



**Basic Assessment Report in terms of the NEMA Environmental Impact Assessment
Regulations, 2010
AUGUST 2010**

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by DEA&DP in terms of the EIA Regulations, 2010 and must be completed for all Basic Assessment applications.
2. This report must be used in all instances for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended, and the Environmental Impact Assessment Regulations, 2010, and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEM: WA), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM: AQA).
3. This report is current as of 2 August 2010. It is the responsibility of the Applicant / EAP to ascertain whether subsequent versions of the report have been published or produced by the competent authority.
4. The required information must be typed within the spaces provided in the report. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that will expand as each space is filled with typing.
5. Incomplete reports will be rejected. A rejected report may be amended and resubmitted.
6. The use of "not applicable" in the report must be done with circumspection. Where it is used in respect of material information that is required by the Department for assessing the application, this may result in the rejection of the report as provided for in the regulations.
7. **While the different sections of the report only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.**
8. Unless protected by law all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for the belief that the information is protected.
9. This report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. No faxed or e-mailed reports will be accepted. **Please note that for waste management licence applications, this report must be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office Region A.**
10. Unless indicated otherwise, two electronic copies (CD/DVD) and three hard copies of this report must be submitted to the Department.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE REGION A (Cape Winelands, City of Cape Town: Tygerberg and Oostenberg Administrations)	CAPE TOWN OFFICE REGION B (West Coast, Overberg, City of Cape Town: Helderberg, South Peninsula, Cape Town and Blaauwberg Administrations)	GEORGE OFFICE (Eden and Central Karoo)
Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region A2) Private Bag X 9086 Cape Town, 8000 Registry Office 1 st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Integrated Environmental Management (Region A2) at: Tel: (021) 483-4793 Fax: (021) 483-3633	Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region B) Private Bag X 9086 Cape Town, 8000 Registry Office 1 st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Integrated Environmental Management (Region B) at: Tel: (021) 483-4094 Fax: (021) 483-4372	Department of Environmental Affairs and Development Planning Attention: Directorate: Integrated Environmental Management (Region A1) Private Bag X 6509 George, 6530 Registry Office 4 th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Integrated Environmental Management (Region A1) at: Tel: (044) 805 8600 Fax: (044) 874-2423

View the Department's website at <http://www.capegateway.gov.za/eadp> for the latest version of this document.

DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	16/3/1/1/A8/10/1079/13
File reference number (Waste):	Not Applicable
File reference number (Other):	Not Applicable

PROJECT TITLE

Proposed Construction of a LPG Storage and Distribution Depot on Erf 9834, Beaconvale

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Environmental Assessment Practitioner (EAP):	<i>Frontline Safety Health & Environmental Consultants</i>		
Contact person:	<i>Justin Gichobi</i>		
Postal address:	<i>P.O Box 1527</i>		
	<i>Sanlamhof</i>	Postal code:	<i>7532</i>
Telephone:	<i>(021) 914 7080</i>	Cell:	<i>082 715 4793</i>
E-mail:	<i>info@frontlinesafety.co.za</i>	Fax:	<i>086 605 6469</i>
EAP Qualifications	<i>Ba. Hons (UWC, 2004) Msc (UCT, 2007)</i>		
EAP Registrations/Associations	<i>IAIAsa Member</i>		

Details of the EAP's expertise to carry out Basic Assessment procedures

<i>Name</i>	<i>Justin Gichobi</i>
<i>Responsibility on project</i>	<i>Project consultant and report compilation</i>
<i>Qualifications</i>	<i>Ba. Hons (UWC, 2004) Msc (UCT, 2007)</i>
<i>Experience in years</i>	<i>8</i>
<i>Experience</i>	<i>Justin Gichobi has worked as an environmental assessment practitioner as well as an Environmental Control Officer since 2006. He has been involved in a number of projects covering a range of environmental disciplines, Basic Assessments, Environmental Impact Assessments and Environmental Management Programmes (construction and operation phases). He has experience in a wide range of projects relating to infrastructure projects, housing and industrial developments. Justin has experience also in environmental monitoring and auditing, public participation, environmental education and training.</i>

EXECUTIVE SUMMARY OF THE CONTENT OF THE BASIC ASSESSMENT REPORT:**1. INTRODUCTION**

Fuel First proposes to establish an LPG storage and distribution depot on Erf 9834 located in the industrial area of Beaconvale, Cape Town. The property on which the proposed activity is to be undertaken is 3996 m² in extent and is zoned as Industrial. The approximated co-ordinates of the site are Latitude: 33°54'44.70"S and Longitude: 18°35'8.07"E. The area surrounding the facility is mainly industrial and commercial. There is a residential area within 150m to the east of the site (see Figure 1 next page). The site is deficient of vegetation and water bodies. The site lies within the Tygerberg District, which is within the Urban Edge of the Cape metropole.

The proposed activity is envisaged to have the following components:

- 1) LPG Cylinder Storage: This component entails the construction of a raised platform for the storage of full cylinders, empty cylinder returns and a high pressure washing area.
- 2) Building structures: This component includes storage facilities and a standard office with reception area, board room, store room, server room, wash rooms, staff and managers room.
- 3) LPG Bulk Tanks: This component entails the pacing of two 90 m³ LPG storage tanks.



Figure 1: Aerial view of the site (The dotted yellow polygon depicts Erf 9834 referred to as “the site”).

