APPLICATION FOR AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998)

DRAFT BASIC ASSESSMENT REPORT

PROJECT:

PROPOSED STORAGE FACILITY FOR THE STORAGE AND HANDLING OF DANGEROUS GOODS ON ERF 1597 CLAYVILLE EXTENSION 22, CITY OF EKURHULENI METROPOLITAN MUNICIPALITY AREA

Applicant:
Dollis Hill Eiendomme (Pty) Ltd

Date:
March 2022

GDARD Ref No.:
GAUT 002/21-22/E3132

Compiled by:

TEKPLAN
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GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.

2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.

3. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**

4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**

5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.

6. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.

8. An incomplete report may lead to an application for environmental authorisation being refused.

9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.**

10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.

11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.

12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.

13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the of the Environmental Affairs Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the of the Environmental Affairs Branch
Ground floor Diamond Building
11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

Not Applicable

Is a closure plan applicable for this application and has it been included in this report? **No**

if not, state reasons for not including the closure plan.

There is no intention to remove the proposed storage infrastructure (tanks) in the near future.

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity? **Yes**

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person? **Yes**

If no, state reasons for not attaching the list.

Not Applicable

Have State Departments including the competent authority commented? **No**

If no, why?

No comments were received from State Departments during the Public Participation period in which notice was given of the proposed development and associated EIA process. This Draft Basic Assessment Report has been submitted to the relevant State departments and is currently circulating for comments. Any comments received will be included in the Final Basic Assessment Report.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

Clayville Storage Facility for the storage and handling of dangerous goods located on Erf 1597 Clayville Extension 22

Select the appropriate box

The application is for an upgrade of an existing development		The application is for a new development	**X**	Other, specify	

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES	

If yes, describe the legislation and the Competent Authority administering such legislation

Building Plan approval must be obtained from the City of Ekurhuleni Metropolitan Municipality

If yes, have you applied for the authorisation(s)?	**NO**
If yes, have you received approval(s)? (attach in appropriate appendix)	

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	**Department Forestry, Fisheries and the Environment and the Gauteng Department of Agriculture and Rural Development (GDARD)**	**2014**
Environmental Impact Assessment (EIA) Regulations, 2014	**Department Forestry, Fisheries and the Environment and the Gauteng Department of Agriculture and Rural Development (GDARD)**	**2014**
Constitution of South Africa (Act 108 of 1996)	**Department Forestry, Fisheries and the Environment**	**1996**
Occupational Health and Safety Act (Act 85 of 1993)	**Department of Health**	**1993**
National Building Regulations and Building Standards Act (Act 103 of 1977) as amended	**City of Ekurhuleni Metropolitan Municipality**	**1977**
Air Quality Act (Act 39 of 2004)	**Department Forestry, Fisheries and the Environment**	**2004**
National Water Act (Act 36 of 1998)	**Department of Water and Sanitation**	**1998**

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	**The National Environmental Management Act (Act No. 107 of 1998) (NEMA) is the overarching framework for environmental legislation as well as the Regulations for Environmental Impact Assessment. It sets out the principles that serve as a general framework for environmental planning, as guidelines by reference to which organs of state must exercise their functions and guide other laws**

	concerned with the protection or management of the environment. The application takes into account the environmental and socio-economic conditions in compliance with the NEMA principles.
Environmental Impact Assessment (EIA) Regulations, 2014	**According to the EIA Regulations, 2014, a Basic Assessment process should be undertaken for the proposed development.**

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a 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 needs to be informed by the specific circumstances of the activity and its environment.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

1. IDENTIFYING ALTERNATIVES

The IEM procedure (Department Forestry, Fisheries and the Environment) stipulates that an environmental investigation needs to consider feasible alternatives for proposed developments.

This means that for any project that is proposed, there should be a number of possible proposals or alternatives for accomplishing the same objectives or meeting the same need. The developer should be encouraged to consider alternatives that would still meet the objectives of the original proposal, but which would also have an acceptable impact on the environment (referring to physical, biological, socio-economic and aesthetic/visual).

2. REASONABLE RANGE OF ALTERNATIVES

Possible alternatives were identified through discussions with authorities, discussions with I&AP's, reviewing of existing environmental data bases, Specialist studies (i.e. geo-technical investigation) and the client.

Alternatives can be categorized into the following:

- ☐ **Location alternatives;**
- ☐ **Activity alternatives;**
- ☐ **The "no-action" alternative.**

Provide a description of the alternatives considered

No.	**Alternative type**, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")	**Description**
1	Proposal (Preferred Alternative)	**The project consists of the proposed development and related operation of a storage facility for the storage and handling of dangerous goods. The storage will occur in containers with a combined capacity of 300 cubic metres and will consist of the following:** • **100 000 litre diesel** • **100 000 litre petrol** • **100 000 litre LP gas** **The site is located on Erf 1597 Clayville Extension 22 (30 Axle Drive, Olifantsfontein) in the City of Ekurhuleni Metropolitan Municipality.**
2	Alternative 1 (Location alternative)	**LOCATION ALTERNATIVES** **The challenge in selecting a site for the installation of the storage tanks was finding one that can be developed economically without,** • **unnecessarily stressing the environment,** • **inducing large scale negative impacts on adjacent properties, and** • **incurring excessive cost with regards to provision of engineering services.** **The size of the site also had to be sufficient to accommodate the installation of the tanks and other requirements regarding available space for tucks to deliver/collect the product for distribution to clients. Therefor, the suitability of**

the site for the proposed project depended on the following factors:

- **existing engineering services available could be connected to,**
- **enough space for the project (land available),**
- **the condition of the site (geo-technical / hydrological suitability, etc.), &**
- **limited impact on traffic in the area.**

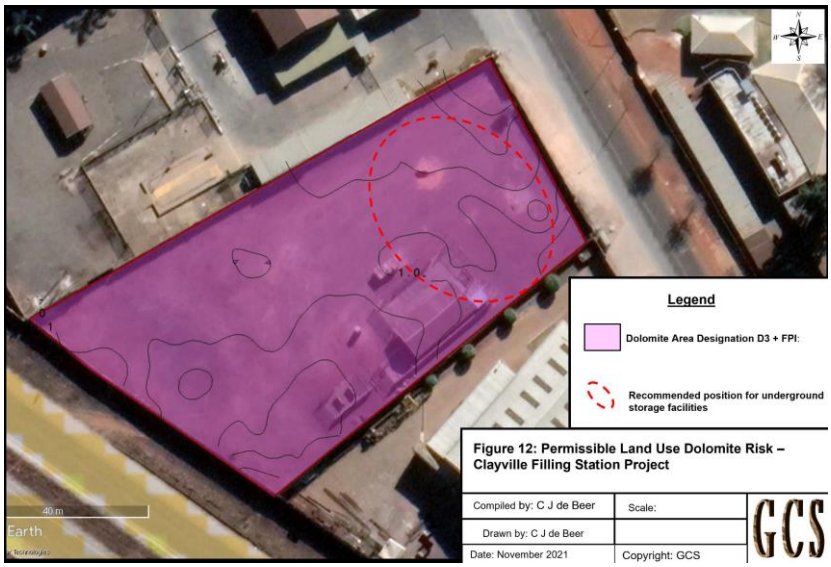
The following contributed to the choice the site:

