LESLIE CONVENIENCE CENTRE

APPLICATION TO RECTIFY THE UNLAWFUL COMMENCEMENT OR CONTINUATION OF LISTED ACTIVITIES IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO 107 OF 1998)

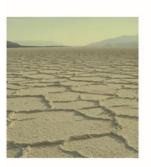
DATE AUGUST 2021





















ENVIRONMENTAL ASSESSMENT IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO 107 OF 1998)

BASIC ASSESSMENT REPORT

DATE AUGUST 2021

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List of Contents

DISC	LAIMER	5
ACRO	DNYMS	6
GLOS	SSARY OF TERMS	7
1		10
2	LOCATION OF PROJECT	10
3	PROPERTY DESCRIPTION	11
4	PROJECT DESCRIPTION	
5	ACTIVITIES EXISTING	
6	ACTIVITIES COMMENCED WITH	
7	ACTIVITIES PROPOSED	
8	SUMMARY OF EXISTING AND PROPOSED STORAGE CAPACITY ON SITE	
9	REGULATORY PROCESS	
10	PHYSICAL SIZE OF THE ACTIVITY	
11	SITE ACCESS	
12	LAND USES	
13	TOPOGRAPY	
14	GEOLOGY AND SOILS.	
15	ALTERNATIVES	
10	Description of Alternatives.	
2	No-Go Alternative	
16	DESCRIPTION OF RECEIVING ENVIRONMENT	19 10
	Property Description	
1	Activity Position	
2	Gradient of the Site	
3		
4	Location in Landscape	
5	Groundwater, Soil and Geological Stability of the Site	
6	Surface Water	
7	Agriculture	
8	Groundcover	
9	Land Use Character of Surrounding Area	
10		
11		
17	PUBLIC PARTICIPATION	
1	Public Participation Process	
2	Conclusion of Public Participation Programme	25
18	RESOURCE USE AND PROCESS DETAILS	
1	Waste, Effluent, Emission and Noise Management	
2	Water Use	
3	Energy Efficiency	
19	SPECIALIST INPUT	
1	Biodiversity Assessment	
2	Heritage	
20	IMPACT ASSESSMENT	
1	Issues raised by interested and affected parties	
2	Impacts that may result from all phases as well as proposed mitigation measures	
1	Planning and Design Phase	
2	Construction Phase	
3	Operational Phase	
4	Decommissioning and Closure Phase	
5	Environmental Impact Statement	
6	Impact Summary of the Proposal or Preferred Alternative	
21	SPATIAL DEVELOPMENT TOOLS	
1	National Priority areas	
2	Mpumalanga Biodiversity Sector Plan (2014)	
3	DEA Screening Tool	
4	Sensitivity mapping	
	, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,	



22	THE NEED AND DESIRABILITY OF THE PROPOSED DEVELOPMENT	45
23	RECOMMENDATION OF PRACTITIONER	45
24	ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	
	THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED	
26	CONCLUSION	

APPENDIX A: LOCATION MAP

- 1. Site Location topo
- 2. Site Location topo
- 3. Site Location Google Earth (close up)
- 4. Site Location kml
- 5. Site Location topo year 1965
- 6. Site Location topo year 1984
- 7. Site Location topo year 1995
- 8. Location Google Earth 2004

APPENDIX B: SITE PLAN(S)

- 1. Sensitivity Map Google Earth
- 2. Layout Plan Existing and Proposed
- 3. Layout Plan Activities commenced with

APPENDIX C: OWNER CONSENT

APPENDIX D: PHOTOGRAPHS

APPENDIX E: PUBLIC PARTICIPATION INFORMATION

- 1 Proof of placement of site notice
- 2 Proof of written notification
 - a. Background Information Document
 - b. Registration sheet
 - c. Notification letters
- 3 Proof of placement of newspaper advertisements
- 4 Communications to and from interested and affected parties
- 5 Comments and Response Report
- 6 Comments and Response Report Written comments received in the notification phase
- 7 Register of I&APs

APPENDIX F: SPECIALIST REPORTS

- 1. Biodiversity Assessment Terrestrial and Aquatic Ecology
- 2. Heritage Impact Assessment Exemption Request

APPENDIX G: EMPR

APPENDIX H: OTHER INFORMATION

- 1. Details and expertise of EAP and declaration of interest
- 2. Details and expertise of Specialists and declaration of interest
- 3. DEA Screening Tool



DISCLAIMER

The opinions expressed in this report have been based on the information supplied to Texture Environmental (Peopletexture Pty Ltd.) by Leslie Community Filling Station (Pty) Ltd. Texture Environmental has exercised all due care in reviewing the supplied information. The accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. Texture Environmental does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of Texture's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of the site investigation, about which Texture Environmental had no prior knowledge nor had the opportunity to evaluate.



ACRONYMS

BAR CBA CMA CR	Basic Assessment Report Critical Biodiversity Area Catchment Management Agencies Critically Endangered
DARDLEA	Department of Agriculture, Rural Development, Land & Environmental Affairs, Mpumalanga Provincial Government
DBAR DWS	Draft Basic Assessment Report Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
EN	Endangered
ESA	Ecological Support Area
FBAR	Final Basic Assessment Report
IDP	Integrated Development Plan
HGM	Hydrogeomorphic
HIA I&APs	Heritage Impact Assessment Interested and Affected Parties
IBA	Important Bird Areas
LT	Least Threatened
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMWA	National Environmental Management Waste Act, 2008 (Act No. 59 of 2008)
NEMAQA	National Environment Management: Air Quality Act (No.39 of 2004)
NFEPA	National fresh water ecosystem priority areas
NPAES	National protected areas expansion strategy
NWA	National Water Act (Act 36 of 1998)
PDA	Primary Drainage Area
PES	Present Ecological State
PPP	Public Participation Process
QDA	Quaternary Drainage Areas
QDS	Quarter Degree Square
REMC SAHRA	Recommended Ecological Management Class South African Heritage Resources Agency
SWSA	Strategic water source areas of South Africa
VU	Vulnerable
WMA	Water Management Areas
	5



GLOSSARY OF TERMS

Activity (Development) – an action either planned or existing that may result in environmental impacts through pollution or resource use.

Alternative – a possible course of action, in place of another, of achieving the same desired goal of the proposed project. Alternatives can refer to any of the following but are not limited to: site alternatives, site layout alternatives, design or technology alternatives, process alternatives or a no-go alternative. All reasonable alternatives must be rigorously explored and objectively evaluated.

Applicant – the project proponent or developer responsible for submitting an environmental application to the relevant environmental authority for environmental authorisation.

Biodiversity – the diversity of animals, plants and other organisms found within and between ecosystems, habitats, and the ecological complexes.

Construction – means the building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity but excludes any modification, alteration or expansion of such a facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint.

Cumulative Impacts – impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities to produce a greater impact or different impacts.

Direct impacts – impacts that are caused directly by the activity and generally occur at the same time and at the same place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally quantifiable.

Ecosystem – a dynamic system of plant, animal (including humans) and micro-organism communities and their non-living physical environment interacting as a functional unit. The basic structural unit of the biosphere, ecosystems are characterised by interdependent interaction between the component species and their physical surroundings. Each ecosystem occupies a space in which macro-scale conditions and interactions are relatively homogenous.

Environment – In terms of the National Environmental Management Act (NEMA) (Act No 107 of 1998) (as amended), "Environment" means the surroundings within which humans exist and that are made up of: a) the land, water and atmosphere of the earth;

b) micro-organisms, plants and animal life;

c) any part or combination of (i) of (ii) and the interrelationships among and between them; and

d) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Authorisation (EA) – an authorisation issued by the competent authority in respect of a listed activity, or an activity which takes place within a sensitive environment.

Environmental Assessment Practitioner – the individual responsible for planning, management and coordination of environmental impact assessments, strategic environmental assessments, environmental management programmes or any other appropriate environmental instrument introduced through the EIA Regulations.



Environmental Impact – a change to the environment (biophysical, social and/ or economic), whether adverse or beneficial, wholly or partially, resulting from an organisations, activities, products or services.

Environmental Impact Assessment (EIA) – the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made.

Environmental Issue – a concern raised by a stakeholder, interested or affected parties about an existing or perceived environmental impact of an activity.

Environmental Management - ensuring that environmental concerns are included in all stages of development, so that development is sustainable and does not exceed the carrying capacity of the environment.

Environmental Management Programme - A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life cycle of a project. The EMPr focuses on the construction phase, operation (maintenance) phase and decommissioning phase of the proposed project.

Expansion - means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.

Fatal Flaw – issue or conflict (real or perceived) that could result in developments being rejected or stopped.

General Waste – household water, construction rubble, garden waste and certain dry industrial and commercial waste which does not pose an immediate threat to man or the environment.

Hazardous Waste – waste that may cause ill health or increase mortality in humans, flora and fauna.

Indirect impacts – indirect or induced changes that may occur as a result of the activity. These types if impacts include all of the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.

Integrated Environmental Management – a philosophy that prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development and decision-making process. The IEM philosophy (and principles) is interpreted as applying to the planning, assessment, implementation and management of any proposal (project, plan, programme or policy) or activity – at local, national and international level - that has a potentially significant effect on the environment. Implementation of this philosophy relies on the selection and application of appropriate tools for a particular proposal or activity. These may include environmental assessment tools (such as strategic environmental assessment and risk assessment), environmental management tools (such as monitoring, auditing and reporting) and decision-making tools (such as multi-criteria decision support systems or advisory councils).

Mitigate – the implementation of practical measures designed to avoid, reduce or remedy adverse impacts or enhance beneficial impacts of an action.

No-Go Option – in this instance the proposed activity would not take place, and the resulting environmental effects from taking no action are compared with the effects of permitting the proposed activity to go forward.

Open Space – environmentally sensitive areas which are not suitable for development and consist of watercourses, buffers, floodplains, steep slopes, sensitive biodiversity and/or areas of cultural or heritage significance.



Registered Interested and Affected Party – an interested and affected party whose name is recorded in the register opened for that application in terms of regulation 42.

Rehabilitation – a measure aimed at reinstating an ecosystem to its original function and state (or as close as possible to its original function and state) following activities that have disrupted those functions.

Scoping – the process of determining the spatial and temporal boundaries (i.e. extent) and key issues to be addresses in an environmental assessment. The main purpose of scoping is to focus the environmental assessment on a manageable number of important questions. Scoping should also ensure that only significant issues and reasonable alternatives are examined.

Sensitive environment – any environment identified as being sensitive to the impacts of the development.

Significance – significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. magnitude, intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgements and science-based criteria (i.e. biophysical, social and economic).

Stakeholder engagement – the process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities.

Sustainable Development – development which meets the needs of current generations without hindering future generations from meeting their own needs.

Watercourse – means:

a) a river or spring;

b) a natural channel or depression in which water flows regularly or intermittently;

c) a wetland, lake or dam into which, or from which, water flows; and

d) any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998) and a reference to a watercourse includes, where relevant, its bed and banks.

Wetland – means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.