2. LEGISLATION

The National Environmental Management Act (NEMA, Act 107 of 1998), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an Environmental Assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). In the Western Cape, these powers are delegated to the Department of Environmental Affairs & Development Planning (DEA&DP).

The National Environmental Management Act No. 107 of 1998, as amended in June 2010, and the Environmental Impact Assessment Regulations, provides for the control of activities that may have an impact on the environment. The proposed development will constitute the following listed activities as defined in terms of Government Notice No. R.544 of 2010 that reads as follows:

Activity 13: The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.

The listed activity above requires a basic environmental assessment to be undertaken and Frontline Safety Health and Environmental Consultants were commissioned to undertake the environmental assessment for the proposed development. The draft Basic Assessment Report (BAR) serves as the

documentation in support of an assessment level study that forms part of a basic Environmental Impact Assessment (EIA) for a proposed construction of a LPG storage and distribution depot on Erf 9834, Beaconvale. The competent authority that will be responsible for decision-making regarding the proposed activity is the Department of Environmental Affairs and Development Planning (DEA&DP).

In view of the above, this Executive Summary includes the main findings of the Draft Basic Assessment Report (BAR) prepared for the proposed activity. The Draft BAR is being distributed for a 40-day review / comment period from 30 January to 10 March 2014. The intention is to provide Interested and Affected Parties (I&APs) and authorities the opportunity to comment on the proposed project and the Draft BAR.

3. ALTERNATIVES AND PREFERRED LAYOUT PLAN

The term “Alternatives”, in relation to a proposed activity, is defined as different means of meeting the general purposes and requirements of the activity. In this report, two types of alternatives are described; the No Go Option and Layout alternatives.

The No-Go Option refers to Fuel First not construction the LPG storage facility on Erf 9834 Beaconvale. In this scenario, the potential environmental and social impacts will not occur and the status quo will be maintained. However, should this project not proceed, the proposed site will remain undeveloped with undesirable visuals. In addition, no job opportunities will be created during the construction or operational phases. The No-Go Option is thus not deemed feasible, but is nevertheless assessed, as required in terms of NEMA and its EIA Regulations.

In terms of layout alternatives, three layout plans (Alternative 1, 2 and Alternative 3) were generated and assessed. Alternative 3 was considered the preferred alternative and the next paragraphs describe the alternative.

In this alternative, the storage area of full LPG cylinders and cylinder filling equipment is positioned in an area covering 719 m² in extent at the north western portion of the property. The intention to make use of the already existing 4 metre boundary walls north of Site, which will be reinforced by building a new 4m fire wall.

Below the cylinder storage area, along the western boundary, is a section earmarked for empty cylinder returns and high pressure washing bay. Below the washing bay is an area set aside for the construction of cylinder cold works and storage. The central portion of the property has an area of 460m² designated for sorting cylinders some needing revalidation as well as sorting cylinder belonging to other companies. The sorting area would be protected by bollards.

The office component and cylinder cold works and storage buildings are placed in close proximity to each other in the south west portion of the property. The two 90m LPG above ground, horizontal storage tanks are placed at the north eastern most portion of the property. The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) of all the components of the proposed activity are met (see Figure 2 next page).

