employment of women to ensure that gender equality is attained as per the Employment Equity Act No 55 of 1998. • Where possible, priority must be given to job seekers from the local area. • The operator must build the capacity of employees through development plans, technical, health and safety training and provide them with relevant training certificates.						
Operational	**Crime:** Theft and security impact	Cumulative, negative impact.	**Without**	4	3	3	2	11	**Medium**
			With	2	2	2	2	8	**Low**
			Mitigation Measures: • The facility must remain under safety and security access control for 24 hours per day. If a security guard is employed, he/she must comply with the following requirements: - The guard must be trained in the potential major incidents that could occur at the site as well as the emergency procedure that must be followed. - The guard must be linked via SMS or cellular phone with a responsible standby person at the site. - The guard must be able to contact the local Fire Department immediately. • A security fence must be erected around the property boundary to prevent the possibility of theft. • An emergency response plan must be developed and adhered to.						

Table 24: Fuel Leakage Impacts

Phase	Potential Impact	Impact Type	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance
Operational	**Catastrophic rupture of vessel of diesel truck** - caused by		**Without**	5	5	2	2	14	**Medium**
			With	3	3	1	1	8	**Low**

<table>
<tr><td></td><td>accident damage, actions by unauthorised personnel, reversing of tanker, hot work, vapour release and static electricity: may cause fuel spill and fires.</td><td>Direct, negative impact.</td><td colspan="7">Mitigation measures:
• Deliveries to be received in off-peak time.
• Barriers to be installed to prevent accidental collision with trucks turning into the neighbour's property.
• Speed calm devices to be installed at the entrance and exit of the site.
• Drainage of tanker fill points to a retention system.
• Overfill protection on tanks to prevent spills.
• Stock management system to be implemented to ensure that correct amount of fuel is ordered.
• Driver controlled delivery equipment.
• Adequate lighting to allow for visibility of the tank truck.
• Provision of firefighting equipment and absorbent material.
• Vent pipe to be located in a safe area.
• Surface must be impervious to prevent fuel seepage into ground water system.
• Warning signs - when truck is being offloaded to make public aware of the hazard.
• Emergency response planning guide to be developed and tested.
• Training of staff.
• Provision of correct PPE.
• A maintenance program must be in place to check offloading hose pipes and tanker.
• Earthing system must be installed.
• Offloading hose pipes must be out of the way of moving vehicles when offloading.
• The driver or operator must always be present during offloading of diesel.</td></tr>
<tr><td rowspan="4">Operational</td><td rowspan="4">Storage tanks-
Catastrophic rupture of vessel/ piping, caused by ignition of vapour space, over pressure of vessel and poor engineering design.</td><td rowspan="4">Direct, negative impact.</td><td>Without</td><td>5</td><td>4</td><td>2</td><td>3</td><td>14</td><td>Medium</td></tr>
<tr><td>With</td><td>3</td><td>3</td><td>1</td><td>2</td><td>9</td><td>Low</td></tr>
<tr><td colspan="7">Mitigation measures:
• An impermeable common bund wall must be constructed around the paraffin and diesel storage tanks. The capacity of the bund must be at least 70 400 liters, based on the capacity of the paraffin tank.
• The design of the storage tanks must be done according to international standards.
• Vent valves must allow for release of pressure inside storage tanks.
• Earthing system must be installed.</td></tr>
</table>

			• Vent lines must be installed with flame arrestors. • Leak detection systems must be installed to detect underground pipe leaks. • A maintenance plan must be developed and followed. Records of maintenance done, and auditing of systems must be kept. • Training of staff.						
Operational	**Catastrophic rupture of vessel/ piping of paraffin/diesel pump-** caused by accident damage	Direct, negative impact.	**Without**	5	3	2	2	12	**Medium**
			With	2	2	1	1	6	**Low**
			Mitigation measures: • Install speed calming devices at entrance and exit of the site. • Install fuel pump protection barriers • Install emergency shut off valves to limit fuel loss in the event of an accident. • Earthing system must be installed. • International standards must be adhered for diesel hose design phase. • Maintenance programs must be developed to check hose pipes for regular wear and tear. • Operators must be trained to use hose pipes and defects must be reported immediately to the supervisor.						

12.3. Impact Assessment

Operational Phase:

Based on the outcome of the impact assessment matrix noted in Section 12, Tables 14-24 above and summarized in Table 25, the overall significance of the impacts with mitigation measures for the operational phase, is noted to be **LOW** i.e. The impact is reasonable but requires mitigation to reduce potential impacts to the environment.

The operational activities primarily involve the storage of both paraffin and diesel, including the fuel filling station, used for Premier's delivery truck fleet. Protection of water streams such as sewerage and stormwater infrastructure must be protected against contamination by grease and flammable substances utilised on the site.