- **the site was used for similar purposes (depot) by previous owners,**
- **minimum impact on the environment,**
- **acceptable geo-technical soil conditions, and**
- **availability of bulk connector services (water, electricity & access roads),**

The site of application was found to be a suitable option as it conformed to the following criteria:

- ***Availability, accessibility and size of site*: the site falls within the Olifantsfontein industrial area on the premises already previously used for similar purposes (storage of dangerous goods i.e. fuel, gas). The site is large enough for the proposed installation of the storage tanks and associated infrastructure as well as other requirements regarding available space for the tucks to deliver/collect the products.**

- ***Acceptable geo-technical soil conditions:* No fatal flaws as from an engineering geological perspective were identified during the investigation. The site is deemed suitable for the proposed development as from a geotechnical perspective, provided that the necessary design precautionary measures are implemented as outlined in the report (see Geotechnical and Dolomite Study Report - Appendix G). It was recommended that the underground fuel storage tanks planned for the depot, be installed in the area defined in Figure 12 of the Report. The soil properties in this area is better suited for the installation than that of rest of the site.**



It will however not be possible to place the tanks in the north-eastern part of the property as the area will be used by trucks for the entrance and exit of the site. The geo-technical specialist confirmed that recommendation to place the tanks towards the north-eastern part of the site was based on the fact that the soil profile in that area is slightly easier to excavate than the rest of the site. The gravimetric survey and probe drilling indicated that there are no sinkholes present on the site and <u>the whole site</u> is also suitable for placement of the underground storage tanks from a dolomite stability perspective (see Addendum to Geotechnical and Dolomite Study Report - Appendix G).

- ***Availability of bulk connector (engineering) services (water, electricity & access roads):* The site is located in the Olifantsfontein industrial area and all engineering services are already available on site.**

- ***Environmental impact:* The site proposed for the installation of the storage tanks consists of a cleared area. There are no remaining natural vegetation on the site and this impact is therefore deemed to be of low significance.**

Alternative sites need only be considered in cases where severe disturbance of ecological or bio-physical sensitive attributes might take place or where human health and safety will be forfeited.

		From assessments conducted by the respective experts it does not appear as if any "fatal flaws" will result from the establishment and conducting of the proposed activities on the site of application. Alternative sites for the proposed development therefore need not to be considered other than the location of the tanks to be installed on the premises as indicated in the image above.
3	Design/Activity (Preferred Alternative)	**ACTIVITY/DESIGN ALTERNATIVES** **Due to the fact that no sensitive biological aspects will be destroyed during construction, "activity/design alternatives" need not be considered with regards to the mentioned aspects in terms of the environment.** **With regards to operation of the intended activities (storage tanks), alternatives ways of conducting the activities will be identified using applicable standards for conduct e.g. SABS codes, as guidelines.** **Any potential oil leaking from delivery trucks or fuel spilled when offloading/collecting the product, will be collected in an oil separator before the water is disposed of in the municipal sewerage network. This will ensure that no pollution of underground water takes place (See location of oil separator indicated in attached layout plan – Appendix A).** **The need of the proposed development with regards to water, electricity, sanitation, etc. can be met by making use of the existing engineering infrastructure of the Ekurhuleni Municipality already available on site.** **Passive solar design should be investigated to keep the buildings warm in winter and cool in summer. Special attention must therefore be given to orientation, shading and windows, circulation and designing adequate thermal mass. All devices installed should be energy efficient in order to lessen the demand for electricity.** **An alternative to lessen the volume of water used by the intended facilities, would be to irrigate gardens/landscaped areas (if any) during the night or during the cooler parts of the day.** **Appropriate indigenous plants should be used for landscaping as an alternative to exotic garden species. Indigenous species have lower water demand requirements than exotic introduced species.**

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

N/A

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

	Size of the activity:
Proposed activity ***(Total environmental (landscaping, parking, etc.) and the building footprint)***	**0,5ha / 5198m²**
Alternatives:	
Alternative 1 (if any)	m²
Alternative 2 (if any)	
	Ha/ m²

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	m/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

	Size of the site/servitude:
Proposed activity	**0,5ha / 5198m²**
Alternatives:	
Alternative 1 (if any)	m²
Alternative 2 (if any)	
	Ha/m²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road? **YES**

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Existing entrances to the property in Axle Drive will be used.

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	YES	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?	YES	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated | **0** | Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);

- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Instructions for completion of Section B for linear activities

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
2) Indicate on a plan(s) the different environments identified
3) Complete Section B for each of the above areas identified
4) Attach to this form in a chronological order
5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route | **0** | times

Instructions for completion of Section B for location/route alternatives

1) For each location/route alternative identified the entire Section B needs to be completed
2) Each alterative location/route needs to be clearly indicated at the top of the next page
3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives | **0** | times (complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B – Section of Route | **0** | (complete only when appropriate for above)

Section B – Location/route Alternative No. | **0** | (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description: (Including Physical Address and Farm name, portion etc.)	**The site is located on Erf 1597 Clayville Extension 22 (30 Axle Drive, Olifantsfontein) in the City of Ekurhuleni Metropolitan Municipality.**

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:	**Latitude (S):**	**Longitude (E):**
	25,973083°	**28,227750°**

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
• Starting point of the activity	°	°
• Middle point of the activity	°	°
• End point of the activity	°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	J	R	0	0	3	6	0	0	0	1	5	9	7	0	0	0	0	0	0
ALT. 1																					
ALT. 2																					
etc.																					

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	

4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

	Plain	

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)	NO
Dolomite, sinkhole or doline areas	NO
Seasonally wet soils (often close to water bodies)	NO
Unstable rocky slopes or steep slopes with loose soil	NO
Dispersive soils (soils that dissolve in water)	NO
Soils with high clay content (clay fraction more than 40%)	NO
Any other unstable soil or geological feature	NO
An area sensitive to erosion	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any caves located within a 300m radius of the site(s) NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any sinkholes located within a 300m radius of the site(s) NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

If any of the answers to the above are “YES” or “unsure”, specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)? **According to the Environmental Screening Report a part of the site has a moderate-high and another part has a low-moderate agriculture theme sensitivity. The site is however located in a proclaimed industrial township used for such purposes for a long time already.** NO

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 0	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) % = 0	**Building or other structure % =10**	**Bare soil % = 90**

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site [redacted] NO

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) 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. [redacted] NO

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site? [redacted] NO

If YES, specify and explain:

Was a specialist consulted to assist with completing this section [redacted] NO

If yes complete specialist details

Name of the specialist:			
Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

If YES list the specialist reports attached below

Signature of specialist: _____ Date:

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	[redacted]			
[redacted]			9. Medium to high density residential	10. Informal residential
[redacted]	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	[redacted]	18. Church	19. Education facilities	25. Major road (4 lanes or more)[N]
[redacted]				
Other land uses (describe):	35. Public Garage/Filling Station			