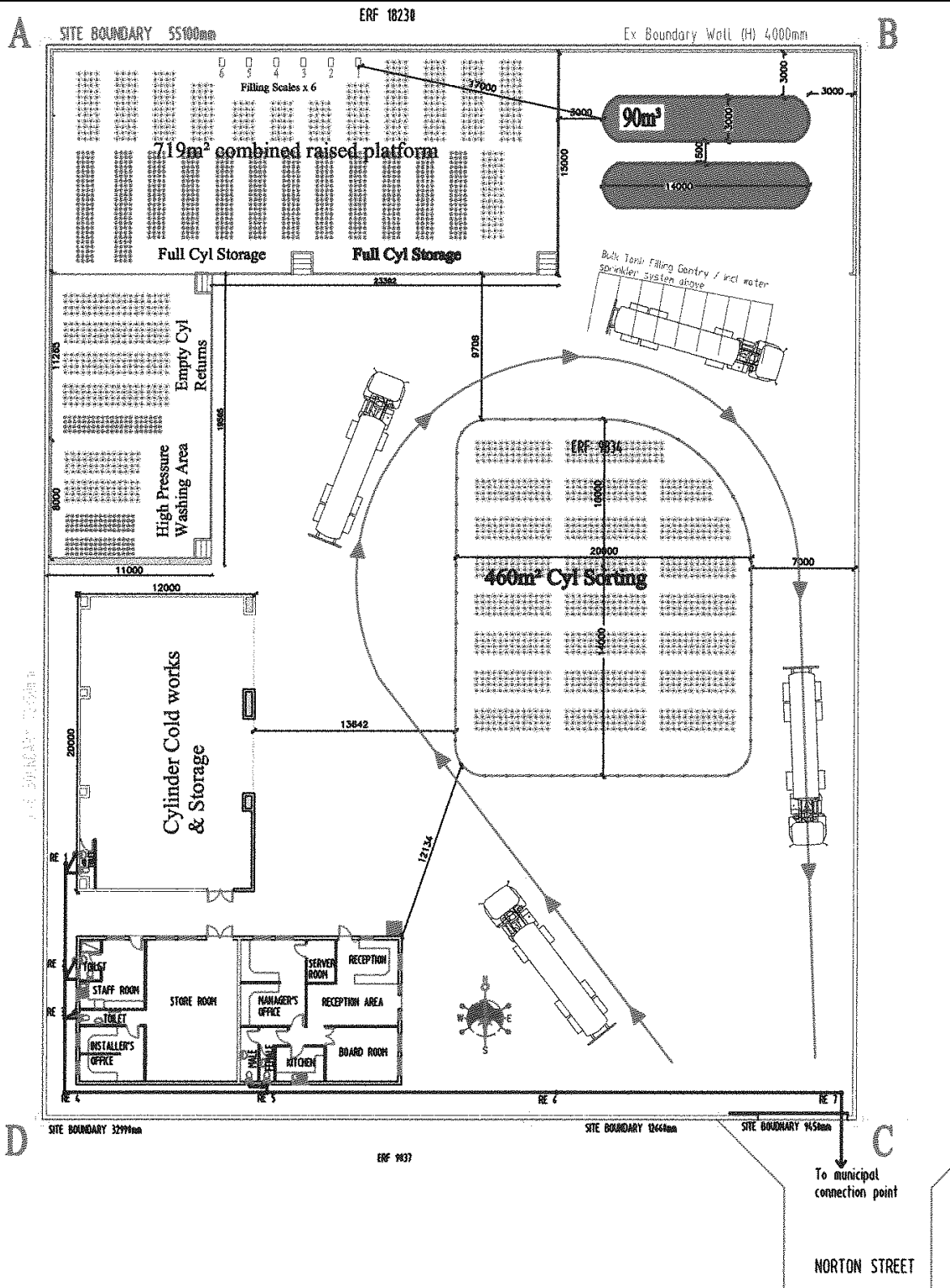


Figure 2: Layout Plan of the preferred alternative

The advantages of this alternative are that:

- ❖ The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) are met in some instances by erecting correct 9" – min 2hr fire rated fire wall along the northern and western boundaries. The safety distances would also be met by making use of the correct or prescribed water deluge or tank cladding systems.
- ❖ Truck access and adequate space for maneuver is provided in this alternative. This makes bulk tanker offload and loading of cylinders procedures efficient.

- ❖ In terms of safety the two 90m LPG storage tanks are placed at the safest location, north east of the property.
- ❖ The LPG cylinder storage and cylinder filling procedures are located in the best possible area, with appropriate erection of fire walls along LPG cylinder filling and storage.
- ❖ The office component and cylinder cold works and storage buildings are placed in close proximity to each other for easy provision of municipal services and low cost implications.

4. IMPACTS ASSESSED

The following anticipated impacts were assessed in the report:

Impacts that may result from the planning, design and construction phase include but not limited to:

- Construction dust and noise;
- Visual impacts;
- Traffic and access impacts; and
- Social impacts.

Impacts that may result from the operational phase include but not limited to:

- Operational dust and noise;
- Visual impacts;
- Traffic and access impacts;
- Infrastructural / service impacts;
- Social impacts; and
- Fire Risk

5. ENVIRONMENTAL IMPACT STATEMENT

The potential construction and operational phase impacts of the proposed project are summarised in Tables 1 and 2 next page.

All negative impacts related to the construction and operation phase of the proposed project have been rated as of **VERY LOW** to **LOW** significance after mitigation, while job opportunities created during the construction and operation phase are rated as being of **LOW POSITIVE** significance.

Table 1: Impacts during the construction phase

Impact	Significance Without Mitigation	Significance With Mitigation
Geographical and Physical Aspects	No Impact	No Impact
Biological Aspects: Vegetation/ Freshwater/ Cultural-historical Aspects	No Impact	No Impact
Socio-economic Aspects: Employment	Low (Positive)	Low (Positive)
Construction dust	Low (Negative)	Very Low (Negative)
Construction noise	Low (Negative)	Very Low (Negative)
Visual impacts	Low (Negative)	Very Low (Negative)
Traffic and access impacts	Low (Negative)	Very Low (Negative)

Table 2: Impacts during the operational phase

Impact	Constructed LPG Storage and Distribution Depot		No-Go Option	
	Significance Without Mitigation	Significance With Mitigation	Significance Without Mitigation	Significance With Mitigation
Geographical and Physical Aspects	No Impact	No Impact	No Impact	No Impact
Biological Aspects: Vegetation/Freshwater/Cultural-historical Aspects	No Impact	No Impact	No Impact	No Impact
Socio-economic Aspects: Employment	Low (Positive)	Low (Positive)	Low (Positive)	Low (Positive)
Operational dust/noise	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Infrastructural/service impacts	Very Low (Negative)	Very Low (Negative)	No Impact	No Impact
Visual impacts	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Traffic and access impacts	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Fire Risk	Low - Medium (Negative)	Low (Negative)	No Impact	No Impact

Implementation of the No-Go option, implying that the Construction of a LPG Storage and Distribution Depot would not be undertaken. This would render the employment opportunities during the construction and operation phase unavailable. This would not improve the lives of individuals of the previously disadvantaged disposition who would be engaged during the construction and operation phase. In addition, negative impacts related to the construction and operation proposed activities are rated as of **VERY LOW** to **LOW** significance. Thus, the No-Go option is considered as undesirable.

6. CONCLUSION AND RECOMMENDATIONS

Due to the low significance of potential impacts associated with the proposed development, only a few recommended mitigation measures have been identified as important. These are summarised below.