Table 25: Summary of Operational Phase Impact Rating

Potential Impact	Mitigation	Frequency	Severity	Duration	Spatial Scope	Impact Score	Significance	Direct / cumulative impact
Groundwater and soil contamination due to operation of the filling station and convenience store.	Without	4	3	4	3	14	**Medium**	Direct, negative impact.
	With	2	2	2	1	7	**Low**	
Stormwater management	Without	4	3	4	2	13	**Medium**	Cumulative, negative impact
	With	3	2	1	1	7	**Low**	
Increased traffic frequency	Without	3	2	3	3	11	**Medium**	Cumulative, slightly negative impact
	With	2	1	2	2	7	**Low**	
Air quality from fuel	Without	4	3	4	3	14	**Medium**	Cumulative, negative impact
	With	2	2	2	2	8	**Low**	
Resource utilisation	Without	5	3	4	2	14	**Medium**	Cumulative, slightly negative impact
	With	2	1	1	1	5	**Low**	
Generation of general and domestic waste	Without	4	3	4	2	13	**Medium**	Direct, negative impact.
	With	2	1	1	1	5	**Low**	
Accidental spillage of hazardous chemicals or materials, such as fuel and chlorine	Without	4	3	4	3	14	**Medium**	Direct, negative impact.
	With	2	2	1	2	7	**Low**	
Noise	Without	4	3	4	2	13	**Medium**	Direct, slightly negative impact
	With	2	2	1	1	6	**Low**	

Visual	Without	4	2	1	2	9	**Low**	Direct, neutral impact
	With	2	1	1	1	5	**Low**	
Health and safety	Without	4	3	3	3	13	**Medium**	Cumulative, negative impact
	With	2	2	2	2	8	**Low**	
Socio economic: job creation	Without	4	2	4	2	12	**Medium**	Cumulative positive impact
	With	2	1	1	1	5	**Low**	
Socio economic: Crime	Without	4	3	3	2	11	**Medium**	Cumulative positive impact
	With	2	2	2	2	8	**Low**	
Fuel leakage: catastrophic rupture of vessel of petrol/ diesel truck	Without	5	5	2	2	14	**Medium**	Direct, negative impact.
	With	3	3	1	1	8	**Low**	
Fuel leakage: storage tanks	Without	5	4	2	3	14	**Medium**	Direct, negative impact.
	With	3	3	1	2	9	**Low**	
Fuel leakage: Catastrophic rupture of vessel/ piping of petrol/diesel pump	Without	5	3	2	2	12	**Medium**	Direct, negative impact.
	With	2	2	1	1	6	**Low**	

13. ENVIRONMENTAL IMPACT STATEMENT

An impact statement is required as per the NEMA regulations with regards to the development.

According to the **Biodiversity Compliance Statement**, although the site is located within an Estuarine Functional Zone (EFZ), a region that is generally considered important for the maintenance of estuarine wellbeing, the landscape within which the site is located is anthropogenic and already an existing industrial and commercial area. In addition, considering the type of development, the activity is unlikely to impact the proximal CBAs. The activity does not directly impede or intersect any waterbodies and is located more than 500m from the waterbody perimeter. Nevertheless, it is imperative that the storage tanks be inspected as per the Occupational Health and Safety Management Plan for the site and bunds placed around the storage facility. A Hazardous Chemical Spill Contingency Plan must be compiled for the development.

Based on the findings of the specialist, the project area of interest comprises of secondary vegetation and possesses limited biodiversity value. In consideration of the ecological information provided and that the activity is necessary for functioning of the other project components that have already been authorised, it is the opinion of the specialist that the activity may proceed.

According to the **MHI Study**, the site is classified as a Major Hazard Installation, whilst road tankers are considered Temporary Major Hazard Installations whilst located on site. The facility is classified as a MHI because a major incident at the site will influence members of the public outside the boundaries of the premises. The site is surrounded by commercial and industrial developments, which could be affected by an un-bunded pool fire at the site, however the residential are 370 metres away from the site would not be impacted by a major pool fire.

The individual safety risk for both employees and the public is classified as low, whilst the risk of Vapour Cloud Explosions caused by the aboveground storage tankers is classified as low as reasonably practicable. (ALARP).

Through this S24G Application, it has been concluded that the continued operation of the aboveground storage tanks and fuel filling station will not have any significant, adverse, or lasting impacts on the surrounding environment. During the operational phase, the site can be expected to have low negative impacts on various environmental attributes should proper mitigation measures be implemented. The activity can be expected to have a positive socio-economic impact, based on the employment opportunities that have been created (i.e., a daily workforce comprising of approximately 633 resources) . Further to the positive socio-economic impacts, Premier FMCG is able to consistently produce the necessary quantities of bread and flour, (both of which are considered essential food products), more feasibly, ensuring that the general public are still able to purchase these essential products.