1 INTRODUCTION

Texture Environmental was appointed by Leslie Community Filling Station (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to undertake the required environmental assessment and associated stakeholder engagement process for the expansion of the Leslie Convenience Centre. This environmental assessment was done in terms of Section 24G of the National Environmental Management Act 107 of 1998 (NEMA), to recertify and undertake the listed activities in terms of Government Notice Regulation (GN R.) 327 of the Environmental Impact Assessment (EIA) Regulations of 04 December 2014, as amended. The EAP was appointed to facilitate the NEMA S24G rectification application for the unlawful commencement of this activity. The Department of Agriculture, Rural Development, Land & Environmental Affairs: Section Environmental Impact Management (DARDLEA), is the Competent Authority for this application.

2 LOCATION OF PROJECT

The subject property is located in Leandra on 36 Norda Street. Leandra is some 45 km east-south-east of Springs, comprising the former towns of Eendrag and Leslie. The site is immediately north of the dual carriageway of Norda Street (R29) and about 100m east of Wingate Street in the Town of Leandra, within the Govan Mbeki Local Municipality, Mpumalanga Province. (The project area is indicated on the Location Maps below.)

The GPS coordinates of the study site location is 26°22'04.70"S; 28°55'29.21"E. The Surveyor General number is T0IR03880000023900005. The project is on 4041.25 m² (0.404125 ha) of land.

The GPS coordinates of the main landmarks within the project area are as follows:

- Study Site: 26°22'04.70"S; 28°55'29.21"E.
- Leslie / Leandra: 26°22'5.17"S; 28°55'11.79"E.
- Quarter Degree Square (QDS): 2628BD.
- Quaternary Drainage Area (QDA): B20E.



Figure 1: Site location



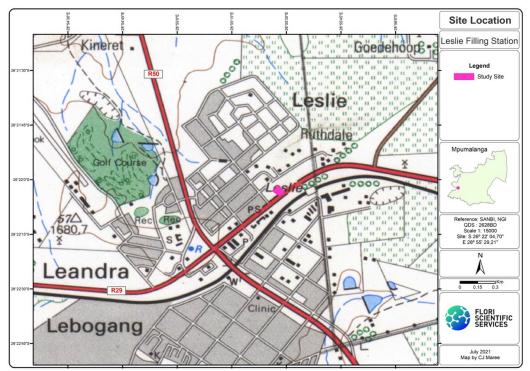


Figure 2: Site location (close-up)

3 PROPERTY DESCRIPTION

The property description is Erf 239, Portion 5 Leslie IR in the Govan Mbeki Local Municipality, Gert Sibande District Municipality in Mpumalanga province.



Figure 3: Study Site location (Google Earth)





Figure 4: Study site (Close Up)

4 PROJECT DESCRIPTION

Leslie Community Filling Station (Pty) Ltd., previously known as Leslie MBT Station (Pty) Ltd entered into a formal lease agreement with landowner, Leslie Sentrum CC, after the initial lease agreement expired by effluxion of time, on condition to upgrade the already existing filling station and in exchange get the right to operate the already existing fuel station as a going business. The existing filling station came into operation before March 1998 and had a combined capacity of 115 000 litres = 115m³ (cubic metres) of fuel. The new owner (Leslie Community Filling Station (Pty) Ltd) proposed to keep the capacity of the fuel storage facility to below the threshold of 80m³ and to use the existing footprint of the old facility.

The station was revamped and the old fuel tanks replaced by new tanks that comply to the latest technology and the South African National Standards (SANS) for the Petroleum Industry: SANS 10089-3:1999* SABS 089-3:1999. The South African National Standards (SANS/SABS) Part 3, applicable to the Petroleum Industry and in particular to the installation of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations, is applicable and was complied with.

The replacement of the tanks, fuel lines and containment slab were contracted to Unitrade 549 (Pty) Ltd trading as Sihlangene Construction. The revamp was halted, as a result of the Covid 19 Pandemic and in terms of the regulations relating to Covid 19 published in terms of the Disaster Management Act, at the end of March 2020 and only resumed in May 2020.

The scope of work was to install tanks below the threshold of 80m³. After the revamp was completed and in preparation to activate the filling station it came to the knowledge of Leslie Community Filling Station (Pty) Ltd



that the combined capacity of the underground fuel tanks exceeded the threshold capacity of $80m^3$ in that it is $83m^3$ made up by 2 x $30m^3$ and 1 x $23m^3$ tanks.

It now transpired that during the initial Covid 19 restrictions, imposed by the regulations relating to Covid 19 in terms of the Disaster Management Act, the availability of underground fuel tanks with a capacity below $20m^3$ were not available and the contractor was supplied with 2 x $30m^3$ and 1 x $23m^3$ underground fuel tanks by the supplier and same were installed.

This application is therefore for rectification of the unlawful expansion of the filling station. In addition, it is for authorisation of the expansion of the existing facilities for the storage of fuel and related uses. Leslie Community Filling Station (Pty) Ltd. plans to expand on the existing facilities and the existing storage tanks on site (2 x 30m³, and 1 x 23m³) by adding additional tanks (2 x 46m³) up to a combined fuel storage capacity of 175m³ over a phased period. The total combined storage capacity on site will thus not exceed 500m³.

5 ACTIVITIES EXISTING

As mentioned, the existing filling station came into operation before March 1998 and had a combined capacity of 115 000 litres = $115m^3$ (cubic metres) of fuel. Refer to the Location maps *Appendices A5 to A8* to show existing activity on the site in question. The new owner (Leslie Community Filling Station (Pty) Ltd) proposed to keep the capacity of the fuel storage facility to below the threshold of 80m³ and to use the existing footprint of the old facility. In 2020 the station was revamped and the old fuel tanks replaced by new tanks. The contractor was supplied with 2 x 30m³ and 1 x 23m³ underground fuel tanks by the supplier and same were installed. The existing 2 X 30m³ fuel tanks are therefore lawful and below the threshold, but the addition of the 1 x 23m³ caused the unlawful expansion above the threshold capacity of 80m³.

6 ACTIVITIES COMMENCED WITH

The applicant commenced with the expansion of the facilities for the storage of fuel, with a combined capacity of 80 cubic metres or more, without Environmental Authorisation. The applicant provided the below to serve as background as to the reasons why it was commenced without the appropriate authorisation:

The scope of work was to install tanks below the threshold of $80m^3$. After the revamp was completed and in preparation to activate the filling station it came to the knowledge of Leslie Community Filling Station (Pty) Ltd that the combined capacity of the underground fuel tanks exceeded the threshold capacity of $80m^3$ in that it is $83m^3$ made up by 2 x $30m^3$ and 1 x $23m^3$ tanks.

It now transpired that during the initial Covid 19 restrictions, imposed by the regulations relating to Covid 19 in terms of the Disaster Management Act, the availability of underground fuel tanks with a capacity below 20m³ were not available and the contractor was supplied with 2 x 30m³ and 1 x 23m³ underground fuel tanks by the supplier and same were installed.

The applicant consulted with Texture Environmental to assist with the way forward. Texture Environmental advised that Environmental Authorisation will be required should the combined capacity for the fuel storage be 80m³ and above. The 1 x 23m³ underground fuel tank will be viewed as an expansion to existing facilities and will require authorisation as the combined capacity will be above the threshold.

Due to the above circumstances, Texture Environmental was appointed 11 June 2021 to submit an application for environmental authorisation to the Department. It was decided to in addition, apply for expansion of the combined storage capacity, to allow for future expansion.



7 ACTIVITIES PROPOSED

The applicant proposes the expansion of the existing facilities for the storage of fuel and related uses with two (2) new fuel tanks of 46m³, equating to an additional 92m³ to the existing storage.

The proposed layout of the filling station is indicated in Figure 5 below. (Refer to layout attached as *Appendix B2.*)

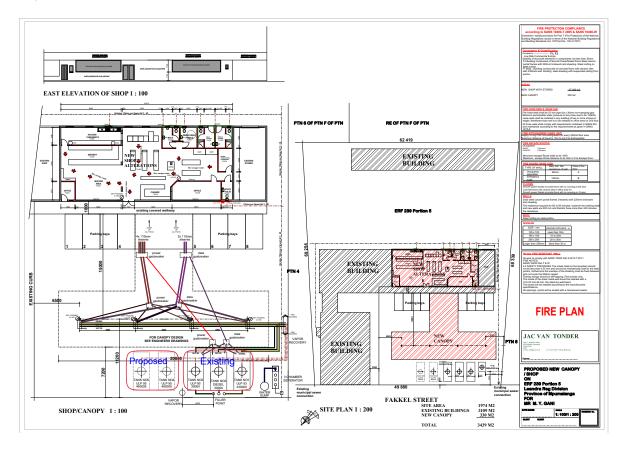


Figure 5: Proposed layout of additional facilities

8 SUMMARY OF EXISTING AND PROPOSED STORAGE CAPACITY ON SITE

Existing/ Proposed	Item	Storage Capacity	Total Storage Capacity	Type of Application
Existing	Existing storage tanks on site	2 x 30m ³	60m ³	No Application - Lawful revamp
Existing	Existing storage tanks on site	1 x 23m³	23m ³	S24G - Unlawful revamp
Proposed	Proposed new storage tanks	2 x 46m³	92m³	New Application for EA for expansion
Total comb	bined storage capacity		175m ³	



Existing storage on site

The existing storage capacity is 2 x 30m³, and 1 x 23m³, equating to a total of 83m³

Proposed additional storage

The proposed new fuel tanks are 2 x 46m³, equating to an additional 92m³ to the existing storage.

Total combined storage capacity

The total combined storage capacity on site will be 175m³, and will not exceed 500m³ (cubic metres).

9 REGULATORY PROCESS

The EAP was appointed to facilitate the NEMA S24G rectification application for the unlawful commencement of this activity.

The following process is undertaken in support of the Section 24G application:

A Basic Assessment (BA) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), read with the Environmental Impact Assessment Regulations, 2014 (EIA Regulations), as amended, is undertaken in support of the Section 24G application. The application is submitted to the Department of Agriculture, Rural Development, Land & Environmental Affairs: Section Environmental Impact Management.

Activities unlawfully commenced with in terms of the EIA Regulations promulgated in terms of the NEMA.

Government Notice No. Regulation 327 of the EIA Regulations of 4 December 2014 as amended: Listing Notice 1, Activities 51 and 67.