- ❖ **Visual Impacts:** Visual screening with shade cloth and fencing. Effective implementation of the EMP, with the use of an Environmental Control Officer (ECO).
- ❖ **Socio-economic Impacts:** Local labour is to be used as far as possible during the construction phase of the development. Ensure that the majority of the new temporary employment workers are offered to members of the local community by implementing WCG's Standard Procurement Policy.
- ❖ **Dust:** The appointed contractor shall ensure that the generation of dust is minimised and shall implement a dust control measures to maintain a safe working environment and minimize nuisance for the surrounding landowners and businesses. The contractor shall ensure that exposed soil and material stockpiles are adequately protected against the wind.

- ❖ **Noise:** The appointed contractor shall be familiar with and adhere to, any local by-laws and regulations regarding the generation of noise and hours of operation. The Contractor shall avoid construction activities outside of “normal working hours”. The contractor shall notify neighbouring landowners and road users in advance of activities that would produce excessive noise.
- ❖ **Safety and Access:** Provide adequate signage to make road users aware of construction works.
- ❖ **Solid Waste Management:** The appointed contractor shall provide suitable containers for the collection and storage of solid waste on site. All construction waste shall be disposed of off-site at a licensed landfill site.

Over and above the mitigation measures above, an Environmental Management Programme (EMP) have been compiled, which outlines conditions to be complied with and the measures to be undertaken during the construction phase (see Appendix E).

7. THE WAY FORWARD

The Draft BAR has been compiled to communicate the assessment of the potential environmental impacts of the proposed project, and to inform I&APs of the proposed project and obtain their feedback. Therefore this draft BAR is available for a 40-day commenting period. Members of the public are invited to submit their comments between 19 February to 31 March 2014 to Frontline Safety Health and Environmental Consultants.

For comments to be included in the Final BAR they should reach the offices of Frontline Safety Health and Environmental Consultants **no later than 31 March 2014** at the following contact details:

Musturah Parker
Frontline Safety Health & Environmental Consultants
P.O Box 1527
Sanlamhof , 7532
Tel: (021) 914 7080 Fax: 086 605 6469
Email: info@frontlinesafety.co.za

All comments received will be collated in a Comments and Responses Report and included in the final BAR to be submitted to DEA&DP for consideration and decision-making. After DEA&DP has reached a decision, all I&APs on the project database will be notified of the decision. A statutory appeal period will follow the issuing of the decision.

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SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

(a) Is the project a new development?	YES	NO
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(b) Provide a detailed description of the development project and associated infrastructure.

The proposed activity is envisaged to have the following storage facilities:

1) LPG Cylinder Storage

(a) This component entails the construction of a raised platform for the storage of full cylinders, empty cylinder returns and a high pressure washing area.

2) Building structures

This component include storage facilities and a standard office with reception area, board room, store room, server room, wash rooms, staff and managers room.

3) LPG Bulk Tanks

This component entails the placing of two 90 m³ LPG storage tanks.

Three alternative layouts have been generated. A description of the development project and associated infrastructure is provided under each of the alternatives (see Section E). Utility services would be constructed by the developer and connected to the existing municipal network.

(c) List all the activities assessed during the Basic Assessment process:

GN No. R. 544 Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 544)	Describe the portion of the development as per the project description that relates to the applicable listed activity.
13	<i>The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.</i>	<i>The proposed development entails the construction of facilities to store diesel and LPG, which constitute handling of dangerous goods. The two LPG bulk tanks has a combined capacity of 180 m³</i>
GN No. R. 546 Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 546)	Describe the portion of the development as per the project description that relates to the applicable listed activity.
	<i>Not Applicable</i>	

If the application is also for activities as per Listing Notice 2 and permission was granted to subject the application to Basic Assessment, also indicate the applicable Listing Notice 2 activities:

GN No. R. 545 Activity No(s):	If permission was granted in terms of Regulation 20, describe the relevant Scoping and EIA Activity(ies) in writing as per Listing Notice 2 (GN No. R. 545)	Describe the portion of the development as per the project description that relates to the applicable listed activity.
	<i>Not Applicable</i>	

Waste management activities in terms of the NEM: WA (Government Gazette No. 32368):

GN No. 718 - Category A Activity No(s):	Describe the relevant <u>Category A</u> waste management activity in writing.
	<i>Not Applicable</i>

Please note: If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I**.

If the application is also for waste management activities as per Category B and permission was granted to subject the application to Basic Assessment, also indicate the applicable Category B activities:

GN No. 718 – Category B Activity No(s):	Describe the relevant <u>Category B</u> waste management activity in writing.
	Not Applicable

Atmospheric emission activities in terms of the NEM: AQA (Government Gazette No. 33064):

GN No. 248 Activity No(s):	Describe the relevant atmospheric emission activity in writing.
	Not Applicable

(d) Please provide details of all components of the proposed project and attach diagrams (e.g. architectural drawings or perspectives, engineering drawings, process flow charts etc.).