Based on the outcomes of the risk assessments conducted as part of the BAR, coupled with the recommendations made by the specialists, the overall negative impact of the project is of Medium-Low significance, which can be reduced to Low significance through the implementation of simple yet effective mitigation measures.

During the operational phase of the project, the contractors must ensure that the EMPr is adhered to, to ensure that any negative impacts however minimal are not magnified.

14. CONDITIONS OF AUTHORISATION

In terms of Monitoring and Auditing, the following are recommended to ensure protection of the environment during construction:

- An ECO must monitor the facility on a monthly basis for the operational phase, for a period of 6 months following completion of construction to ensure that rehabilitation has been successful. Thereafter, annual audits must be conducted for the entire lifespan of the operation of the storage tanks and fuel filling station. Environmental audit reports must be compiled in compliance with Appendix 7 of the 2014 EIA Regulations as amended.
- An ECO must document the findings and submit an audit report to the Competent Authority.
- The Applicant is responsible for the implementation of the EMPr and protection of the environment for the duration of the operational period.

15. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The layout plans and designs of the storage tanks and fuel filling station have been completed and are included in this Draft BAR as Appendix C. However, these still require approval and Environmental Authorisation from the Competent Authority.

The following limitations and assumptions should be noted for the study:

All information provided by the applicant to the environmental team was correct and valid at the time it was provided.

15.1. Estuarine Functional Zone Compliance Statement

- The location of the above-ground tanks was provided by the client. Any changes to the location will affect the outcomes of the assessment.
- The statement was desktop-based using the latest spatial databases and satellite imagery.

15.2. Major Hazard Installation

Technical uncertainties pertinent to the MHI study as are follows:

- The meteorological conditions for Durban weather station have been taken as applicable to the site.
- Wind direction is highly variable, not limited to a specific vector coordination, and may change at any time.
- Population density was taken from the Statistics SA 2011 census and could have changed since then.

16. RECOMMENDATIONS OF THE EAP

The information contained in this report and the documentation attached hereto, in the view of the EAP, is sufficient for the Public Participation Process (PPP). Should the Competent Authority request additional studies to be conducted, this shall be conducted and obtained to assist the Competent Authority in making an informed decision.

The EMPr, which includes recommended conditions and mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application, is provided. Refer to Appendix F for a full Environmental Management Programme. The EMPr must be read in conjunction with the BAR.

17. TIMEFRAMES

An environmental authorisation that has no conclusion date is requested. Operation may continue throughout the validity of the environmental authorisation.

18. UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP

I. 1World Consultants (Pty) Ltd hereby confirms that the information provided in this Basic Assessment Report is correct at the time of the compilation and distribution for review. Input from specialists was utilised in the compilation of the Report.

II. 1World Consultants (Pty) Ltd confirms that all comments received from Stakeholder and I&APs have been included in this report. It is to be noted that in terms of the EIA Regulations (2017), GNR 326 43(2), all State Departments that administer a law relating to a matter affecting the environment, specific to the Application, must submit comments within 30 days to the EAP. Should no comment be received within the 30-day comment period, it will be assumed that the relevant State Department has no comment to provide.

III. All information from the specialist studies have been included in this Basic Assessment Report. Recommendations from the specialists have been included in the EMP.

IV. All information and comments received in response to this Basic Assessment Report will be summarized and responded to in a final version of the Report, which will be submitted to EDTEA for consideration in terms of issuing Environmental Authorisation.

For 1World Consultants (Pty) Ltd:

Adila Sheik Gafoor

B. Soc.Sci, IAIAsa, Reg. EAP (EAPASA)

SENIOR ENVIRONMENTAL ASSESSMENT PRACTITIONER

19. APPENDICES

The following appendices must be attached as appropriate:

Appendix	Description of Contents
A	Minutes of pre-application meeting DEA Screening Report
B	Company Profile Project Experience of EAP Declaration of the EAP Curricula Vitae of EAP Team Declaration of Specialist Curricula Vitae of Specialists
C	Site Layout Plan Designs of Diesel and Paraffin Storage Tanks Supplier Agreement Certificate of Compliance – aboveground storage tank design Certificate of Registration – Maximum quantity of flammable liquids Emergency Preparedness and Planning Procedure Fire Permit
D	I&AP Distribution List Background Information Document Newspaper Advertisement Site Notice Board Photograph of Notice Boards on Site Landowner Notification Letter and BID register
E	Estuarine Functional Zone Compliance Statement Major Hazard Installation Risk Assessment
F	Draft Environmental Management Programme

References:

Van Niekerk, L., Adams, J.B., Lamberth, S.J., MacKay, C.F., Taljaard, S., Turpie, J.K., Weerts S.P. & Raimondo, D.C. 2019 (eds). South African National Biodiversity Assessment 2018 Technical Report Volume 3: Estuarine Realm. CSIR report. South African National Biodiversity Institute, Pretoria