Government Notice	Activity Number and Description	Project Description
GN R. 327	Listing Notice 1 Activity 51 The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic metres.	The applicant commenced with the storage of fuel in containers with a combined capacity of $80m^3$ or more. The existing 2 X $30m^3$ fuel tanks are lawful and below the threshold, but the addition of the 1 x $23m^3$ caused an unlawful expansion above the threshold capacity of $80m^3$. In addition, the applicant proposes to expand on the existing facilities and install 2 x $46m^3$ fuel tanks, equating to an additional $92m^3$ to the existing storage. The combined capacity of the fuel tanks on site will thus be $175m^3$.
GN R. 327	Listing Notice 1 Activity 67 Phased activities for all activities— (i) listed in this Notice, which commenced on or after the effective date of this Notice or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; (ii) listed as activities 5, 7, 8(ii), 11, 13, 16, 27(i) or 27(ii) in Listing Notice 2 of 2014 or similarly listed in any of the previous NEMA	The applicant commenced with the expansion of the storage facility. The existing storage capacity is $2 \times 30m^3$, and $1 \times 23m^3$, equating to a total of $83m^3$. The applicant plans to expand on the existing facilities, and proposes to add $2 \times 46m^3$ tanks. The capacity of the proposed new fuel tanks on site will therefore be $92m^3$. The total combined storage capacity on site will thus be $175m^3$ and not exceed $500m^3$.

Table 1 : The activities for which are applied for, for rectification.



will exceed a specified threshold.

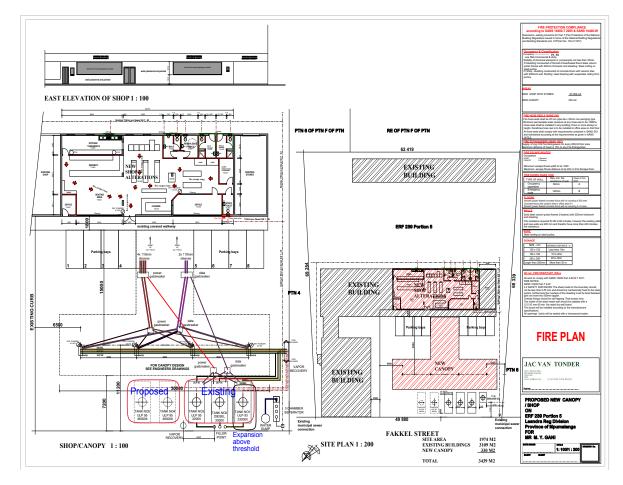


Figure 5: Activities commenced with: Refer to the above layout indicating the 23m³ tank that resulted in expansion above the threshold. Refer to *Appendix B3*

10 PHYSICAL SIZE OF THE ACTIVITY

The size of the site:

Alternative:	Size of the site (within which the above footprints will occur):
Alternative 1 (Proposal)	4041.25 m ² (0.404125 ha)

11 SITE ACCESS

The filling station site is established and no new access is planned. During construction all vehicle movement must be along existing roads. The existing entrance is from Norda Street (R29).



12 LAND USES

The current land uses (or land cover) of the study area is that of retail stores, filling station and other business and industrial related operations. Additional infrastructure includes parking areas and storerooms, with most surfaces that of hard paving.

13 TOPOGRAPY

The topography of the area is flat Highveld grassland plains. However, the study site is within the small town of Leandra, which is a built up urban environment with no natural features present. The average height above sea level at the study site is approximately 1 681m. The study site is very flat with a difference is maximum and minimum elevations of less than 1m.

14 GEOLOGY AND SOILS

The area around Leandra is underlain by fluvial and deltaic deposits of coarse sandstones, mudrocks and siltstones of the Early Permian Vryheid Formation (Pv, Ecca Group, Karoo Supergroup c. 290 to 270 Ma), which is known for its abundant coal deposits. The study area is also widely intruded by dykes, inclined sheets and sills of Jurassic-age dolerites (Jd). Superficial sediments are mainly represented by Quaternary alluvium and residual soils.

15 **ALTERNATIVES**

The proposal and alternatives that are considered in this application are described in the section below. Alternatives did include consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate are informed by the specific circumstances of the activity and its environment.

The no-go option is included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

1	Description of Alternatives	
No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")	Description
1	Layout Alternatives Layout Proposed	Due to the small size of the site, layout alternatives are limited.
	Layout hoposed	The preliminary layout (Layout Alternative Proposed) is the only feasible layout Alternative considered in this BAR. Refer to <i>Appendix B2.</i>
		The final design and layout of the facility are based on the specifications of the fuel supplier. A detailed layout for the facility, in compliance with their own internal specification, as well as relevant industry standards was compiled.
		The sensitivity assessment takes a number of issues into consideration. These include the terrestrial and the aquatic ecology of the site and immediate surrounding area; the presence of heritage resources etc.

2	Site Alternatives	According to the analyses of the floristic, faunal and overall ecological sensitivities there are no high sensitivity areas or habitats. In other words, there are no 'No-Go' areas within the study area. The ecological sensitivity of the site is calculated to be 'Low'. The whole of the site is therefore usable from a sensitivity point of view.
	Alternative Property	alternatives as the property has existing operational fuel facilities. The applicant has a lease agreement with the owner of the property. Alternative locations are therefore currently not available and would involve the lease or purchase of other land / other sites. The proposed expansion is compatible with the surrounding land uses and the predominant commercial character of the surrounding developments.
3	Alternative Activity: Current and future development trends in the area Commercial development Proposal/ preferred	 The site is in Leandra town and has been in operation for decades as a filling station with related infrastructure. Several commercial and industrial developments exist within this area thus setting the precedent and need for commercial development. The proposed development can be deemed desirable and in line with future development trends for the area: The character of the area has changed over time as a result of continuous development, supporting logistics and commercial uses. The area appears to be vibrant and dynamic due to the establishment of a range of commercial land uses. The impact of the proposed expansion will consequently not affect the character of the area, and it is further felt that the site is ideally suited for the proposed use. It will support the existing commercial development in the area. Noises caused by the development will be in accordance with the uses within the area. Based on the above, the proposed development is regarded as the preferred land use alternative.
4	Technology alternatives	No technology alternatives are being considered for this project as no feasible or reasonable alternatives are available. The underground storage of fuel for dispensing is governed by SANS 10089-3 and the installation of the storage tanks and associated fuel handling infrastructure will need to conform to these standards. This requirement limits the opportunity to implement alternate technology.
5	Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)	Alternative 1 Proposal with sustainable design principles. Sustainable design principles in terms of services will be implemented where feasibly possible. i.e. Solar panels. Alternative 2 Proposal with conventional design principles. Only conventional design principles in terms of services will be implemented



2 No-Go Alternative

This environmental application is made in terms of Section 24G of NEMA to recertify and undertake the listed activities in terms of GN R 327: 51 and 67 of the EIA regulations.

The do-nothing ("no go") option will entail not developing the site and maintaining the site as is. This is not a viable option as the site has been developed and operating as a filling station for many decades. The current application is to recertify and to expand on the existing use.

From an environmental perspective, the sensitivity of the study site is 'Low'. The study site is completely within a built-up, retail and urban environment. The study site itself is totally transformed, with most of the area being hard paved surfaces, buildings, etc. No Highly Sensitive or 'No-Go' habitats or environments occur on the study site. There are no watercourses in the study area, or wetlands within a 500m radius of the proposed project site. The study site is not within any priority areas, Critical Biodiversity Areas (CBAs), or Ecological Support Areas (ESAs).

The No-Go development alternative could therefore not be considered the responsible way to manage the site.

16 DESCRIPTION OF RECEIVING ENVIRONMENT

1 Property Description

Property description:	Erf 239, Portion 5 Leslie IR in the Govan Mbeki Local Municipality, Gert Sibande
	District Municipality in Mpumalanga Province

2 Activity Position

Proposed Alternative:	Latitude (S):	Longitude (E):
Site	26°22'04.70"	28°55'29.21"

The 21-digit Surveyor General code of each cadastral land parcel

PROPOSAL T 0 I R 0 3 8 8 0 0 0 0 0 2 3 9 0 0 0 5
--

3 Gradient of the Site

The general gradient of the site.

Flat X	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

4 Location in Landscape

Description of the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain X	Undulating plain/low hills	River front	
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5 Groundwater, Soil and Geological Stability of the Site

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)	YES	NO X
Dolomite, sinkhole or doline areas	YES	NO X



Seasonally wet soils (often close to water bodies)	YES	NO X
Unstable rocky slopes or steep slopes with loose soil	YES	NO X
Dispersive soils (soils that dissolve in water)	YES	NO X
Soils with high clay content (clay fraction more than 40%)	YES	NO X
Any other unstable soil or geological feature	YES	NO X
An area sensitive to erosion	YES	NO X
b) are any caves located on the site(s)	YES	NO X
c) are any caves located within a 300m radius of the site(s)	YES	NO X
d) are any sinkholes located within a 300m radius of the site(s)	YES	NO X

6 Surface Water

Indicate the surface water present on and or adjacent to the site and alternative sites (cross out ("II") the appropriate boxes)?

Perennial River	YES	NO X	UNSURE
Non-Perennial River	YES	NO X	UNSURE
Permanent Wetland	YES	NO X	UNSURE
Seasonal Wetland	YES	NO X	UNSURE
Artificial Wetland	YES	NO X	UNSURE

7 Agriculture

Does the site have high potential agriculture ?

NO X

YES

8 Groundcover

Description of the types of groundcover present on the site and the estimated percentage found on site

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 99,94	Natural veld with heavy alien infestation % = 0	Veld dominated by alien species % = 0	Landscaped (vegetation) % = 0
Sport field % = 0	Cultivated land % = 0	Paved surface (hard landscaping) % = 20	Building or other structure % = 45	Bare soil % = 35

Are there any rare or endangered flora or fauna species (including red list species) present on the site	YES	NO X
If YES, specify and explain:		

Are there any rare or endangered flora or fauna species (including red list species)	YES	NO X
present within a 200m (if within urban area as defined in the Regulations) or within		
600m (if outside the urban area as defined in the Regulations) radius of the site.		
If YES, specify and explain:		



Are there any spe site?	cial or sensitive habitats or other natural features present on the	YES	NO X
If YES, specify an	d explain:		

Was a specialist consulte	ed to as	ssist with completing this section			YES X	NO	
If yes complete specialis	t details	S					
Name of the specialist:		Johannes O. Mare	е				
Qualification(s) of the		MSc; MBA, Pr.Sci.	MSc; MBA, Pr.Sci.Nat.				
specialist:							
Postal address:		PO Box 7222; Mod	dimoll	е			
Postal code:		0510					
Telephone:	082 5	64 1211	Cel	l:	082 5	564 1211	
E-mail:	Johar	ines@flori.co.za	Fax	:	-		
Are any further specialist studie		s recommended by the specialist?)	YES	NO X
List the specialist reports	attach	ed below					
Terrestrial Ecological and	d Aqua	tic Impact Assessme	ents				
Signature of specialist:		Vace		Date:	16 July 2021		
	//	•					

9 Land Use Character of Surrounding Area

Cross out ("IZI") the block that reflects the land uses and/or prominent features that occur/red within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

1. Vacant land X	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir 7. Agriculture		8. Low density residential X	9. Medium to high density residential X	10. Informal residential
11. Old age home	12. Retail X	13. Offices 14. Commercial & warehousing		15. Light industrial X
16. Heavy industrial ^{an}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/ polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

10 Socio-Economic Context

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.