Buildings	YES ✓	NO
Provide brief description:		
<i>This component include storage facilities and a standard office with reception area, board room, store room, server room, wash rooms, staff and managers room.</i>		
Infrastructure (e.g. roads, power and water supply/ storage)	YES ✓	NO
Provide brief description:		
<i>The property on which the proposed activity lies within an existing built up area with existing roads power and water supply are available. The construction of additional infrastructure is therefore not required. The following services will be connected to existing networks.</i>		
Roads: <i>It is envisaged that access to the site will be obtained from Norton Street, Beaconvale Industrial</i>		
Power: <i>Electricity infrastructure will be connected to existing power network.</i>		
Water: <i>Water will be obtained from the existing municipal networks.</i>		
Stormwater: <i>Stormwater infrastructure will be linked to the existing stormwater network.</i>		
Processing activities (e.g. manufacturing, storage, distribution)	YES	NO ✓
Provide brief description:		
Not Applicable		
Storage facilities for raw materials and products (e.g. volume and substances to be stored)		
Provide brief description	YES	NO ✓
Not Applicable		
Storage and treatment facilities for solid waste and effluent generated by the project		
Provide brief description	Yes	No ✓
Not Applicable		
Other activities (e.g. water abstraction activities, crop planting activities)		
Provide brief description	Yes	No ✓
Not Applicable		

2. PHYSICAL SIZE OF THE ACTIVITY

	Size of the property:
(a) Indicate the size of the property (cadastral unit) on which the activity is to be undertaken.	<i>Approximately 3996m²</i>
	Size of the facility:
(b) Indicate the size of the facility (development area) on which the activity is to be undertaken.	<i>Approximately 1500m²</i>

	Size of the activity:
(c) Indicate the physical size (footprint) of the activity together with its associated infrastructure:	<i>Approximately 1500m²</i>
(d) Indicate the physical size (footprint) of the activity:	<i>It is envisaged that the footprint of the activity will not exceed the zoning restrictions as per the applicable zoning scheme for the area.</i>
(e) Indicate the physical size (footprint) of the associated infrastructure:	<i>Approximately 1500m². It is envisaged that the footprint of the associated infrastructure will not exceed the zoning restrictions as per the applicable zoning scheme for the area. However, the exact size of the associated infrastructure will be determined during the detailed design phase of the project.</i>

and, for linear activities:

	Length of the activity:
(f) Indicate the length of the activity:	<i>Not Applicable</i>

3. SITE ACCESS

(a) Is there an existing access road? <i>Direct access to the site is from Norton Street, Beaconvale Industrial</i>	YES✓	NO
(b) If no, what is the distance over which a new access road will be built?	m	

(c) Describe the type of access road planned:

<i>Not Applicable</i>

Please Note: indicate the position of the proposed access road on the site plan.

4. DESCRIPTION OF THE PROPERTY ON WHICH THE ACTIVITY IS TO BE UNDERTAKEN AND THE LOCATION OF THE ACTIVITY ON THE PROPERTY

(a) Provide a description of the property on which the activity is to be undertaken and the location of the activity on the property.

The property on which the proposed activity is to be undertaken is generally vacant and deficient of vegetation and water bodies. However, the property is tarred and a building structure exist north west of the site.

The area surrounding the facility is mainly industrial and commercial. There is a residential area within 300m to the east of the site. The site lies within the Tygerberg District, which is within the Urban Edge of the Cape metropole.

(b) Please provide a location map (see below) as **Appendix A** to this report which shows the location of the property and the location of the activity on the property; as well as a site map (see below) as **Appendix B** to this report; and if applicable all alternative properties and locations.

Locality map:	<p>The scale of the 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 map must indicate the following:</p> <ul style="list-style-type: none"> • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; • the prevailing wind direction (during November to April and during May to October); and • GPS co-ordinates (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 degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection). <p>See Appendix A: Locality Map</p>
Site Plan:	<p>Detailed site plan(s) must be prepared for each alternative site or alternative activity. The site plan must contain or conform to the following:</p> <ul style="list-style-type: none"> • The detailed site plan must be at a scale preferably at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. • The position of each element of the application as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan. • Servitudes indicating the purpose of the servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> ◦ Rivers. ◦ Flood lines (i.e. 1:10, 1:50, year and 32 meter set back line from the banks of a river/stream). ◦ Ridges. ◦ Cultural and historical features. ◦ Areas with indigenous vegetation (even if it is degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, then a contour map of the site must be submitted. <p>See Appendix B: Site Plan (Alternatives)</p>

(c) For a linear activity, please also provide a description of the route.

Not Applicable

Indicate the position of the activity using the latitude and longitude of the centre point of the site. The co-ordinates must be in degrees, minutes and seconds. The minutes should be given to at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.	Latitude (S):			Longitude (E):		
	33°	54 ‘	44.70 “	18°	35 ‘	8.07 “

(d) or:

For linear activities: Not Applicable	Latitude (S):			Longitude (E):		
• Starting point of the activity	°	’	“	°	’	“
• Middle point of the activity	°	’	“	°	’	“
• End point of the activity	°	’	“	°	’	“

Please Note: For linear activities that are longer than 500m, please provide an addendum with co-ordinates taken every 100 meters along the route.

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken of the site and from the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. It should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

See Appendix C: Site Photographs

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Site/Area Description

For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete copies of this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area which is covered by each copy No. on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

Flat✓	Flatter than 1:10	1:10 – 1:4	Steeper than 1:4
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2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es)).

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain✓	Undulating plain/low hills	Dune	Sea-front
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(b) Please provide a description of the location in the landscape.

The site is approximately 10km east of the nearest coastline, and approximately 10km to the south east of the Tygerberg Hills. The site is located approximately 10km south east of the Diep River (See Figure B1 below).