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

NORTH

	1	**1**	**14, 15**	**15**	**15**
	9, 10, 25	**9, 10, 25**	**14, 15, 35**	**15, 16**	**14, 15, 16**
WEST	**9, 10, 19**	**9, 10, 19, 25**		**15, 16**	**14, 15, 16** EAST
	9, 10	**9, 19, 25**	**12, 14, 15**	**15,16, 25**	**14, 15, 25**
	9, 10, 18, 19	**9, 10**	**9, 10, 12**	**12**	**12, 25**

SOUTH

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached YES
If yes indicate the type of reports below

A Geotechnical and Dolomite Study was undertakan (see Appendix G) and made the findings/recommendations:

- The site is underlain by reworked residual transported soil as well as chert and dolomite of the Malmani Subgroup. A north south trending syenite dyke traverse the site.
- Two soil profile has been identified through the trial pit investigation:
  - o Profile1: Fill and reworked and weathered chert and dolomite and
  - o Profile 2: Thicker reworked weathered chert and dolomite
- The percussion borehole drilled at the local gravimetric low did not intersect a sinkhole or any significant indication that a collapse structure or is present on the property.
- No groundwater were intersected to a depth of 34m.
- Excavatability across the site is soft to intermediate, the western portion of the site has a soft excavatability which terminates at 1.5m. The eastern portion of the site is soft to at least 2.8m. The potential for collapse of side walls of deep excavations is moderate.
- Dry conditions were experienced in the trial pits. No seepage was detected.
- Construction materials should be sourced off site.
- No Present or past mining activities influence the site.
- The geotechnical risk classification for the whole site is A2H2 and the NHBRC Classification is P(H1C1).
- The inherent risk class for the site is Class 4 due to the medium risk for small and medium sinkholes and low risk for large sinkholes.
- The Dolomite Area Designation for the site is D3 and footprint investigations are required. The site investigation conducted is adequate in this regard.
- The land use classification of the site is **DEVELOPABLE with tolerable risk with respect to sinkhole or doline formation for a C3 commercial land use.**
- **From a geotechnical perspective the site is suited for the proposed development.**

9. 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.

The proposed site is mainly surrounded by the Olifantsfontein/Clayville Industrial area to the east and the Tembisa residential areas to the west and south. The Phumlani Mall Shopping Centre is located to the south of the site.

Tembisa was not historically allowed to create employment centres within its area, so almost all of its residents commute daily to their employment destinations in places such as Kempton Park, Olifantsfontein, Pretoria, Johannesburg and Midrand. The northern part of Tembisa is connected to Midrand in the west by the R562 Route (Oilfantsfontein Road). The R562 forms the boundary between Thembisa and Olifantsfontein (Clayville).

It is foreseen that most of the product will be sold in the Tembisa area where there is a shortage of LP Gas and fuel.

There is also a high demand for cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.

Job opportunities will also be created during the construction and operation phases of the project.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site-

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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?	**NO**

If YES, explain:

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

Not Applicable.

Will any building or structure older than 60 years be affected in any way?	**NO**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)? If yes, please attached the comments from SAHRA in the appropriate Appendix	**NO**

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?	**YES**	
If yes, has any comments been received from the local authority?		**NO**

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

A copy of this Draft Basic Assessment Report (BAR) was submitted to the City of Ekurhuleni Metropolitan Municipality to comment on. Any comments received will be included in the final BAR.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?		**NO**

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

A copy of this Draft Basic Assessment Report (BAR) was submitted to the Department of Water & Sanitation, Provincial Heritage Resources Authority – Gauteng and South African Heritage Resources Agency to comment on. Any comments received will be included in the final BAR.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued as required in terms of the regulations

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from interested and affected parties

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 – Comments and Responses Report

Appendix 7 – Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 – Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
4) Each alterative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives | **0** | times (complete only when appropriate)

Section D Alternative No. | 0 | (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? **YES**

If yes, what estimated quantity will be produced per month? **Approx. 100m^3**

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

Limited construction waste will be generated during the construction phase. Construction waste (i.e. excavated soil (if any, not able to be reused on site) and any leftover cement) will be transported to the nearest suitable registered waste disposal site.

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

Construction waste (i.e. excavated soil and any leftover cement) will be transported to the nearest suitable registered landfill site.

Will the activity produce solid waste during its operational phase? **YES**

If yes, what estimated quantity will be produced per month? **Approx. 2m^3**

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

The storage facility will not produce any solid waste. The limited solid waste that will be produced during the operational phase will consist of "house hold related solid waste" i.e. cans, plastic bags & paper from employees at the site. Waste will be kept in litter bins on site. The municipality is responsible for removal of "house hold" related solid waste within its proclaimed township areas. Waste will be removed on a weekly basis.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? **NO**

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

A licensed landfill site will be used to dispose of construction waste. The waste generated during the operational phase will not be a large volume and it will feed into the municipal waste stream.

Note: 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, 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 relevant legislation? **NO**

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? **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.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

The development will produce limited waste. Waste will mainly consist of "house hold related waste" generated from employees on site and those working at the office. The municipality is responsible to remove waste on a weekly basis. Office waste (i.e. paper, plastic, metal cold drink cans) will be stored separately in bins and kept for recycling.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? **NO**

If yes, what estimated quantity will be produced per month?
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

Will the activity produce any effluent that will be treated and/or disposed of on site? **NO**

If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility? **NO**

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Liquid effluent (domestic sewage)
Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? **YES**

If yes, what estimated quantity will be produced per month? **Approx.3m^3**
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? **NO**
Existing sewerage reticulation system of the municipality is available on site.

Will the activity produce any effluent that will be treated and/or disposed of on site? **NO**

If yes describe how it will be treated and disposed off.

Emissions into the atmosphere
Will the activity release emissions into the atmosphere? **YES**

If yes, is it controlled by any legislation of any sphere of government? **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 emissions in terms of type and concentration:

Fuel vapour emissions are associated, on local extent, with the dispensing of fuels. It is proposed that operational phase mitigation measures must be implemented to reduce the potential occurrence and volume of emissions disposed of into the atmosphere. Fuel vapours from the facility can be managed by implementing the following:
Minimising vapour / leaks
• Fuel nozzles should be fitted with cut off mechanism once the back pressure reached a certain level indicating a full tank.
• Caps must be appropriately sealed.
• Vent pipes must be constantly monitoring to ensure that they are working effectively.

2. WATER USE

Indicate the source(s) of water that will be used for the activity
municipal

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: liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix
Does the activity require a water use permit from the Department of Water Affairs? **NO**

If yes, list the permits required

If yes, have you applied for the water use permit(s)?
If yes, have you received approval(s)? (attached in appropriate appendix)

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Municipality. Municipal power supply is already available and being used on site.

If power supply is not available, where will power be sourced from?

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

A municipal electricity connection is already available and used at the site. The Applicant will make use of the most energy efficient components for the facility.