Background

Leandra is a town in Govan Mbeki Local Municipality, Gert Sibande District Municipality in the Mpumalanga province of South Africa. It is some 45 km east-south-east of Springs, comprising the former towns of Eendrag and Leslie. The name is a combination of Leslie and Eendrag.

According to Census 2011, Leandra has a total population of 2 023 people, of whom 43,7% are black African, 41,7% are white, with the other population groups make up the remaining 14,6%.

Key Statistics	2011
Characteristics	
Total population	2,023
Young (0-14)	25,1%
Working Age (15-64)	67,2%
Elderly (65+)	7,7%
Dependency ratio	48,9
Sex ratio	110,3
Population density	210 persons/km2
No schooling aged 20+	3,4%
Higher education aged 20+	18,3%
Matric aged 20+	37,5%
Number of households	508
Average household size	3,8
Female headed households	26,4%
Formal dwellings	98,6%
Housing owned/paying off	57,7%
Flush toilet connected to sewerage	90,4%
Weekly refuse removal	90,7%
Piped water inside dwelling	89,2%
Electricity for lighting	96,9%

TEXTURE

Education

Of those aged 20 years and older, 37,5% have completed matric, and 18,3% have some form of higher education, while 3,4% of those aged 20 years and older have no form of schooling.

Group	Percentage
No Schooling	3,4%
Some Primary	4,8%
Completed Primary	1,8%
Some Secondary	34,1%
Matric	37,5%
Higher Education	18,3%

<u>Economy</u>

10,8% of the population of Leandra is unemployed.

ncome	Percentage	
No income	10,8%	
R1 - R4,800	0,8%	
R4,801 - R9,600	1,8%	
R9,601 - R19,600	4,7%	
R19,601 - R38,200	10,8%	
R38,201 - R76,400	16%	
R76,401 - R153,800	20,1%	
R153,801 - R307,600	23,1%	
R307,601 - R614,400	8,9%	
R614,001 - R1,228,800	2,8%	
R1,228,801 - R2,457,600	0,2%	
R2,457,601+	0%	



11 Cultural/Historical Features

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	YES	NO X
Heritage assessment		

HCAC Heritage Consultants compiled a request for exemption from conducting a Heritage Impact Assessment. Refer to Appendix F2.

The following is applicable:

- The site was significantly altered by previous developments prior to the development of the filling station.
- The study area and surrounds have been developed from prior to 1964 as indicated on topographic maps in the above-mentioned letter.
- None of the natural topography of the site is left and the study area has been cleared, levelled, paved built up for the existing filling station.
- These developments would have obliterated any surface indicators of heritage resources if any ever occurred in the study area prior to the establishment of the filling station and it is unlikely that the expansion of the filling station and fuel tanks have impacted on any sites of significance and no further remedial action, or mitigation is needed.
- Therefore, an application for exemption from further heritage studies is supported.

Palaeontological Assessment

The palaeotological sensitivity of the area is insignificant/ grey on the SAHRIS palaeomap, therefore
there is no requirements for an assessment of impacts to palaeontological resource. No impacts to
palaeontological resources would have occurred during the development of the project.

Recommendation:

That the development be exempted from doing an HIA or PIA.

Mitigation

Should construction work begin for this project:

- A chance finds protocol should be adhered to.
- In the unlikely event that fossils are uncovered during construction then construction must cease within the immediate vicinity, a buffer of 30 m must be established, and a palaeontologist called in to inspect the finds.
- The palaeontologist must obtain a section 35(4) permit in terms of NHRA and Chapter IV NHRA Regulations, before any fossils are collected.
- If there are any new heritages resources are discovered during construction and operation phases of the proposed development, then a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings at the expense of the developer.
- If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required at the expense of the developer. Mitigation will only be carried out after the archaeologist or palaeontologist obtains a permit in terms of section 35 of the NHRA (Act 25 of 1999).
- The applicant of ECO may contact SAHRA APM Unit for further details: (Nokukhanya Khumalo/ Phillip Hine 021 202 8654).
- If any unmarked human burials are uncovered and the archaeologist called in to inspect the finds and/or the police find them to be heritage graves, then mitigation may be necessary and the SAHRA Burial



Grounds and Graves (BGG) Unit must be contacted for processes to follow (Thingahangwi Tshivase/Mimi Seetelo 072 802 1251).

17 PUBLIC PARTICIPATION

1 Public Participation Process

Texture Environmental has taken cognisance of the requirements for public participation in terms of the 2014 EIA Regulations and the requirements for the Section 24G application, and has ensured that the public participation principles are upheld. A successful Public Participation Programme (PPP) is one that is inclusive, actively engages the public and provides ample opportunity for the public to participate in the process. This document provides an overview of the PPP undertaken as part of the BA process for the proposed project.

The purpose of the PPP is to ensure that the issues, inputs and concerns of Interested and Affected Parties (I&APs) are taken into account during the decision-making process. This requires the identification of I&APs (including authorities and the public), communication of the process and findings to these I&APs and the facilitation of their input and comment on the process and environmental impacts, including issues and alternatives that are to be investigated.

The steps taken during the execution of the PPP undertaken for this project are detailed in the Comment and Responses Report in *Appendix E5.*

2 Conclusion of Public Participation Programme

Environmental Authorisation process in terms of Section 24G of the National Environmental Management Act 107 of 1998 (NEMA), to rectify and undertake the listed activities in terms of GN R 327: 51 and 67 of the Environmental Impact Assessment (EIA) regulations.

Activity	Description and Purpose				
Pre-Application					
Preparation of a preliminary stakeholder database	base provincial), Non-Governmental Organisations, neighbouring landowners and other key stakeholders (<i>refer to Appendix E7</i>). This database of registered I&APs will be maintained and updated during the ongoing BA process.				
Preparation and Distribution of a Background Information Document (BID)	On 22-06-2021 BIDs were distributed via email to all I&APs on the database. See <i>Appendix E2c</i> for proof of written submissions. The BID provides an introduction to the rectification application. Refer to <i>Appendix E2a</i> .				
Advertisement of the Project and Erection of Site Notices	The Project was advertised on 24-06-2021 in the newspaper, Beeld. See proof of Advertisement in <i>Appendix E3</i> . A Site notice has been placed on 17-06-2021 at the forecourt area of the filling station. See proof of placement in <i>Appendix E1</i> .				
Development of a Comments and Response Report	All comments received during the initial consultation period were recorded in a Comments and Response Report attached as				

Refer to below for details of the public participation tasks that have been undertaken for the above.



	Appendix E5. Refer to Appendix E6 for comment received in the notification phase.			
BA Phase				
Submission of Basic Assessment	Subsequently the final BAR is submitted to DARDLEA. The final			
Report to Environmental Authority	BAR includes all concerns raised and the responses thereto.			
Environmental Decision				
Notification of Environmental Decision	I&APs will be notified of the Environmental Decision and the			
	statutory appeal period.			

18 RESOURCE USE AND PROCESS DETAILS

1 Waste, Effluent, Emission and Noise Management

a) Solid waste management

 Will the activity produce solid construction waste during the construction/initiation phase?
 YES X
 NO

 If YES, what estimated quantity will be produced per month?
 To be confirmed

How will the construction solid waste be disposed of (describe)?

The filling station is existing, therefore construction waste is expected to be minimal. The only planned construction will be the placement of two new underground tanks.

General waste and hazardous waste will be collected and stored separately, according to the requirements of the waste type.General waste will be disposed of at a licensed municipal landfill site.

Hazardous wastes will be collected by an approved waste disposal service provider and will be disposed of at a licensed hazardous waste landfill site.

All construction waste will be cleared from the site by the end of the contract.

Where will the construction solid waste be disposed of (describe)?

General wastes will be directed to the nearest landfill, managed by the Local Municipality.				
Hazardous wastes will be directed to the nearest licensed H:h La	andfill site.			
Will the activity produce solid waste during its operational phase? YES NO X				
If YES, what estimated quantity will be produced per month?	This amount will fluctuate based on the number of customers making use of the facility			
How will the solid waste be disposed of (describe)?				



Waste which will be generated during the operational phase of the filling station includes general office wastes, domestic and packaging waste, sludges from the oil/grease traps on the stormwater management system and contaminated materials from the clean-up of potential fuel / oil spills. These comprise both general and hazardous waste types.

General office waste and domestic and packaging waste from the store/ office will include paper, cardboard, plastic and tins. These wastes will be stored in a general refuse area on site and will be transported on a regular basis to the nearest licensed general waste landfill site.

The filling station operator will be responsible for undertaking monthly inspections of the oil/water separators to ensure their continued functioning. Cleaning of these separators will be undertaken by an appropriate cleaning company. Wastes generated from this cleaning process will most likely be hazardous in nature and will therefore be transported off site to an appropriate treatment and disposal facility by cleaning company. Additional hazardous wastes will include fuel / oil contaminated materials utilised at the filling station, for example, empty oil cans and oily rags, etc. These wastes will be stored in a designated, appropriately designed hazardous waste storage area, to minimize potential environmental impacts arising from this activity. Hazardous wastes will be transported on a regular basis to the nearest licensed hazardous waste landfill site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Leandra Landfill Site.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

Sludges cleared from the oil / grease traps on the wash water and stormwater management systems will be collected and transported off site to an appropriate treatment and disposal facility by an appropriate waste handling company.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA? YES X

NO

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

The hazardous wastes generated by the operational facility will include fuel/oil contaminated containers / materials and sludges collected in the oil / grease traps on the wash water and stormwater management systems.

Storage and handling activities proposed as part of the operational phase of this project (i.e. for the storage and handling of fuel-contaminated materials and containers, sump and oil / grease trap contents), do not exceed the thresholds and therefore do not trigger any of the Listed Activities published in GN 921 of 29 November 2013, in terms of the NEMWA, 2008. There is in addition no requirement to change the NEMA BA application process to a Scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? YES NO X If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.



b) Liquid effluent

Will the estivity pre	aduan affluant other than normal neurons, that will be dispanded of in a	T				
	oduce effluent, other than normal sewage, that will be disposed of in a	YES	NO X			
municipal sewage		-	-			
If YES, what estim	ated quantity will be produced per month?	N/A				
Will the activity pro	oduce any effluent that will be treated and/or disposed of onsite?	YES	NO X			
If YES, describe th	ne type of effluent and the disposal mechanism/method					
Will the activity pro	oduce effluent that will be treated and/or disposed of at another facility?	YES	NO X			
If YES, provide the	If YES, provide the particulars of the facility:					
Facility name:						
Contact person:						
Postal address:						
Postal code:						
Telephone:	Cell:					
E-mail:	Fax:					
Describe the measu	ures that will be taken to ensure the optimal reuse or recycling of waste	water, if a	any:			
Not applicable		· · ·				

Not applicable

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and	YES	NO X		
dust associated with construction phase activities?				
If YES, is it controlled by any legislation of any sphere of government?	YES	NO		
If YES, the applicant must consult with the competent authority to determine whether it is ne	cessary to	change		
to an application for scoping and EIA.		-		
If NO, describe the emissions in terms of type and concentration:				
Sources of emissions during the operational phase will include transfer of fuel from tank	ers to the	storage		
tanks, transfer of fuel from the storage tanks to heavy duty vehicles and exhaust fumes fr	om these	vehicles		
at the fuel depot.				
Emissions released from the site during the construction and the operational phases are considered to be				
negligible and are expected to be well below the ambient emission standards.				
Emissions will not be considered further in this environmental assessment.				