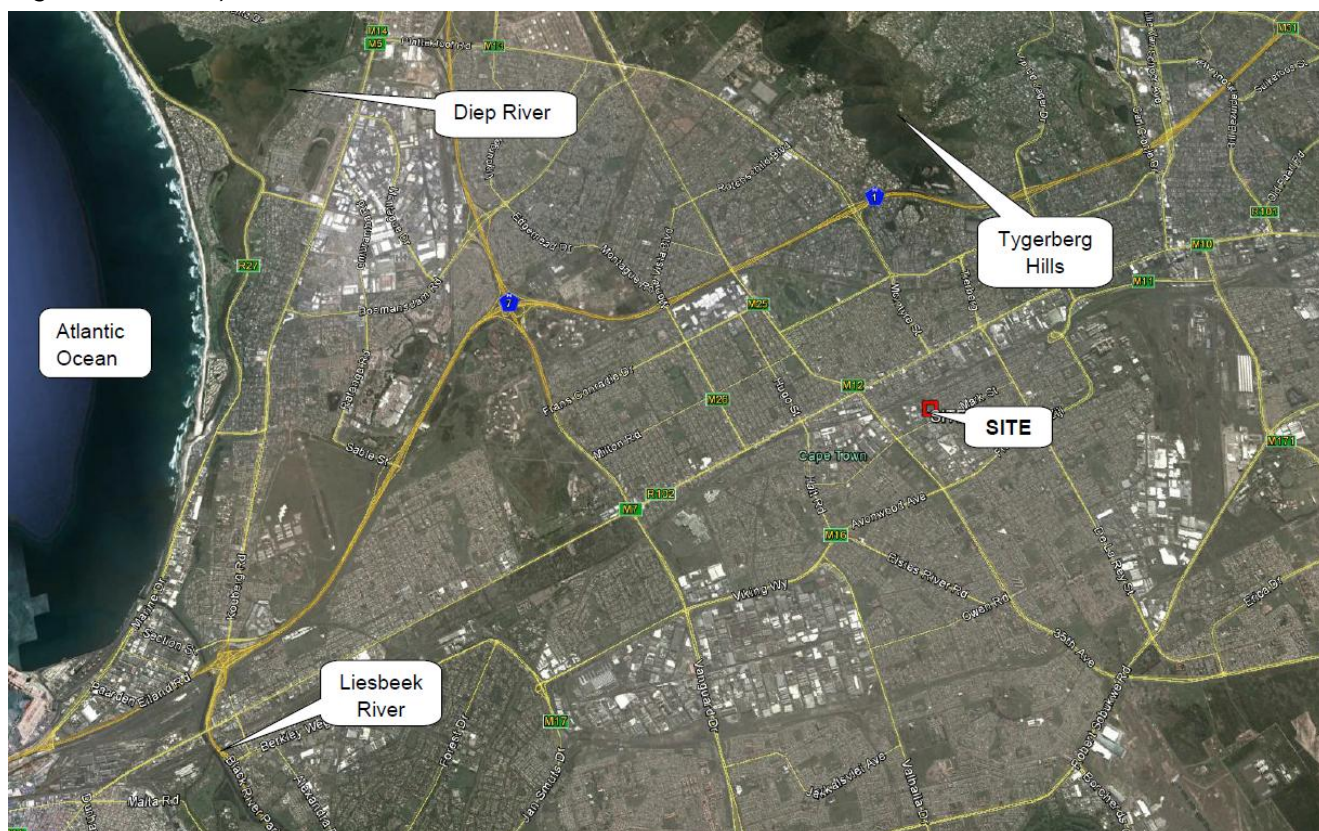


Figure B1: Aerial view of the surrounding landscape

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Shallow water table (less than 1.5m deep)	YES	NO✓	UNSURE
Seasonally wet soils (often close to water bodies)	YES	NO✓	UNSURE
Unstable rocky slopes or steep slopes with loose soil	YES	NO✓	UNSURE
Dispersive soils (soils that dissolve in water)	YES	NO✓	UNSURE
Soils with high clay content	YES	NO✓	UNSURE
Any other unstable soil or geological feature	YES	NO✓	UNSURE
An area sensitive to erosion	YES	NO✓	UNSURE
An area adjacent to or above an aquifer.	YES	NO✓	UNSURE
An area within 100m of the source of surface water	YES	NO✓	UNSURE

(b) If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department. (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).

(c) Please indicate the type of geological formation underlying the site.

Granite	Shale✓	Sandstone✓	Quartzite	Dolomite	Dolorite	Other (describe)
Please provide a description.						
<i>The site consists of a greyish, sandy and excessively drained soils.</i>						

4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Perennial River	YES	NO✓	UNSURE
Non-Perennial River	YES	NO✓	UNSURE
Permanent Wetland	YES	NO✓	UNSURE
Seasonal Wetland	YES	NO✓	UNSURE
Artificial Wetland	YES	NO✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO✓	UNSURE

(b) Please provide a description.

There is no surface water bodies present on or adjacent to the site.

5. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as **Appendix D** to this report.

(a) Highlight the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category).

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR) ✓	<i>Not Applicable</i>

(b) Highlight and describe the habitat condition on site.

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes etc).
Natural	0%	<i>Not Applicable</i>
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	<i>Not Applicable</i>
Degraded (includes areas heavily invaded by alien plants)	0%	<i>Not Applicable</i>
Transformed (includes cultivation, dams, urban, plantation, roads, etc) ✓	100%	<i>The site does not have any form of biodiversity</i>

(c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened ✓							
		YES	NO ✓	UNSURE	YES	NO ✓	YES	NO✓

(d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The site is presently paved and there are no significant biodiversity features present.