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

Passive solar design will be investigated to keep buildings warm in winter and cool in summer. Special attention must therefore be given to orientation, shading and windows, circulation and designing adequate thermal mass. All devices installed should be energy efficient in order to lessen the demand for electricity.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

The following comments were received during the public participation process from Royale Energy (Represented by van der Walt Attorneys):

- ***A facility similar to the facility you have applied for, are adjacent to the proposed facility***
- ***Your facility will render financial loss to our company***
- ***Our facility will suffer damager and loss beyond economical repair***
- ***Our facility has similar offerings and have been established for more than 5 years at the property***
- ***We were not informed of any re-zoning of the property***

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)
(A full response must be provided in the Comments and Response Report that must be attached to this report):

Response to concerns raised:

- ***A facility similar to the facility you have applied for, are adjacent to the proposed facility:***
  The proposed facility is for the <u>storage</u> of Petrol, Diesel & LP Gas and is <u>not</u> for the direct retail to the public/clients. The purpose of the proposed facility is for storage of the products and then to distribute from the site where the product is needed. The adjacent Royale Energy site does not have whole sale LP Gas facilities. The prosed new facility will store a different product than Royale Energy and it is therefor not possible for the applicant to store his product in the tanks of Royale Energy or for Royale Energy to store their product at the proposed new storage facility.
- ***Your facility will render financial loss to our company &***
- ***Our facility will suffer damager and loss beyond economical repair:***
  It is unlikely that the proposed new storage facility will render financial loss/damage to Royale Energy as the facility is only for the storage of the product (different product) from where it will be distributed.
- ***Our facility has similar offerings and have been established for more than 5 years at the property***
  The proposed facility is for the <u>storage</u> of Petrol, Diesel & LP Gas and is <u>not</u> for the direct retail to the public/clients. The purpose of the proposed facility is for storage of the products and then to distribute from the site where the product is needed. The adjacent Royale Energy site does not have whole sale LP Gas facilities. The prosed new facility will store a different product than Royale Energy and it is therefor not possible for the applicant to store his product in the tanks of Royale Energy or for Royale Energy to store their product at the proposed new storage facility.
- ***We were not informed of any re-zoning of the property***
  A rezoning application wasn't required. The application is zoned Industrial 1 and was used by previous owners for similar purposes (depot).

A copy of the Draft Basic Assessment Report have been submitted to the following I&AP's to comment on:

- **City of Ekurhuleni Metropolitan Municipality**
- **Department of Water & Sanitation**
- **Provincial Heritage Resources Authority – Gauteng**
- **South African Heritage Resources Agency (SAHRA)**
- **SASOL**
- **Royale Energy (Represented by van der Walt Attorneys)**

Comments received from Interested and Affected Parties will be included in the Final Basic Assessment Report.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The methodology adopted in the compilation of this document is that of an Environmental Impact Assessment (EIA) in accordance with the Environmental Impact Assessment Regulations, 2014 read with section 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

An environmental impact analysis must always include some statement, definition and delineation of specific environmental 'problems'. Some judgements necessarily have to be made during the steps of predicting, analyzing, and judging, environmental impacts – therefore this impact assessment has taken into account the following parameters during evaluation of the potential impacts that might result from the proposed development:

- **the geographical area/extent of the impact (e.g. local, immediate, regional or national),**
- **status & intensity (positive (beneficial) or negative (detrimental)),**
- **significance (an impact of low significance will have only a limited effect on the environment, whereas an impact of high significance will have a major impact on the environment),**

- **The probability of an impact (for example "definite', "highly probable", "probable" or "improbable"), and**

- **The duration of an impact.**

In order to undertake the identification of the key issues (significant potential impacts) that might result from the proposed development the writer relied on the following;

- **Inputs from interested & affected parties,**
- **Inputs from specialists,**

METHODOLOGY FOR ASSESSMENT OF IMPACTS

This section examines *key issues/impacts* which may be predicted to occur as a result of the proposed development. Where necessary, proposals for mitigation or optimisation of an impact will be noted. A brief discussion of the impact and the rationale behind the assessing of its significance is also included in this section.

The team of consultants/specialists identified potential issues and reached consensus regarding the significance and duration of potential negative and positive impacts. During the assessment of impacts, the following was taken into account:

- **the extent,**
- **the duration,**
- **the intensity (positive/detrimental and minor/moderate/major),**
- **the probability, and**
- **the significance of impacts.**

Each impact was assessed according to the project stages, viz;

- **site preparation/construction, and**
- **operation.**

An impact of "low significance" will have only a limited affect on the environment, whereas an impact of "high significance" will have a major impact on the environment.

A "positive impact" is one which enhances the existing environment, whereas a "negative impact", is one which degrades the environment. Where impacts are of high or low significance, the degree of probability has been evaluated and includes the terms "definite", "probable", "possible" or "improbable".

The assessment of the effects of an impact hereunder assumes that mitigation measures have been implemented. If this is not done the range of negative impacts will have a greater effect and the expected positive impacts will not be enhanced.

The duration of an impact is assumed to be short term (less than one year); medium term (one to three years) and long term (beyond three years). Sensitive or vulnerable environments or features as well as secondary and cumulative impacts were also taken into account during evaluation of impacts.

Interested and affected parties were also consulted and their concerns were addressed as potential issues. Impacts that may arise during the different stages of the proposed project lifecycle are addressed below in this section and the mitigatory measures are also recommended in the attached Environmental Management Programme.

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Primary impact component	Secondary impact component:	Potential impact:	Significance rating of impacts (positive or negative):	Spatial influence:	Duration:	Proposed mitigation:	Significance rating of impacts after mitigation:
Natural environment	Biological environment (vegetation and fauna)	The destruction of natural vegetation and temporary displacement of fauna from the area during initial investigations, due to induced vehicular traffic e.g. drilling rigs, surveyors' vehicles etc.	Probable, Low.	Whole site.	Short to medium term.	The site proposed for the installation of the storage tanks consists of a cleared area. There are no remaining natural vegetation on the site and this impact is therefore deemed to be of low significance. Avifauna (Birds) may be disturbed due to noise and activity. The immediate proximity of other available habitat means that this impact is of low significance.	Probable, low.
Social/ natural environment	Community resources – legal/political/heritage considerations	Expectations amongst adjacent properties that the development will impact on their privacy	Probable, Low.	Immediate	Long term	The privacy of adjacent properties should be respected. The premises were used for similar purposes in the past. The adjacent property is used for as a filling station. Adjacent property owners are used to all the activities associated with the surrounding industrial area.	Probable, Low
Social/ natural environment	Community resources – legal/political/heritage considerations	Limitations on development such as existing servitudes, right of ways, mineral rights, heritage sites etc.	Moderate to High, Definite	Immediate	Long Term	Investigations regarding the above limitations on development must be conducted before the construction process starts. Any legal rights pertaining to the site must be taken into consideration. All necessary approvals from authorities should be obtained and servitudes must be plotted prior to finalization of the site development plan. The SASOL gas pipeline servitude is indicated on the Layout plan.	Moderate to High, Definite
Land use and landscape character	General – aesthetic quality	Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape	Moderate, Possible.	Local	Medium Term	Investigate the surrounding area in terms of adopted architectural styles and customs. The proposed development should as far as possible blend in with these styles. The surrounding area consists of industrial uses. Change of land use from vacant land to a fuel and LP gas storage facility will occur. The site was used for similar purposes in the past.	Probable, Low
Social environment	Community social organization - Distribution of resources	High positive expectations regarding employment opportunities	Moderate to High, Probable	Local and Sub-Regional	Medium to long Term	Local employment and procurement should take place as far as possible. Contractors should be required to make use of local labor and suppliers as far as possible	Moderate to High, Definite