Waste Licence/Registration d)

Will any aspect of the activity produce waste that will require a waste licence/registration	VEQ	NO X
in terms of the NEM:WA?	IE0	NO A

If YES, please submit evidence that an application for a waste licence/registration has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	YES	NO X	
If YES, is it controlled by any legislation of any sphere of government?	YES	NO	
If YES, the applicant should consult with the competent authority to determine whether it is necessary to			
change to an application for scoping and EIA.		-	
If NO, describe the noise in terms of type and level:			



The movements of construction vehicles, machinery and other construction activities will generate noise on site and affect nearby facilities in the industrial area. However, the noise will be of a short term, temporary, localised nature and will only last during the construction phase of the project.

Noise generated during the operational phase will mainly be the noise generated by increased traffic and noise generated by the proposed facilities and activities.

The noise level is anticipated to be less than 50dBA to the nearest sensitive receivers as required by SANS 10103 and thus authorisation will not be required for the noise impacts.

2 Water Use

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal X	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water
-------------	-------------	-------------	-------------------------------	-------	---------------------------------

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	litres	
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water and Sanitation?	YES	NO X

3 Energy Efficiency

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient: SANS/SABS specifications will apply to any installation of underground tanks and associated infrastructure.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

The requirement for energy sufficiency and alternative energy sources will be communicated with the project manager during the design phase of the project.

Has a specialist been consulted to assist with the completion of this section?	YES	NO X	
--	-----	------	--

19 SPECIALIST INPUT

Specialist input was obtained to investigate the impact of the various alternatives that could accomplish the purpose of the project. The specialist input is summarised as follows:

1 Biodiversity Assessment

The following information has been extracted from the Biodiversity Assessment (Ecological Assessment and Wetland Assessment) conducted by Flori Scientific Services cc. Refer to *Appendix F1* for the report.

Vegetation

There is no natural vegetation / environment left on site. The entire site is transformed, including the backyard area with bare ground.

<u>Watercourses</u>

There are no watercourses on site, including wetlands.



Drainage areas

A summary of the drainage region in which the study site is situated is summarised below in the Table below.

Level	Category
Primary Drainage Area (PDA)	В
Quaternary Drainage Area (QDA)	B20E
Water Management Area (WMA) – Previous / Old	Olifants
Water Management Area (WMA) – New (as of Sept. 2016)	Olifants (WMA 2)
Sub-Water Management Area	Upper Olifants
Catchment Management Agency (CMA)	Olifants (CMA 2)
Wetland Vegetation Ecoregion	Mesic Highveld Grassland (Group 3)
Fish FEPA	No
Fish FSA	No
Fish Corridor	No
Fish Migratory	No
Priority Quaternary Catchment	No
SWSA (National importance)	No
WSA (Sub-national, provincial importance)	No

Table : Summary of Catchment Areas

Sensitivity analyses

The study site is totally transformed, with most of the area being hard paved surfaces, buildings, etc. The sensitivity of the study site is 'Low'.

The natural environment within the study area is totally transformed. The sensitivities of the habitats are first assessed separately in terms of fauna and flora (tables below) and then combined into a combined ecological sensitivity analysis.

Table : Floristic sensitivity analysis

Distinctive habitats in the study area
Transformed
1
1
1
1
1
10%
Low

Low: 0-20%; Medium/Low: 20-40%; Medium: 40-60%; Medium/High: 60-80%; High: 80-100%

Table : Faunal sensitivity analysis

Criteria	Distinctive habitats in the study area
	Transformed
Red Data Species	1
Habitat Sensitivity	1
Floristic Status	1
Floristic Diversity	1
Ecological Fragmentation	1
Sensitivity Index	10%
Sensitivity Level	Low

Low: 0-20%; Medium/Low: 20-40%; Medium: 40-60%; Medium/High: 60-80%; High: 80-100%



The ecological sensitivity of the study site is determined by combining the sensitivity analyses of both the floral and faunal components. The highest calculated sensitivity unit of the two categories is taken to represent the sensitivity of that ecological unit, whether it is floristic or faunal in nature.

According to the actual analyses there are no "High" sensitivity areas or habitats.

Table : Ecological sensitivity analysis

Ecological community	Floristic sensitivity	Faunal sensitivity	Ecological sensitivity
Transformed	Low	Low	Low

Sensitivity map

Below is a sensitivity map of the study site.



Figure : Sensitivity map

Priority Areas

The study site is not within any priority areas, Critical Biodiversity Areas (CBAs), or Ecological Support Areas (ESAs).

Fatal flaws There are no fatal flaws.

Conclusions & Recommendations

The conclusions and recommendations of the study are as follows:

- The study site is completely within a totally transformed, built-up, industrial and urban environment.
- There is no existing natural grasslands or other natural habitats present on site. There is some bare ground, grass and a few alien trees in the back yards of the site, but this is also totally transformed and cannot be viewed as natural.



- There are no watercourses in the study area, or wetlands within a 500m radius of the proposed project site.
- There are no fatal flaws and the project may proceed, in terms of the ecological component.
- Recommended mitigating measures as proposed in this study and report should be implemented.

2 Heritage

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon.

Heritage assessment

HCAC Heritage Consultants compiled a request for exemption from conducting a Heritage Impact Assessment. Refer to *Appendix F2*.

The following is applicable:

- The site was significantly altered by previous developments prior to the development of the filling station.
- The study area and surrounds have been developed from prior to 1964 as indicated on topographic maps in the above-mentioned letter.
- None of the natural topography of the site is left and the study area has been cleared, levelled, paved built up for the existing filling station.
- These developments would have obliterated any surface indicators of heritage resources if any ever occurred in the study area prior to the establishment of the filling station and it is unlikely that the expansion of the filling station and fuel tanks have impacted on any sites of significance and no further remedial action, or mitigation is needed.
- Therefore, an application for exemption from further heritage studies is supported.

Palaeontological Assessment

• The palaeotological sensitivity of the area is insignificant/ grey on the SAHRIS palaeomap, therefore there is no requirements for an assessment of impacts to palaeontological resource. No impacts to palaeontological resources would have occurred during the development of the project.

Recommendation:

That the development be exempted from doing an HIA or PIA.

Mitigation

Should construction work begin for this project:

- A chance finds protocol should be adhered to.
- In the unlikely event that fossils are uncovered during construction then construction must cease within the immediate vicinity, a buffer of 30 m must be established, and a palaeontologist called in to inspect the finds.
- The palaeontologist must obtain a section 35(4) permit in terms of NHRA and Chapter IV NHRA Regulations,
- before any fossils are collected.
- If there are any new heritages resources are discovered during construction and operation phases of the proposed development, then a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings at the expense of the developer.
- If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required at the expense of the developer. Mitigation will only be carried out after the archaeologist or palaeontologist obtains a permit in terms of section 35 of the NHRA (Act 25 of 1999).
- The applicant of ECO may contact SAHRA APM Unit for further details: (Nokukhanya Khumalo/ Phillip Hine 021 202 8654).



• If any unmarked human burials are uncovered and the archaeologist called in to inspect the finds and/or the police find them to be heritage graves, then mitigation may be necessary and the SAHRA Burial Grounds and Graves (BGG) Unit must be contacted for processes to follow (Thingahangwi Tshivase/Mimi Seetelo 072 802 1251).

20 IMPACT ASSESSMENT

The assessment of impacts adheres to the minimum requirements in the EIA Regulations, 2014, as amended, and took applicable official guidelines into account. The issues raised by interested and affected parties were also addressed in the assessment of impacts, as well as the impacts of not implementing the activity.

1 Issues raised by interested and affected parties

22/06/2021	Eskom Transmission is not affected by this application.
29/06/2021	Sasol Satellite Operations is not affected by this application.
21/07/2021	Eskom Distribution services are not affected by this application.

2 Impacts that may result from all phases as well as proposed mitigation measures

Existing storage on site

The existing storage capacity is 2 x 30m³, and 1 x 23m³, equating to a total of 83m³

Proposed additional storage

The proposed new fuel tanks are 2 x 46m³, equating to an additional 92m³ to the existing storage.

Total combined storage capacity

The total combined storage capacity on site will be 175m³, and will not exceed 500m³ (cubic metres).

Existing/ Proposed	ltem	Storage Capacity	Total Storage Capacity	Type of Application
Existing	Existing storage tanks on site	2 x 30m ³	60m ³	No Application - Lawful revamp
Existing	Existing storage tanks on site	1 x 23m ³	23m ³	S24G - Unlawful revamp
Proposed	Proposed new storage tanks	2 x 46m ³	92m³	New Application for EA for expansion
Total combined storage capacity			175m ³	

The key impacts for the development include the following:

- Installation of 2 x 30m³, and 1 x 23m³ fuel tanks, equating to a total of 83m³ in fuel storage. The installation
 of the 1 x 23m³ was unlawful and this S24 Application is to rectify the unlawful commencement of the
 activity.
- In addition, this application is for the expansion of the facility with 2 x 46m³, equating to an additional 92m³ to the existing storage.



STORAGE OF DANGEROUS GOODS

The potential impacts of the proposed development were identified through a desktop study, a site visit, specialist studies and comments received during the public participation process. It is evident that the biggest impact of the project on the environment is expected to occur during the construction phase. It is expected that with the proposed mitigation of impacts and the implementation of the Environmental Management Programme, the expected negative impact could be mitigated to acceptable measures.

METHODOLOGY UTILISED IN THE RATING OF SIGNIFICANCE OF IMPACTS

The potential environmental impacts associated with the project will be evaluated according to its nature, extent, duration, intensity, probability and significance of the impacts, whereby:

- Nature: A brief written statement of the environmental aspect being impacted upon by a particular action or activity.
- Extent: The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale.
- > Duration: Indicates what the lifetime of the impact will be.
- > Intensity: Describes whether an impact is destructive or benign.
- > Probability: Describes the likelihood of an impact actually occurring; and
- Cumulative: In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Criteria	Description			
Extent	National (4) The whole of South Africa	Regional (3) Provincial and parts of neighbouring provinces	Local (2) Within a radius of 2 km of the construction site	Site (1) Within the construction site
Duration	Permanent (4) Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	Long-term (3) The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	Medium-term (2) The impact will last for the period of the construction phase, where after it will be entirely negated	Short-term (1) The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
Intensity	Very High (4) Natural, cultural and social functions and processes are altered to extent that they permanently cease	High (3) Natural, cultural and social functions and processes are altered to extent that they temporarily cease	Moderate (2) Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	Low (1) Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
Probability of occurrence	Definite (4) Impact will certainly occur	Highly Probable (3) Most likely that the impact will occur	Possible (2) The impact may occur	Improbable (1) Likelihood of the impact materialising is very low

TABLE : CRITERIA TO BE USED FOR RATING OF IMPACTS

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

TABLE : CRITERIA FOR THE RATING OF CLASSIFIED IMPACTS

Low impact	A low impact has no permanent impact of significance. Mitigation measures are feasible and are	
(4 - 6 points)	readily instituted as part of a standing design, construction or operating procedure.	
Medium impact (7 - 9 points)	Mitigation is possible with additional design and construction inputs.	
High impact (10 - 12 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.	
Very high impact (13 - 20 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw.	
Status	Denotes the perceived effect of the impact on the affected area.	
Positive (+)	Beneficial impact.	
Negative (-)	Deleterious or adverse impact.	
Neutral (/)	Impact is neither beneficial nor adverse.	
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.		