6. LAND USE OF THE SITE

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.

Untransformed area	Low density residential	Medium density residential	High density residential ✓	Informal residential
Retail	Commercial & warehousing ✓	Light industrial ✓	Medium industrial ✓	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility ✓	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe): ✓	<i>The site is currently vacant with a concrete floor</i>			

(a) Please provide a description.

Other than an existing building structure, the site is currently vacant and paved.

7. LAND USE CHARACTER OF SURROUNDING AREA

(a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

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.

Untransformed area	Low density residential	Medium density residential	High density residential✓	Informal residential
Retail✓	Commercial & warehousing✓	Light industrial✓	Medium industrial✓	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility✓	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line✓	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):	Bus Terminal			

(b) Please provide a description, including the distance and direction to the nearest residential area and industrial area.

The site is located within the Beaconvale industrial area. The land use within +/- 500m radius of the site is mainly industrial, commercial and residential (see Figure B2 below).



Figure B2: Land use character of surrounding area

The site is directly adjacent to a college, situated to the north of the site, and is bound by a warehouse for cold storage to the west and further west in Elsies River Industria. Integral Group abuts the site to the east while a paint manufacturing industry is located to the south. The nearest residential area is Parow Valley approximately 150m to the east of the site.

8 SOCIO-ECONOMIC ASPECTS

Describe the existing social and economic characteristics of the community in order to provide baseline information.

The area in which the site falls is classified by the City of Cape Town as Ward 26, which comprise of Avon, Beaconvale, Churchill Estate, Glenlily, Leonsdale, Parow, Parow Valley and Riverton. Based on the 2011 census, the population of Ward 026 was 30 741 and the number of households was 7 936. The population is predominantly Coloured (60.1%). Other communities include white (19.5%), Asian (2.1%) and black people (14.8%).

The unemployment rate of the ward is 14.74% and labour absorption rate is 51.37%. A total of 36% of households have a monthly income of R3 200 or less. In terms of dwellings, 96% of households live in formal dwellings. The majority of the area is completely serviced with piped water inside dwelling (97%), weekly refuse removal (96%), a flush toilet connected to the public sewer system (98%) while 99% use electricity for lighting in their dwellings.

9. HISTORICAL AND CULTURAL ASPECTS

- (a) Please be advised that if section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), is applicable to your proposed development, then you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Section 38 of the Act states as follows: "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, power line, 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."
- (b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), must also be investigated, assessed and evaluated. Section 3(2) states as follows: "3(2) Without limiting the generality of subsection (1), the national estate may include—
- (a) places, buildings, structures and equipment of cultural significance;
 - (b) places to which oral traditions are attached or which are associated with living heritage;
 - (c) historical settlements and townscapes;
 - (d) landscapes and natural features of cultural significance;
 - (e) geological sites of scientific or cultural importance;
 - (f) archaeological and palaeontological sites;
 - (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
 - (h) sites of significance relating to the history of slavery in South Africa;
 - (i) movable objects, including—
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;

(v) objects of decorative or fine art;
 (vi) objects of scientific or technological interest; and
 (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)."

Is section 38 of the National Heritage Resources Act, 1999, applicable to the development?		YES	NO✓
		UNCERTAIN	
If YES, explain:	<i>Not Applicable</i>		
Will the development impact on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999?		YES	NO✓
		UNCERTAIN	
If YES, explain:	<i>Not Applicable</i>		
Will any building or structure older than 60 years be affected in any way?	YES	NO✓	UNCERTAIN
If YES, explain:	<i>Not Applicable</i>		

Please Note: If uncertain, the Department may request that specialist input be provided.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

(a) Please list all legislation, policies and/or guidelines that have been considered in the preparation of this Basic Assessment Report.

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)	DATE (if already obtained):
<i>National Environmental Management Act (Act 107 of 1998)</i>	<i>Western Cape DEA&DP</i>	<i>Environmental Authorisation</i>	<i>To be obtained</i>
<i>National Heritage Resources Act (Act 25 of 1999)</i>	<i>Heritage Western Cape</i>	<i>Comment</i>	<i>The Draft BAR will be sent to HWA for comment</i>
<i>Environment Conservation Act (Act No. 73 of 1989)</i>	<i>Cape Nature</i>	<i>Comment</i>	<i>The Draft BAR will be sent to Cape Nature for comment</i>

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
<i>Guidelines on EIA Regulations 2010</i>	<i>DEA&DP</i>
<i>Guideline on Public Participation (October 2011)</i>	<i>DEA&DP</i>
<i>Guideline on Alternatives (October 2011)</i>	<i>DEA&DP</i>
<i>Guideline on Need and Desirability (October 2011)</i>	<i>DEA&DP</i>
<i>Western Cape Provincial Spatial Development Framework (2009)</i>	<i>DEA&DP</i>
<i>Metropolitan Spatial Development Framework (MSDF)</i>	<i>The City of Cape Town</i>

(b) Please describe how the legislation, policies and/or guidelines were taken into account in the preparation of this Basic Assessment Report.