Construction Phase Impacts							
Natural Environment	Earth/land – compressive strength of soils	Construction impacts on soils (upsetting of soil horizons through groundworks and/or compaction by vehicles)	Low to moderate, Definite.	Construction site and immediate adjacent areas	Long Term	Selective stripping of topsoil, subsoil and overburden should take place. Stockpiling of earth (separately) should take place and be returned for backfilling in the correct soil horizon order. On all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not impede surface water runoff. Control of all earthworks etc. is essential. Potential contaminants such as fuel stores to be carefully sited with adequate spillage containment measures i.e. bund walls. Contractors' conditions of contract should make provision for the stripping and stockpiling of topsoil for later re-use. Topsoil is constituted by at least the top 150 mm of the natural soil strata and includes grass, roots and other organic matter. Areas to be cleared of topsoil should preferably only be those that will be covered by paving, roads, structures and areas for material/equipment storage.	Low, Definite.
Natural environment	Water (surface) – quality of surface water	Surface water contamination	Low to Moderate, Possible	Site and nearby drainage/storm water outflow areas.	Short to Medium Term	Adequate sanitary facilities and ablutions must be provided for construction workers. The potential for the pollution of surface water resulting from the construction activities is low. All collected storm water should be disposed off via the municipal system.	Low. Possible
Natural environment	Water and Soil pollution	Poor management of construction material and waste	Medium, Possible	Local	Medium to Long Term	Controlled use and or storage of all fuels and chemicals during construction is recommended. Adequate fuel containment facilities should be used. Adequate sanitary facilities and ablutions must be provided for construction workers. Building waste (i.e. concrete etc.) should be used as fill material at the proposed project being developed. The potential degradation of groundwater and soils are of concern – however it is unlikely to result from construction activities. Effects on the groundwater quality resulting from the envisaged development will be discussed in the section *on "Operational phase impacts"*	Low-Medium, Possible

Natural environment	Earth/Land-erosion	Soil erosion due to vegetation/site clearing.	Low, Possible	Construction site and areas proposed for development	Medium to Long Term	When soil is cleared, management techniques to prevent water and wind erosion should be employed (e.g. seeding of topsoil and subsoil and stockpiles, brush packing and contour channels/berms) to reduce water velocity and divert surface water runoff downslope. The area in general possesses a low to medium risk for erosion (especially if grass cover is removed for construction purposes). Congregation of storm water should be avoided. During the planning and design phases of building/construction works, provision should specifically be made for erosion control and storm water management (e.g. protection of storm water discharge points, limiting the concentration of storm water and reducing the velocity of discharge).	Low. Possible
Natural Environmental	Biological Environment-vegetation	Damage to flora due to site clearing	Low, Definite	Site and immediate adjacent areas	Short term threat but damage permanent	The site proposed for the installation of the storage tanks is cleared of all vegetation. There are no remaining natural vegetation on the site and this impact is therefore deemed to be of low significance. Potential for the significant alteration of habitats is low, due to the disturbed state of the site.	Low
Natural Environment	Biological environment - vegetation	Plant collection, utilising of trees for firewood, etc. by construction workers from surrounding areas	Low, Possible	Construction site and immediate surrounding areas	Short to medium term	Effective site control and monitoring by site engineer should take place to insure that workers don't cut down any trees from the surrounding areas. No fires should be allowed on site except in designated areas. Access to site should be controlled.	Low, Possible
Natural Environment	Biological environment – natural communities	Loss of habitat where the development will be located	Low, Possible	Local	Medium term (Permanent loss of habitat)	The site is already disturbed and it located in a build-up area (Olifantsfontein/Clayville industrial area).	Low
Natural Environment	Biological environment - animals	Hunting and capture of birds and other fauna by construction workers (from surrounding areas	Low, Possible	Site and Local	Short Term	Capture or snaring of birds or other fauna must be strictly prohibited on site (and surrounding areas) - especially w.r.t. contractors employees. Birds might be snared - this must be prevented. Fauna (especially avifauna) may be temporarily displaced from the area during construction due to the noise and activity. The immediate proximity of other available habitat means that this impact is of low significance.	Low, Possible
Land use and Landscape character	General aesthetic quality	Visual impact of construction activities and infrastructure installation	Moderate to High, Definite	Local	Medium Term	The property is surrounded by a brick wall which will assist to lessen the visual impact of construction activities. It should be attempted to let all visible infrastructure blend in with the	Low-Moderate, Definite

						surrounding landscape, either through building shape, painting and/or staining.Change of land use from a mostly vacant stand to a construction site will occur.	
Existing pollution, risks and/or hazards and health & safety	Existing pollution/environmental degradation – noise, vibration & lighting	Impact of construction noise on adjacent properties.	Moderate, Possible	Construction site and immediate adjacent areas	Medium Term	Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to 07h00 and 18h00 (Mondays to Saturdays only). The surrounding area consists of an industrial area. Maintenance of construction vehicles and equipment should take place and fitted with noise suppression equipment	Low-Moderate, Possible
Existing pollution, risks and/or hazards and health & safety	Existing pollution/environmental degradation – dust	Impact of air pollution – mainly dust	Moderate/ Possible	Construction site and immediate adjacent areas	Short to medium term	Damping down of cleared areas should take place. Control measures such as wet-suppression (watering) should be implemented to reduce dust arising from construction activities. Such requirements should be included into the contracts of the individual contractors that will be performing construction activities. The legal requirements of the Atmospheric Pollution Provision Act (Act 45 of 1965) and limitations set by the National Air Pollution Advisory Committee must be adhered to. Activities that are to be conducted on the site of application, must ensure effective management so as to minimise air pollution, both during the construction and operational phases. Work-areas (re-fueling/loading area and access roads) will be paved to prevent dust during operation of the facility.	Low-Moderate, Possible
Existing pollution, risks and/or hazards and health & safety	Risks & hazards – Effects in the workplace	Potential injury to construction workers	Moderate, Possible	Local	Short and medium term	Implementation of safety measures and work procedures and first aid facilities. Medical screening of employees should take place.	Low-Moderate, Possible
Social Environment	Cultural resources	Damage to heritage resources due to construction.	Low to moderate, Probable	Immediate adjacent areas	Short to medium term	If any heritage resource are discovered during construction (e.g. during excavations), construction should stop and the relevant authority should be notified.	Low to moderate, Probable
Social Environment	Direct project inputs- Public safety	Unsocial activities at the construction site (e.g. crime)	Moderate, Possible	Site and immediate surrounding areas	Short term	The implementation of security at the construction camp/material laydown area is necessary. Only labourers and authorised persons should have access to construction	Low-Moderate, Possible