1 Planning and Design Phase

The potential impacts, significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning phase for the various alternatives of the proposed development.

ALTERNATIVE 1 (PROPOSAL)			
DIRECT IMP/	ACTS		
Potential Impacts	Significance Rating	Mitigation Measures	
Accessibility of the site Site that is not easily accessible will result in traffic congestion, dangerous traffic manoeuvres and risk to pedestrians The site has an existing entrance and additional impact on traffic is expected to be low.	LOW	Site access to conform to municipal standards and road traffic legislation.	
Impact on the Natural Habitat and water resources Insensitive layout can cause a negative impact on the natural habitat of not only the site itself, but also on the surrounding natural environment. The context of the development site within the macro area in terms of conservation areas also plays a major role when suitable areas for development are being considered. The development site (or parts thereof) could form part of important ecological corridors and such corridors could be destroyed if the functioning thereof is not being supported by the development proposal.	LOW	 Site-specific measures in terms of biodiversity as identified by Johannes Maree (Tel 082 564 1211), must be included in the contract with the Contractor and implemented by the Contractor during the construction phase. The storage tanks must be designed and installed in accordance with the SANS 10089-3:1999*SABS 089-3:1999 Code of practice - The Petroleum Industry, Part 3: The installation of underground storage tanks, pumps/ dispensers and pipework at service stations and consumer installations. Standard fuel depot construction designs, including above SANS specifications will apply. Design to include an appropriate management system for contaminated stormwater runoff. 	
The site is within a commercial area and of low sensitivity. <u>Ground and surface water pollution</u> Areas in close proximity to fuel dispensing equipment carry a high environmental risk associated with intensive fuelling activity and the potential for minor spills to accumulate.	MEDIUM	 Standard fuel station construction designs, including SANS specifications will apply. Design to include an appropriate management system for contaminated stormwater runoff. 	

INDIRECT IN	MPACTS	
No indirect impacts were identified during the planning and design phase.		
CUMULATIVE IMPACTS		
No cumulative impacts were identified during the planning and design phase.		

NO GO ALTERNATIVE

DIRECT IMPACTS				
Potential Impacts	Significance	Mitigation Measures		
	Rating			
No direct impacts were identified during the planning and				
design phase.				
INDIRECT I	MPACTS			
No indirect impacts were identified during the planning				
and design phase.				
CUMULATIVE IMPACTS				
No cumulative impacts were identified during the planning				
and design phase.				
<u> </u>				

2 Construction Phase

ALTERNATIVE 1 (PROPOSAL)

DIRECT IMPACTS					
Potential Impacts	Significance Rating	Mitigation Measures			
<u>Geology and soils</u> Soil disturbances and erosion.	LOW	A stormwater and erosion control plan must be implemented across the entire development site to prevent and control erosion impacts.			
Groundwater and surface water contamination Contamination of the environment, specifically the soil and groundwater could arise during the construction phase. The potential exists for construction activities, workers and materials to transfer contaminants to the surrounding environment. This could arise as a result of, for example, inadequate ablution facilities, spillage of hazardous substances stored on the site, fuel and oil leaks, inappropriate responses to hazardous spills and improper waste handling, storage and disposal. Only 2 additional underground fuel tanks will be placed therefore only minimal construction activities will take place.	LOW	 Any portable toilets should be kept away from sensitive drainage areas. Portable toilets used during construction must be connected to the bulk sewerage lines if possible. Alternatively, portable toilets should be sealed units that can be cleaned by truck and the waste must be taken to a suitable sewage facility for treatment. They should be well maintained and regularly cleaned and sewage should not be allowed to directly access the groundwater. All vehicles shall be properly maintained and serviced so that no oil leaks occur on site. A storm water plan must be available and used during all the phases of construction. Vehicles and machines on site must be maintained properly to ensure that oil spillages are kept at a minimum. Spill trays must be provided for refueling. Every effort must be made to ensure that any chemicals or hazardous substances do not contaminate the soil or ground water on site. 			
Impact on vegetation This impact is associated with disturbance to and/or destruction of the flora component. During construction the activities could cause a negative impact where insensitive clearing for construction and access purposes, etc. is required. Insensitive clearing can cause the destruction of habitat. Not only does vegetation removal represent a loss of seed and organic matter, but it is also a loss of protection to plants and small animals. Insensitive vegetation clearance can also cause erosion. The development site The study area is disturbed and degraded. There are no priority species, including red data species.	LOW	 Detail mitigation measures are stipulated in the EMPr and include the following: Ensure a proper Stormwater Management Plan is compiled and implemented. No fires whatsoever may be made for the burning of vegetation and waste. Firefighting equipment must be readily available on site. Alien vegetation shall be managed and Category 1, 2 and 3 plants shall be controlled to the extent necessary to prevent or to contain the occurrence, establishment, growth, multiplication, propagation, regeneration and spreading of such plants. 			
Impacts associated with construction activities such as noise, dust and safety	MEDIUM	 Noise mitigation measures Construction hours will be restricted to specific periods that exclude Sundays and public holidays. 			
The negative impact of noise and dust, generally associated with construction activities, are temporary,		Dust mitigation measures			

occurring mostly during the construction phase. The impact should however be considered in context with the nature of the surrounding area. Minimal construction activities to take place. Only 2 additional underground fuel tanks to be placed. The noise and dust impact is therefore not expected to be significant.		 Sweeping of construction sites, clearing of building rubble and debris as well as regular watering of the construction site (storage areas, roads, etc.) must take place on a regular basis. There should be strict speed limits on site roads to prevent the liberation of dust into the atmosphere. Safety mitigation measures A Fire Management Plan has to be identified during the pre-construction phase and must be implemented throughout the construction and operation phases of the development.
<u>Traffic</u> The construction phase is likely to generate additional traffic in terms of heavy vehicles delivering fuel to the site. This will however be of limited impact.	MEDIUM	The limited additional traffic generated is well within the capacity of the existing road network.
Impact on Cultural Heritage Resources No heritage resources were identified.	LOW	 The requirements in terms of section 3(4) of the NEMA Regulations and section 38(8) of the NHRA in the format provided in section 38(4) of the NHRA are: 38(4)c(i) – If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Phillip Hine 021 202 8654) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule; 38(4)c(ii) – If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/ Mimi Seetelo 072 802 1251), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section 51(1)e of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of section 51(1)e of the NHRA and item 5 of the Schedule; 38(4)c(ii) – If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/ Mimi Seetelo 072 802 1251), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule; 38(4)e – The following conditions apply with regards to the appointment of specialists: If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.
<u>Waste Management</u> The construction phase will create builder's and domestic waste to be accommodated by local legal landfill sites. The volume of waste created during construction will be minimal as no major excavations will take place.	LOW	 Develop a central waste temporary holding site to be used during construction. (if required). This site should comply with the following: Skips for the containment and disposal of waste that could cause soil and water pollution, i.e. lubricants, etc.; Small lightweight waste items should be contained in skips with lids to prevent wind littering; Bunded areas for containment and holding of dry building waste; Workers will only be allowed to use temporary chemical toilets on the site.
INDIRECT IMPACTS		
Economic impacts Positive economic impacts are anticipated. The impact on employment would be positive, and although the impact is expected to be small; any contribution to more employment is an achievement in South Africa.	POSITIVE LOW	Positive economic impacts are anticipated during the construction phase of the proposed development. The construction phase of the proposed development will provide employment opportunities. The construction phase employment opportunities generated by the proposed development are considered a positive economic impact of low significance. Many people in the local communities are unemployed and employment and skills transfer is critical to addressing this issue. Construction material was purchased locally with resulting positive impact to the local economy. The activity has not given rise to any negative socio-economic impacts but rather to a positive impact.
CUMULATIVE IMPACTS		
Ground and surface water pollution There is potential for soil and groundwater contamination as a result of accidental spills and leaks from underground storage tanks and associated infrastructure that may have	MEDIUM	 A storm water plan must be available and used during all the phases of construction. Vehicles and machines on site must be maintained properly to ensure that oil spillages are kept at a minimum. Spill trays must be provided for refuelling.



occurred over long periods. Contaminants may have been transferred to the surrounding environment.	 Every effort must be made to ensure that any chemicals or hazardous substances do not contaminate the soil or ground water on site.
Hydrocarbon contamination may persist in the subsurface for an extended period before degradation takes place.	

NO GO ALTERNATIVE		
DIRECT IMPACTS		
Potential Impacts	Significance Rating	Mitigation Measures
All the impacts outlined above will not apply to the No-Go alternative as the status quo will apply and the environment will remain as it is currently. However, it is important to note that the benefits associated with the development will also not materialise, and it must be noted that the majority of the impacts identified for the development were mitigated to a negative low or positive impact once the measures for mitigation were applied, indicating that maintaining the status quo is to lose the opportunity of a beneficial development with negligible environmental impacts.		
INDIRECT IMPACTS		
No indirect impacts were identified during the construction phase.		
CUMULATIVE IMPACTS		
No cumulative impacts were identified during the construction phase.		