						camps/material laydown areas. Unfenced construction camps/material laydown areas may present a greater security risk such sites should be fenced/secured. Prostitution, drinking, crime, vandalism etc. generally only arise where labourers are away from home. If the majority of the labour force is recruited locally, the incidence of prostitution and other un-social activities could be reduced. Temporary housing of construction workers on the site should be limited.	
Infrastructure and community services	Infrastructure services – transport (local roads)	Construction traffic and access.	Moderate, Probable	Local	Medium Term	Construction trucks/vehicles should avoid traveling unnecessarily through any residential areas or over private land. Construction vehicles will be moving into and out of the site, onto public roads, thereby potentially causing congestion, poor traffic flow and poor access. Adverse impacts from construction traffic can be minimized through good planning by the contractor and controlled site activities. Construction routes should be clearly defined and sign posted. Working hours to be controlled by site engineer. No construction vehicles may be parked on public roads	Moderate, Probable
Socio Economic environment	Direct project inputs - employment	Temporary employment creation	High, Definite (Positive)	Local and sub-regional	Short to medium term	Where appropriate, the use of labour intensive construction methods should take place. Where possible, training of labour should take place to improve benefits to individuals beyond this project. Use of emerging contractors should take place where possible.	High, Definite
Socio Economic environment	Indicators of well being – access to resources	Supplies and materials (local procurement)	High, Definite (Positive)	Local, regional and national	Short to medium term	Sourcing and purchase of supplies and materials locally or within the region (whenever possible) should take place.	High, Definite
Operational phase impacts							
Natural Environment	Pollution to land and water	Waste generated resulting in pollution of land(soil) and water (quality decrease)	High, Possible	Site and local	Long term	Waste prevention, waste minimisation and impact minimisation: Management and intervention must focus on the physical, social and institutional factors which contribute to the water quality effects. Management should focus on the processes that result in the production and delivery of waste at the storage facility and on the relevant waste streams (sewage, grey	Moderate, Possible

						water, stormwater and solid waste). Care should be taken to maintain and operate services effectively. The existing services of the municipality will be used.	
Natural Environment	Pollution to land and water	Leakage from fuel storage tanks resulting in pollution of land(soil) and underground water	High, Possible	Site and Local	Long term	All containment structures for polluted water should be lined to prevent seepage and pollution of groundwater. Daily reconciliation of the volumes of fuel should be done to ensure early detection of a possible leak. Water samples from an appropriately located borehole should be monitored periodically during the construction and operational phases of the proposed development, in order to establish whether the quality of subterranean water is being affected at all. Appropriate measures should be implemented to establish the sources of pollution and the necessary remedial actions should be taken to eliminate such sources. Leakage detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant authorities within 14 days and the necessary remedial action taken. Water is undrinkable when petroleum hydrocarbons exceed 10ppm/mg/l. To prevent contamination of soils and groundwater, all tank and pipework installations should be done in accordance with the SABS 10089-3 code (The installation of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations).	Moderate-High, Possible
Natural Environment	Pollution to land and water	Contaminated run-off from the re-fueling area can cause pollution of soils and surface water	High, Possible	Site and Local	Long term	Occasional small spillages onto the paved re-fuelling area where fuel is being off loaded/re-loaded will occur from time to time. This may lead to contamination of the surrounding subsoils along the periphery of the paved areas. Groundwater can also potentially be contaminated by spillages at the pump island. If washings from the re-fuelling area containing VOC's and hydrocarbons reach natural drainage courses, it could cause pollution, this should be avoided through the installation of suitable interceptors. The following precautionary measures are therefore recommended: • Sealing/paving of the re-fuelling area and other areas where fuel products are handled to prevent infiltration of petroleum	Moderate-High, Possible

						products into the soil underlying the site. • Any potential oil leaking from delivery trucks or fuel spilled when offloading/collecting the product, will be collected in an oil separator before the water is disposed of in the municipal sewerage network. This will ensure that no pollution of underground water takes place (See location of oil separator indicated in attached layout plan – Appendix A). The Storm water draining from these surfaced areas will be collected in the sealed sump to be treated or removed. • Preventative measures should be installed to prevent the storm water or other liquids draining into the natural soil. • Surface runoff and runoff volumes must be calculated and proper separation facilities installed. • The free product and polluted water must be removed from site by a licensed contractor.	
Existing pollution, risks and/or hazards and health & safety	Existing pollution/environmental degradation – noise	Impact of noise on adjacent properties.	Moderate, Possible	Site and immediate areas	Long term	Excessive noise from the labour force and truck drivers delivering/loading fuel/gas should be avoided. The surrounding area is currently exposed to ambient traffic noise and noise from other activities, including the neighboring filling station, due to the fact that the site is located in the Olifantsfontein/Clayville industrial area.	Low, Possible
Socio-economic environment	Infrastructure – roads, sanitation treatment plant etc.	Added pressure on engineering infrastructure and local services	Low to moderate, Possible	Immediate	Long term	The site is located on an existing industrial stand in the Olifantsfontein/Clayville industrial area and is already connected to the existing services (water, electricity & sewerage).	Low, Possible
Social Environment	Risks and/or hazards and health & safety	Increase of atmospheric emissions (i.e. carbon monoxide concentrations).	Moderate to High, Possible	Site and local	Long term	Leakage detectors and odor detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant authorities within 14 days and the necessary remedial action taken. Carbon monoxide prevents blood from circulating oxygen through the body and can cause numerous health disorders. Always check caps, flanges and sealed connections for any leakages. Check that the vent pipes are not blocked. The impact of vent gases from vent	Moderate, Possible

						pipes and the interceptor chamber is minimised through positioning of the vent pipes at a point remote form all buildings and neighbouring property boundaries. Supervision of fuel deliveries should take place. This impact is deemed potentially significant. Increased VOC levels can also induce negative health effects on humans.	
Socio-economic environment	Property value	Impact on adjacent property values that might result from the presence of the proposed development	Moderate, Possible	Local	Long term	The impact on adjacent property values is not foreseen to be significant as the site is located in an industrial area with other existing diesel depots/filling stations occurring in the area.	Low-Moderate, Possible
Infrastructure and community services	Infrastructure services – transport (local roads)	Induced traffic could affect existing pedestrian and vehicle traffic patterns (i.e. cause congestion).	Low-moderate, Possible	Local	Medium term	Entrances to the site should be designed according to traffic engineering specifications and be approved by the relevant authorities. Human safety should be a high priority for the developer. The significance of this potential impact is deemed to be relatively small due to the fact that entrances to the site already exists and is already being used. There is also already heavy vehicle movement in the surrounding area during most hours of the day. The entrances to and exits from the site should be designed to facilitate effective traffic flow. Dedicated access routes must be identified for delivery vehicles. All drivers of vehicles involved in delivery activities should adhere to traffic regulations.	Low-moderate, Possible
Land use and landscape character	General-aesthetic quality	Changes to the visual quality of the landscape	Low-moderate, Possible	Local	Medium Term	Colour choices and patterns of buildings (i.e. office building) should be timeless in that they should not become outdated. Preferably colours associated with the natural surroundings e.g. brown, grey green, buff or olive should be used where possible. Colours should be matt, not glossy so as to reduce reflection and glare from surfaces. **Building/structure form:** Building form should be broken by roof overhangs and steps in facades. This will create shadow lines which, in turn, assist in the mottling or breaking up of the visible building form. The visual quality of the fuel storage and associated infrastructure is typically low and is characterized large open and distrubed areas. **Lighting:** Selective and sensitive location and design of the lighting requirements for the facility is a	Low, Possible

						necessity. A possible alternative is to reduce the height at which floodlights are fixed and to identify zones of high and low lighting requirements. Lights should be focussed inward rather than outward. **Landscaping**; Denuded areas must be rehabilitated as soon as possible after the completion of construction.	
Socio Economic development	Demographic aspects	Investment of knowledge and profits into the community and increase in skills level of the population	High, Possible (Positive)	Local	Long term	Local people will be appointed to work at the facility (operating of the facility and general cleaning of the site) which leads to job creation. Secondary uses employment will also be created e.g. for the maintenance of infrastructure/services.	High, Possible
Socio Economic Environment	Financial implications	Job creation and new economic opportunities (long term) (e.g. artisans for maintenance of fuel/gas storage infrastructure and associated buildings)	High, Definite (Positive)	Local	Long term	-	High, Definite
Socio Economic Environment	Financial implications	The proposed storage facility will provide a convenient and accessible service to clients in the area	High, Definite (Positive)	Local	Long term	It is foreseen that most of the product will be sold in the Tembisa area where there is a shortage of LP Gas and fuel. There is also a high demand for cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.	High, Definite
Socio Economic Environment	Financial implications on adjacent filling station	Financial implications on adjacent filling station	Low, Improbable	Local	Long term	The proposed facility is for the storage of Petrol, Diesel & LP Gas and is not for the direct retail to the public/clients. The purpose of the proposed facility is for storage of the products and then to distribute from the site where the product is needed. The adjacent Royale Energy site does not have whole sale LP Gas facilities. The prosed new facility will store a different product than Royale Energy and it is therefor not possible for the applicant to store his product in the tanks of Royale Energy or for Royale Energy to store their product at the proposed new storage facility.	Low, Improbable

No Go

The Department Forestry, Fisheries and the Environment stresses the consideration of the "no development/no-action" option in cases where a proposed development is envisaged to have significant negative environmental impacts, or where such impacts cannot be mitigated against effectively or satisfactorily. The IEM procedure suggests that the "no action" option should be considered as an alternative. This option is normally considered during a full EIA where significant negative environmental impacts are expected or if the proposed site is considered to be ecologically sensitive or unique. The proposed site is located on an industrial zoned property and was previously used for similar purposes.

In the case of the intended development, the consideration of the "no-action option" can be justifiably dismissed as an alternative due to the fact that no biologically sensitive areas or species are bound to be disturbed and due to the fact that the proposed development will not result in so-called "fatal flaws" (all identified impacts can be mitigated effectively through the implementation of the recommendations in this report). However, should evidence become available which suggests that the no action option should be reviewed as an alternative, then this alternative should warrant reconsideration.

A Geotechnical and Dolomite Study (see Appendix G) was conducted and it was found that:

- **The land use classification of the site is DEVELOPABLE with tolerable risk with respect to sinkhole or doline formation for a C3 commercial land use.**
- **From a geotechnical perspective the site is suited for the proposed development.**

If the proposed activity does not take place it will have the following implications:

- **Loss of employment opportunities.**
- **There will still be a shortage of LP Gas and fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.**
- **There will still be a high demand for cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.**

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Geotechnical and Dolomite Study (see Appendix G)

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

No impact assessment can be completely certain of the exact nature and extent of the various anticipated impacts that would result from a given development activity. However, this assessment strives to limit any uncertainties by optimising the collection of base data, and by following a rigorous impact assessment methodology.

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.
Proposal

There is at present no intention or indication of future intentions, to decommission the facility. Should decommissioning occur then impacts resulting from such may include:

Potential impacts:	**Significance rating of impacts (positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** and **mitigation not being implemented**
Noise pollution from machinery decommissioning existing infrastructure	Moderate	Excessive noise from the labour force, especially those using noisy equipment should be avoided. Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to 07h00 and 18h00 (Mondays to Saturdays only). The surrounding area consists of an industrial area	Low-Moderate	Low-Moderate
Dust and surface disturbance due to the digging of trenches to remove the infrastructure	Moderate	Activities that are to be conducted on the site of application must ensure effective management so as to minimise air pollution. Damping down of cleared areas should take place. Control measures such as wet-suppression (watering) should be implemented to reduce dust arising from construction (decommissioning) activities. Such requirements should be included into the contracts of the individual contractors that will be performing construction activities. The legal requirements of the Atmospheric Pollution Provision Act (Act 45 of 1965) and limitations set by the National Air Pollution Advisory Committee must be adhered to.	Low-Moderate	Low-Moderate
Removal and disposal of decommissioned equipment and waste (e.g. Concrete)	Low-Moderate	Construction waste (i.e. excavated soil and concrete and other building rubble) must be transported to the nearest suitable registered waste disposal site. The fuel tanks should be cleaned and tested for leaks if it is to	Low	Low

		be reused.		
Soil and Ground water pollution caused by removal of fuel tanks	Moderate-High	All fuel inside the tank must be removed and the tank degassed, with the site then excavated to expose the tank. In order to ensure the tank is not damaged during excavation especially in areas of limited space, a small back actor must be used or the area must be manually excavated, with the removed soil stockpiled in a demarcated area on site. All other electrical, storm water or water pipelines must be located prior to excavation to ensure they are not damaged in the excavation process. All pipes and vents connected to the tank must be disconnected and sealed before the tank is removed.	Moderate	Moderate
Loss of employment opportunities	High	Employment opportunities will be lost.	High	High
Shortage of LP Gas and cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.	Moderate-High	Shortage of LP Gas and cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.	Moderate	Moderate

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Not applicable as decommissioning and closure are not being applied for.

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not applicable

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

The majority of cumulative impacts will be related to the construction phase.

- **Noise pollution may upset residents in the area – to prevent this, construction activities may only take place during the daytime. Maintenance of construction vehicles and equipment should take place and fitted with noise suppression equipment;**
- **Dust pollution could cause nuisance to surrounding residents – dust can be effectively controlled through the wetting of exposed surfaces, especially in the winter months;**
- **During the construction phase some safety problems (especially for the surrounding residents) may occur – in order to minimise this, provision for adequate security/ site supervision must be made during the day.**
- **Construction traffic - A possible secondary impact that could arise is that motorists could start using other routes to avoid the construction area, thus causing heavier traffic in other normally quieter areas. Due to the limited extent of the construction site and time this impact is of low significance.**

Cumulative impacts during the operation phase include:

- **The development of hard surfaces (to prevent dust and pollution of soil) can give rise to greater volumes and velocity of runoff waters during high peak flows. This water will however drain into the existing roads and stormwater management systems. Localised flooding may result on negative impacts on bed and banks of the stream course due to the cumulative effects. This impact is deemed of minor significant since effective mitigation thereof is possible due to the small size of the area that is to be developed and the fact that no surface water courses are not located close to the site**
- **Increase in traffic from trucks delivering/loading fuel/gas. Adverse impacts from traffic can be minimized through good planning by the site operator and controlled site activities. Dedicated access routes must be identified for delivery vehicles. All drivers of vehicles involved in delivery activities should adhere to traffic**

regulations.