3 Operational Phase

ALTERNATIVE 1 (PROPOSAL)

DIRECT IMPACTS						
Potential Impacts	Significance Rating	Mitigation Measures				
Soil and Groundwater Contamination There is potential for soil and/ or groundwater contamination during the operation phase, as a result of accidental spills or leaks from the underground fuel tanks and handling infrastructure, including pipework. In the absence of the correct design standards, groundwater contamination could potentially arise during the operational phase of the proposed development. Unmitigated, the potential impact on groundwater aquifers would have a negative impact of very high significance. However if the aboveground storage facilities are designed and installed in accordance with the SANS Standards, the impact might be limited. When petroleum filling stations are designed and installed according to the correct standards, ground water contamination concerns are more focused on potential leaks from pipe fittings/valves and spillages which may occur from time to time, during the transfer of petroleum products to the storage tanks. By implementing the recommended mitigation measures, the potential groundwater impact associated with the proposed development will have a low significance. Contamination could furthermore arise as a result of the spillage of hazardous substances, inappropriate responses to hazardous substances, inappropriate responses to hazardous substances, inappropriate	MEDIUM	 Storm water originating from the filling surface area must be treated as dirty water. Stormwater management from the forecourt area should be designed to collect all runoff which should pass through an oil/water separator prior to being discharged. Clean water and dirty water systems must be separated. Storm water must be directed away and around the fuel depot sites. Leak detection systems must be implemented in all fuel storage and transmission lines and tanks. A proper leakage detection system must be installed to prevent contamination of the surrounding soil and ground water in the event of a leak. The spillage of fuels, chemicals and or sewerage water must be immediately reported to the assigned Departments stipulated in the water use licence document and other documents stipulating monitoring practices. An emergency accidental spillage plan must be in place and workers must be trained to handle such accidents. No uncontrolled discharges resulting in pollution of the receiving environment and aquifer shall be permitted. Chemical storage areas should be sufficiently contained, and the use of chemicals should be controlled. The storage tanks must be designed and installed in accordance with the SANS 10089-3:1999"SABS 089-3:1999 Code of practice - The Petroleum Industry, Part 3: The installation of underground storage tanks, pumps/ dispensers and pipework at service stations and consumer installations. An Emergency Response Plan must be in place for the site, this must clearly describe emergency procedures and include emergency Response Plan must be followed. Following a leak or accidental spill, a remediation plan must be compiled and executed. 				

management system or stormwater management system.	MEDIUM	 Accidental spills that may occur on the forecourt must be cleaned up immediately using a spill absorbent, which must then be removed by a licensed contractor. Fuel stock must be monitored on a daily basis and these records must be kept on site. The forecourt must have an impervious surface, such that fuel and oil products will not leak into the soil A Stormwater Management Plan must be implemented.
impact on water resources. Increased coverage of paved/hardened surfaces may increase the volume and velocity of stormwater runoff.		
<u>Traffic impact</u> The existing filling station came into operation before	LOW	No mitigation required
March 1998 and had a combined capacity of 115 000 litres = $115m^3$ (cubic metres) of fuel. The filling station has therefore been operational for decades. The applicant entered into a lease agreement on condition to upgrade the existing filling station. The filling station was revamped to a capacity of $83m^3$ and subsequently an additional 2 x 46m ³ tanks are proposed. This equates to a combined fuel storage capacity of 175 m ³ over a phased period.		
The additional development trips to be generated by the expansion of 60m ³ of fuel will have a negligible effect on the external road network. The contribution to the cumulative traffic impact is minor.		
<u>Air Quality Impacts</u> Impacts on air quality will arise due to exhaust fumes from tankers, emissions from vent pipes and the release of VOCs during fuel transfer. The VOCs released during fuel transfer and from vents will dissipate into the atmosphere shortly after being released and are not likely to travel to the surrounding areas.	LOW	 The storage tanks must be designed and installed in accordance with the SANS 10089-3:1999*SABS 089-3:1999 Code of practice - The Petroleum Industry, Part 3: The installation of underground storage tanks, pumps/ dispensers and pipework at service stations and consumer installations. SANS standards adequately address various potential air quality impacts via the implementation of required engineering measures. All fuel delivery vehicles must be adequately maintained to reduce exhaust emissions.
<u>Visual Impact</u> The site is existing and there are existing underground tanks. This application is for expansion of the fuel capacity. No additional visual impact is expected seeing that the site is in an existing commercial area.	LOW	Litter and waste should be effectively managed to avoid visual problems in the area.
Socio-Economic Impact Employment opportunities The proposed expansion of the filling station is highly likely to be viable. Positive economic impacts are anticipated. The impact on employment would be positive, and although the impact is expected to be small; any	LOW POSITIVE	The proposed development will supply employment opportunities and will contribute to the local economy. The operational phase employment opportunities generated by the proposed development are considered a positive economic impact of low significance.
contribution to more employment is an achievement in South Africa.	LOW	Neige levels should comply with the CANC Code of Drastics 100102 0004
<u>Noise Impact</u> Noise caused by filling station	LOW	 Noise levels should comply with the SANS Code of Practice 100103 – 0994 (recommended noise levels). Local by-laws for noise levels must be adhered to.
Health and Safety Impacts Petroleum and diesel fuel are considered dangerous substances as they are volatile and could potentially ignite under specific circumstances. Therefore, there is a risk of fire or explosions on site, which would pose a threat to on-site employees and surrounding land users and occupiers. However, this impact is highly unlikely to occur as there are numerous imbedded mitigation measures to minimize the risk of fires and explosions.	LOW	 Fire extinguishers and sand bags must be readily available onsite and easily accessible. Firefighting equipment must comply with SANS 1151 (Portable rechargeable fire extinguishers -Halogenated hydrocarbon type extinguishers), and must be inspected regularly. Appropriate health and safety signage must be displayed on site. An Emergency Response Plan must be in place for the site, this must clearly describe emergency procedures and include emergency contact numbers. No smoking may be permitted on site.



INDIRECT IMPACTS		 No cell phones may be used during fuel dispensing. Staff must be trained adequately so as to identify potential high risk situations and implement the Emergency Response Plan. Overfill and spillages during tanker refueling and fuel dispensing should be prevented by the installation of automatic cut off devices. Tanker 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.
Impact on existing filling stations	MEDIUM	No mitigation required
There is a possibility that the proposed facility will compete with existing, established filling stations located in proximity to the proposed development site. This would affect the economic feasibility and long terms sustainability of both the existing facilities and the proposed new facility and may result in decreased profit margins. This may result in the need to cut down on the number of staff at the existing stations. It is not anticipated, however, that this impact will arise, as the filling station was existing and was only revamped. Thus, it is anticipated that there is sufficient market demand to support all of the existing filling station facilities.		
CUMULATIVE IMPACTS		
Municipal Infrastructure The extra pressure that this development could place on the existing municipal infrastructure for waste and sewage disposal as well as water provisions could be significant when seen together with other developments within the greater municipal area. Litter (if wastes are improperly handled, stored and disposed of). The filling station is existing and the additional impact is not seen as significant.	LOW	No mitigation required

DIRECT IMPACTS				
Potential Impacts	Significance Rating	Mitigation Measures		
All the impacts outlined above will not apply to the No-Go alternative as the status quo will apply and the environment will remain as it is currently. However, it is important to note that the benefits associated with the development will also not materialise, and it must be noted that the majority of the impacts identified for the development were mitigated to a negative low or positive impact once the measures for mitigation were applied, indicating that maintaining the status quo is to lose the opportunity of a beneficial development with negligible environmental impacts.				
INDIRECT IMPACTS				
No indirect impacts were identified during the operational phase.				
CUMULATIVE IMPACTS				
No cumulative impacts were identified during the operational phase.				



4 Decommissioning and Closure Phase

ALTERNATIVE 1					
DIRECT IMPACTS					
Potential Impacts	Significance Rating	Mitigation Measures			
Soil and Groundwater Contamination There is potential for soil and groundwater contamination as a result of accidental spills and leaks from underground storage tanks and associated infrastructure that may have occurred during the operation phase. Hydrocarbon contamination may persist in the subsurface for an extended period before degradation takes place.	LOW	 Residual product must be removed from the storage tanks and associated infrastructure. Storage tanks must be degassed before removal. Excavated soil will be screened with a PID to ensure appropriate handling of impacted soil (i.e. bioremediation at an appropriately licensed facility) or reuse of the soil as backfill onsite. Should it be determine that the site has been impacted and the soil and/or groundwater have been contaminated, a Remediation Action Plan must be developed and implement by appropriately qualified personnel 			
Air Quality Impacts There is potential for the air quality to be impacted through the decommissioning activities that may generate dust through excavation activities. Exhaust emissions produced by construction equipment will be dispersed and it is not anticipated they will cause a nuisance to surrounding landowners.	LOW	 Dust suppression methods, such as wetting or laying straw, should be applied where there are large tracks of exposed surfaces. Stockpiles and soil heaps must be covered with tarpaulins or straw to prevent fugitive dust. All construction vehicles must be appropriately maintained to minimise exhaust emissions 			
<u>Traffic Impacts</u> Vehicle traffic around the site may increase during the decommissioning phase and impact the natural traffic flow around the site. <u>Loss of Employment</u>	LOW	 Co-ordination of movement of vehicles on and off site to reduce risks and prevent congestion on roads in the vicinity of the site. No vehicles or machinery should be serviced or refueled onsite. Peak traffic hours should be avoided. Large vehicle turning must take place onsite and not in the adjacent roads. In cases where activities may obstruct traffic, local traffic officials must be contacted Existing employees may be transferred to another fuel depot if feasible. 			
The closure of the fuel depot will mean that those employed will no longer be required, and their employment may be terminated.		 Employees must be given adequate notice prior to closure, to allow them time to seek alternative employment. Management must supply employees with a letter of recommendation and certificate of skills to assist them with future job applications. 			
Occupational Health and Safety During the decommissioning phase, open excavations, vehicle movement and other construction activities may pose a health and safety hazard to workers. Noise and Vibrations	LOW	 The construction site must be fenced off to prohibit unauthorised access and site access must be strictly controlled. All employees, contractors and sub- contractors to wear appropriate PPE. Open excavations must be clearly marked. All employees, contractors and sub- contractors must comply with the relevant Health and Safety Policy. Appropriate health and safety signage must be displayed on site. The contractor will adhere to local authority by-laws relating to noise control. 			
Vehicles and other machinery required for decommissioning will increase the noise levels during working hours. Decommissioning activities which are likely to cause vibrations include: • gaining access to the underground tanks through the demolition of concrete by excavation machinery; and • entry and use of construction vehicles as well as cranes on site.	LOW	 The contractor will adhere to local aduitionly by-laws relating to holse control. Decommissioning activities will be restricted to regular working hours, i.e. Monday to Friday (08:00 –17:00). Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise-rating limit of 85 dBA is not exceeded. Equipment will be fitted with silencers as far as possible to reduce noise. All equipment to be adequately maintained and kept in good working order to reduce noise. Neighbouring landowners should be informed prior to any very noisy activities e.g., high intensity drilling. A grievance procedure will be established whereby noise complaints can be received, recorded and responded to appropriately. Workers and personnel will wear hearing protection when required. 			

5 Environmental Impact Statement

Taking the assessment of potential impacts into account, an environmental impact statement will be completed. This will sum up the impact and its alternatives may have on the environment (after the management and mitigation of impacts have been taken into account - with specific reference to types of impact, duration of impacts, likelihood of potential impacts and the significance of impact).