Subsequently, the above mentioned cumulative impacts can be mitigated if activities are correctly planned and measures are implemented to manage activities which could cause any negative cumulative impacts.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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 actually occurring and the significance of impacts.

Proposal

The project consists of the development and related operation of a storage facility for the storage and handling of dangerous goods. The storage will occur in containers/tanks with a combined capacity of 300 cubic metres and will consist of the following:

- **100 000 litre diesel**
- **100 000 litre petrol**
- **100 000 litre LP Gas**

The site is located on Erf 1597 Clayville Extension 22 (30 Axle Drive, Olifantsfontein) in the City of Ekurhuleni Metropolitan Municipality.

The site proposed for the installation of the storage tanks is located in a build-up area in the Olifantsfontein/Clayville industrial area and is zoned for industrial purposes. The site is disturbed and consists of a cleared area. There are no remaining natural vegetation on the site and this impact is therefore deemed to be of low significance.

The site for the proposed installation of the storage tanks was used for similar purposes in the past by previous owners. The facility is also only for the storage of fuel/gas and will be distributed to areas (mainly Tembisa) where the products are required. The facility will not be for retail purposes and there will therefor be limited increase in traffic to the proposed site. Adverse impacts from traffic can be minimized through good planning by the site operator and controlled site activities.

The main potential environmental impacts association with the construction phase of the proposed activity will be inconvenience caused to the adjacent properties due to dust and noise created by construction activities.

The main potential environmental impacts association with the operational phase of the proposed activity are:

- **Leakage from tanks resulting in pollution of land(soil) and underground water**
- **Contaminated run-off from the refueling area can cause pollution of soils and surface water**
- **Increase of atmospheric emissions (i.e. Volatile Organic Compounds (VOCs))**

It is recommended that possible negative impacts be mitigated through the implementation of the proposals contained in this report and attached EMPr.

Alternative 1

Alternative 2

No-go (compulsory)

The Department Forestry, Fisheries and the Environment stresses the consideration of the "no development/no-action" option in cases where a proposed development is envisaged to have significant negative environmental impacts, or where such impacts cannot be mitigated against effectively or satisfactorily. The IEM procedure suggests that the "no action" option should be considered as an alternative. This option is normally considered during a full EIA where significant negative environmental impacts are expected or if the proposed site is considered to be ecologically sensitive or unique. The proposed site is located on an industrial zoned property and was previously used for similar purposes.

In the case of the intended development, the consideration of the "no-action option" can be justifiably dismissed as an alternative due to the fact that no biologically sensitive areas or species are bound to be disturbed and due to the fact that the proposed development will not result in so-called "fatal flaws" (all identified impacts can be mitigated effectively through the implementation of the recommendations in this report). However, should evidence become available which suggests that the no action option should be reviewed as an alternative, then this alternative should warrant reconsideration.

A Geotechnical and Dolomite Study (see Appendix G) was conducted and it was found that:

- **The land use classification of the site is DEVELOPABLE with tolerable risk with respect to sinkhole or doline formation for a C3 commercial land use.**
- **From a geotechnical perspective the site is suited for the proposed development.**

If the proposed activity does not take place it will have the following implications:

- **Loss of employment opportunities.**
- **There will still be a shortage of LP Gas and fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.**
- **There will still be a high demand for cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.**

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The main potential environmental impacts association with the operational phase of the proposed storage facility are:

- **Leakage from tanks resulting in pollution of land(soil) and underground water**
- **Contaminated run-off from the refueling area can cause pollution of soils and surface water**
- **Increase of atmospheric emissions (i.e. Volatile Organic Compounds (VOCs))**

It is recommended that possible negative impacts be mitigated through the implementation of the proposals contained in this report and attached EMPr.

For alternative:

Alternative 1

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

It is evident that based on the biophysical and sociological characteristics, the site is suitable for the proposed construction of fuel/gas storage facility (only if the project is planned and managed in accordance with an approved Environmental Management Programme).

The development will fit in with the surrounding industrial area and create job opportunities during the construction as well as operational phases.

The site is located close to the Tembisa area where it is foreseen to deliver the fuel/gas as there is a shortage of gas and cheaper fuel.

As already indicated, most of the construction and operational related activities could be mitigated to an acceptable level. Furthermore, no detrimental ecological impacts are anticipated.

The mitigations outlined in this Basic Assessment Report and the Environmental Management Programme with respect to potential adverse impacts should result in limited adverse impacts on local and regional, natural and socio-economic resources.

No "fatal flaws" or adverse impacts that cannot be mitigated are anticipated to be associated with the proposed development.

A Geotechnical and Dolomite Study (see Appendix G) was conducted and it was found that:

- **The land use classification of the site is DEVELOPABLE with tolerable risk with respect to sinkhole or doline formation for a C3 commercial land use.**
- **From a geotechnical perspective the site is suited for the proposed development.**

As a result of the above mentioned information, the EAP is of the opinion that the proposed development (only if planned, implemented and managed correctly) will in the long term have a positive impact on the community.

It is therefore requested that the development be allowed to proceed, so long as the mitigation measures contained in this report and in the Environmental Management Programme (Appendix H) are implemented, so as to achieve maximum advantage from beneficial impacts, and sufficient mitigation of adverse impacts.

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The South African National Biodiversity Institute BGIS Map Viewer of the Gauteng Conservation Plan Version 3.3 was used to assess the environmental sensitivity of the site and the surrounding environment. The BGIS indicated that the site does not fall under a Critical Biodiversity Area. The area is located in a proclaimed industrial area and zoned as "Industrial 1" (see Appendix I).

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES [redacted]

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

The main mitigation measures proposed that should be considered for inclusion in the authorisation relates to the

contamination of ground and surface water during operation of the proposed storage facility and includes the following:

- **Sealing of the refuelling area and other areas where fuel products are handled to prevent infiltration of petroleum products into the soil underlying the site.**
- **Storm water draining from the surfaced areas should be collected in a sealed sump to be treated or removed (as indicated on the layout plan).**
- **Preventative measures should be installed to prevent the storm water or other liquids draining into the natural soil.**
- **Fuel lines and dispensers should be rendered leak-proof. This may include the boxing of these services.**
- **Daily reconciliation of the volumes of fuel should be done to ensure early detection of a possible leak.**
- **Any losses should be reported to the relevant authorities within 14 days and the necessary remedial action taken.**
- **The applicant must adhere to the Environmental Management Programme:**
    - **The mitigation measures stipulated in this report should be conveyed to contractors and persons responsible for construction and operation of the facility (See Appendix H - Environmental Impacts and Management)**
    - **The applicant must appoint an ECO to monitor that all parties involved with the installation and operation of the storage tanks are complying with the mitigation measures put out in this Basic Assessment Report.**

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

It is foreseen that most of the product will be sold in the Tembisa area where there is a shortage of LP Gas and fuel.

There is also a high demand for cheaper fuel in the Tembisa area which can be supplied from the proposed storage facility/depot to clients in the area.

Job opportunities will also be created during the construction and operation phases of the project.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

The Environmental Authorisation (EA) is required for at least five (5) years.

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached	**YES**

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

- **Geotechnical and Dolomite Study**

Appendix H: EMPr

Appendix I: Other information

- **Zoning Certificate**

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.