PLANNING & DESIGN PHASE (PROPOSAL)

Impact Description	Impact Severity Degree (0-4)	Extent Local / Regional/ National	Duration Temporary / Permanent	Probability it would occur: low / medium/ high	Severity of Impact After Mitigation
Impact on Natural Habitat of fuel storage facilities	0	Local	Temporary	Low	0

CONSTRUCTION PHASE (PROPOSAL)

Impact Description	Impact Severity Degree (0-4)	Extent Local / Regional/ National	Duration Temporary / Permanent	Probability it would occur: low /medium/ high	Severity of Impact After Mitigation
Groundwater and surface water contamination	2	Regional	Permanent	Medium	1
Impact on Natural Habitat	0	Local	Temporary	Low	0
Impact of Noise, Safety and Dust	2	Local	Temporary	Low	1
Traffic Impact	2	Local	Temporary	Low	1
Impact of Labourers	1	Local	Temporary	Low	1
Impact on Cultural Heritage Resources	0	Local	Temporary	Low	0
Waste Management	2	Local	Temporary	Low	1
Economic Impacts This will be a POSITIVE impact	1	Local	Temporary	Medium	1

OPERATIONAL PHASE (PROPOSAL)

Impact Description	Impact Severity Degree	Extent Local /Regional / National	Duration Temporary/ Permanent	Probability it would occur low / medium / high	Severity of Impact After Mitigation
Soil and groundwater contamination	3	Regional	Permanent	High	2
Traffic impact	1	Local	Permanent	Low	1
Air Quality Impacts	1	Local	Permanent	Medium	1
Visual impacts	1	Local	Permanent	Low	1
Noise impacts	1	Local	Permanent	Medium	1
Socio-Economic Impacts Employment opportunities This will be a POSITIVE impact	3	Local	Permanent	Medium	3
Socio-Economic Impacts Impact on existing filling stations	1	Regional	Permanent	Medium	1
Health and safety Impacts	2	Local	Permanent	Medium	1

NO-GO ALTERNATIVE

The applicant commenced with the storage of fuel in containers with a combined capacity of 80 cubic metres or more without Environmental Authorisation. The scope of work was to install tanks below the threshold of 80m³. After the revamp was completed and in preparation to activate the filling station it came to the knowledge of Leslie Community Filling Station (Pty) Ltd that the combined capacity of the underground fuel tanks exceeded the threshold



capacity of 80m³ in that it is 83m³ made up by 2 x 30m³ and 1 x 23m³ tanks. The 1 x 23m³ underground fuel tank will require authorisation as the installation thereof brings the combined capacity above the threshold of 80m³.

The areas impacted on, aboveground as well as underground, is part of an existing developed filling station that has been in operation for decades.

The impact of the commencement of the unlawful activity is insignificant for the following reasons:

The activity is not giving, has not given and will not give rise to any negative socio-economic impacts, any impacts on biodiversity or heritage, nor give rise to any pollution.

In addition to the rectification application the applicant proposes to expand on the existing facilities for the storage of fuel to install new fuel tanks of 2 x 46m³, equating to an additional 92m³ to the existing storage.

It is suggested that to maintain the status quo is not the best option for the macro environment. The authorisation of the unlawfull activity as well as of the new expansion activity will have no new impact on the status quo. However, it is important to note that the benefits associated with the development will also not materialise, and it must be noted that the impacts identified for the development were mitigated to a negative low or positive impact once the measures for mitigation were applied, indicating that maintaining the status quo is to lose the opportunity of a beneficial development with negligible environmental impacts.

6 Impact Summary of the Proposal or Preferred Alternative

For proposal:

The impact rating of the identified environmental aspects revealed that the majority of the impacts will have a LOW significance. It is envisaged that these impacts can be easily mitigated and satisfactorily managed. The management of the impacts identified in the BAR for the construction and operational phases, are outlined in the specialist report recommendations and in the EMPr.

Summary and reasons for selecting the proposal or preferred alternative:

The development proposal is small in scale, and is located within an area which supports the utilisation of the property in line with the approved land use.

The majority of the environmental impacts will be experienced during the construction phase. The majority of these impacts will have a LOW negative significance. It is envisaged that these impacts can be easily mitigated and satisfactorily managed. The management of the impacts identified in the BAR for the construction and operational phases, are outlined in the technical specialist report recommendations and in the EMPr.

It is the opinion of Texture Environmental that there are presently no environmental impacts emanating from the proposed activity that cannot be adequately managed. The management of the negative impacts will require the implementation of the necessary mitigatory measures detailed in the Environmental Management Programme (EMPr, refer to Appendix G) of this report.

21 SPATIAL DEVELOPMENT TOOLS

Spatial development tools used included ArcGIS v.10.2; Google Earth Professional; SANBI's BGIS MapViewer (www.bgis.sanbi.org) and Garmin Maps.



These tools, along with relevant datasets such as vegetation types, rivers, provincial datasets, etc. were used in the desktop assessment as well as the final biodiversity specialist reports. ArcGIS as well as Google Earth Professional were used to produce the detailed maps used in the reports.

The outcome is that these spatial development tools give accurate layouts and positions of important data such as Critical Biodiversity Areas. The tools are also used to create accurate and visual maps showing floodlines, watercourses, sensitive areas, etc.

1 National Priority areas

The study site is not situated within any national priority areas.

National priority areas include formal (national and provincial) and informal (private) protected areas (nature reserves); important bird areas (IBA); RAMSAR sites; National fresh water ecosystem priority areas (NFEPA) and National protected areas expansion strategy (NPAES) focus areas.

2 Mpumalanga Biodiversity Sector Plan (2014)

According to the Mpumalanga Biodiversity Sector Plan (2014), the study site is not within any demarcated Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).

The approval of this application will not compromise the integrity of the existing environmental management priorities for the area.

3 DEA Screening Tool

The Environmental Assessment Practitioner (EAP) consulted the DEA Screening Tool to inform on the environmental sensitivity of the proposed development site. The following summary of the site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only. Refer to the screening report attached as Appendix H3.

The assessment of sensitivities according to the screening tool were as follows:

- Terrestrial Biodiversity Combined Sensitivity: Very High.
- Aquatic Biodiversity Theme Sensitivity: Low.
- Animal Combined Species Sensitivity Theme: Medium.
- Plant Species Combined Sensitivity: Low.

The sensitivities as shown in the DEA Screening Tool assessment were verified (ground-truthed) during site investigations. During site investigations the sensitivities shown by the screening tool were found to be completely inaccurate and outdated. The study site is within a completely transformed built-up, urban area. In reality, the sensitivities for the different categories are 'Low'.

4 Sensitivity mapping

The sensitivity assessment identifies those areas and habitats within the study site that have a high conservation value and that may be sensitive to disturbance

The ecological sensitivity of the study site is determined by combining the sensitivity analyses of both the floral and faunal components. The highest calculated sensitivity unit of the two categories is taken to represent the sensitivity of that ecological unit, whether it is floristic or faunal in nature.

According to the actual analyses there are no "High" sensitivity areas or habitats.



Table: Ecological sensitivity analysis

Ecological community	Floristic sensitivity	Faunal sensitivity	Ecological sensitivity
Transformed	Low	Low	Low

22 THE NEED AND DESIRABILITY OF THE PROPOSED DEVELOPMENT

- As mentioned, the existing filling station came into operation before March 1998 and had a combined capacity of 115 000 litres = 115m³ (cubic metres) of fuel. In 2020, the new owner (Leslie Community Filling Station (Pty) Ltd) revamped the filling station and the old fuel tanks were replaced by new tanks. The contractor was supplied with 2 x 30m³ and 1 x 23m³ underground fuel tanks by the supplier and same were installed. The existing 2 X 30m³ fuel tanks are therefore lawful and below the threshold, but the addition of the 1 x 23m³ caused the unlawful expansion above the threshold capacity of 80m³. Further, the applicant proposes to install an additional 2 x 46m³ new fuel tanks, equating to an additional 92m³ to the existing storage.
- The filling station development is located adjacent to the R29 and is directly accessible. The accessibility of the filling station site is further augmented by exposure to the amount of traffic volumes of both heavy and light vehicles travelling eastbound or westbound on the R29.
- The location of the site adjacent the R29 dual carriage way, accessibility and visibility contribute to the feasibility of the proposed expansion of the filling station.
- The site itself is in the CBD of Leandra town and has been operational as a filling station for decades.
- The existing Filling station contributed to the local economy and the economic impact of the proposed expansion will be positive.
- The additional income generated by the Filling station would benefit the local population. The additional income is expected to benefit the section of the population that is unemployed which comprise a total of 10,8% of the population of Leandra. Any additional income generated in a new development would be welcomed in Leandra and would benefit these low-income households.
- The impact on employment will be positive, though the impact is expected to be small, any contribution to more employment is an achievement in South Africa.
- In conclusion, the economic impact of the Filling station will have a positive impact on the local economy, production, employment and income. This development will contribute to the development of Leandra and the socio-economic improvement of the local population.
- Based on the above benefits to the community the proposed development is regarded as the preferred land use.

In view of the above it is the applicant's opinion that the proposed development can be deemed desirable and should not have a detrimental impact on the surrounding properties or the environment.

23 RECOMMENDATION OF PRACTITIONER

This report is intended to offer an objective assessment of the concerns, which were identified during the basic assessment phase of the study as well as through the technical expertise, which lie within the environmental practitioners. The purpose of this report is to ascertain the impact of the unlawful activity and the proposed expansion, on the environment and the probability of the impacts manifesting themselves. This report will allow the relevant authority the opportunity to make an informed decision regarding the proposed activities.

As mentioned, in 2020, Leslie Community Filling Station (Pty) Ltd revamped the filling station and the old fuel tanks were replaced by new tanks. After the revamp was completed and in preparation to activate the filling station it came to the knowledge of Leslie Community Filling Station (Pty) Ltd that the combined capacity of the underground fuel tanks exceeded the threshold capacity of 80m³ in that it is 83m³ made up by 2 x 30m³ and 1 x 23m³ tanks.

It now transpired that during the initial Covid 19 restrictions, imposed by the regulations relating to Covid 19 in terms of the Disaster Management Act, the availability of underground fuel tanks with a capacity below 20m³ were not available and the contractor was supplied with 2 x 30m³ and 1 x 23m³ underground fuel tanks by the supplier and same were installed.

The significance of the abovementioned construction impact is considered to be LOW.

The remainder of the proposed activities will create impacts of LOW significance. It is envisaged that these impacts can be easily mitigated and satisfactorily managed. The management of the impacts identified in the BAR for the construction and operational phases, are outlined in the technical specialist report recommendations and the EMPr.

It is the opinion of Texture Environmental that there are presently no additional detrimental environmental impacts emanating from the proposed activity that cannot be adequately managed. The management of the negative impacts will require the implementation of the necessary mitigatory measures detailed in the Environmental Management Programme (EMPr), refer to Appendix G) of this report.

Based on the assumption that the mitigation measures will be effectively implemented for the proposed project and its associated infrastructure and that no fatal flaws have been identified to date, it is the opinion of the EAP that this activity should be authorised to proceed to the final stages of decision making.

24 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

An Environmental Management Programme was prepared to detail a plan of action to ensure that recommendations for preventing the negative environmental impacts (and where possible improving the environment) are implemented during the life-cycle of the project. Refer to Appendix G for the EMPr.

25 THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The period for which the environmental authorisation is required is five (5) years.

26 CONCLUSION

In summary the following is recommended for authorisation:

This EIA investigated the entire site. The wider area that was investigated will allow future potential amendments to the EA should it be necessary (at a later stage). Should small changes be done to the layout after authorisation it will not be considered crucial and will not warrant a new application.

The EAP recommends the proposed Alternative to be authorised.