LEGISLATION / POLICY / GUIDELINE	DESCRIBE HOW THE LEGISLATION / POLICY / GUIDELINE WERE TAKEN INTO ACCOUNT (e.g. describe the extent to which it was adhered to, or deviated from, etc).
<i>National Environmental Management Act (Act 107 of 1998)</i>	<i>This application is being undertaken according to the National Environmental Management Act, 1998.</i>
<i>Guideline on Public Participation (October 2011)</i>	<i>The public participation guideline was consulted to ensure that an adequate public participation process is undertaken.</i>
<i>Guideline on Alternatives (October 2011)</i>	<i>This guideline was consulted to inform the consideration of alternatives.</i>
<i>Guideline on Alternatives (October 2011)</i>	<i>This guideline was consulted to inform need and desirability aspects of the proposed project.</i>
<i>Constitution of the Republic of South Africa (Act 108 of 1996)</i>	<i>Bill of rights (S2) Environmental Rights (S24) – The right to an environment which is not harmful to health and well being Access to information (S32)</i>
<i>National Heritage Resources Act (Act No. 25 of 1999)</i>	<i>All the provisions of the Heritage Resources act were taken into account and adhered during the compilation of the Draft BAR.</i>

Please note: Copies of any permit(s) or licences received from any other organ of state must be attached this report as Appendix E.

SECTION C: PUBLIC PARTICIPATION

The public participation process must fulfil the requirements outlined in NEMA, the EIA Regulations, and if applicable the NEM: WA and/or the NEM: AQA. This Department's *Guideline on Public Participation* (August 2010) and *Guideline on Exemption Applications* (August 2010), both of which are available on the Department's website (<http://www.capegateway.gov.za/eadp>), must also be taken into account.

Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was a deviation that was agreed to by the Department.

1. Were all potential interested and affected parties notified of the application by –			
(a) fixing a notice board at a place conspicuous to the public at the boundary or on the fence of -			
(i) the site where the activity to which the application relates is to be undertaken; and	YES✓	DEVIATED	
(ii) any alternative site mentioned in the application;	YES	DEVIATED	
(b) giving written notice to –			
(i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;	YES	N/A✓	
(ii) the occupiers of the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken;	YES✓	DEVIATED	
(iii) owners and occupiers of land adjacent to the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken;	YES✓	DEVIATED	
(iv) the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES✓	DEVIATED	
(v) the municipality which has jurisdiction in the area;	YES✓	DEVIATED	
(vi) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES✓	DEVIATED	
(vii) any other party as required by the competent authority;	YES✓	DEVIATED	
I placing an advertisement in -			
(i) one* local newspaper; and	YES✓	DEVIATED	
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	YES	DEVIATED	N/A
(d) placing an advertisement in at least one* provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken.	YES	DEVIATED	N/A

* **Please note:** In terms of the NEM: WA and NEM: AQA a notice must be placed in at least two newspapers circulating in the area in which the activity applied for is to be carried out.

2. Provide a list of all the state departments that were consulted:
<i>CoCT Environmental Resource Management</i>
<i>Department of Water Affairs</i>
<i>Heritage Western Cape</i>
<i>Cape Nature</i>
<i>Department of Environmental Affairs and Development Planning: Directorate Waste Management</i>
<i>Department of Transport and Public Works</i>

3. Please provide an overall summary of the Public Participation Process that was followed. (The detailed outcomes of this process must be included in a comments and response report to be attached to the final Basic Assessment Report (see note below) as **Appendix D**).

Public participation will be undertaken in which members of the public will be invited to partake in the EIA process. The steps that will be undertaken during the public participation process are as follows:

- ❖ *A preliminary I&AP database was compiled that consisted occupiers of the property, owners and occupiers of land adjacent to the site, the municipal councilor, local ratepayers association, municipal officials and relevant State Departments as part of the Public Participation Process;*
- ❖ *Notification of I&AP's by:*
 - *Fixing a notice board at the site at a place conspicuous to the public;*
 - *Advertising the project in a local newspaper (An advertisement announcing the proposed project and the availability of the Draft Basic Assessment Report (BAR) for comment was placed in the local newspaper);*
- ❖ *Written notification to I&AP's, and relevant State Departments in the form of information sheet (executive summary of the draft BAR) will also be distributed to identified I&APs for comment, via fax, post or e-mail;*
- ❖ *A copy of the Draft Basic Assessment Report including all alternatives being considered will be made available in the local library and/or another appropriate venue for viewing and commenting purposes;*
- ❖ *Allowing a 40 day commenting period, during which I&AP's can send comments to Frontline Safety Health Environmental Consultants at the contact details provided;*

All comments received on the information sheet and draft BAR will be addressed and captured in a Comments and Responses report that will be appended to the final BAR.

Please note:

Should any of the responses be "No" and no deviation or exemption from that requirement was requested and agreed to /granted by the Department, the Basic Assessment Report will be rejected.

A list of all the potential interested and affected parties, including the organs of State, notified and a list of all the register of interested and affected parties, must be submitted with the final Basic Assessment Report. The list of registered interested and affected parties must be opened, maintained and made available to any person requesting access to the register in writing.

The draft Basic Assessment Report must be submitted to the Department before it is made available to interested and affected parties, including the relevant organs of State and State departments which have jurisdiction with regard to any aspect of the activity, for a 40-day commenting period. With regard to State departments, the 40-day period commences the day after the date on which the Department as the competent/licensing authority requests such State department in writing to submit comment. The applicant/EAP is therefore required to inform this Department in writing when the draft Basic Assessment Report will be made available to the relevant State departments for comment. Upon receipt of the Draft Basic Assessment Report and this confirmation, this Department will in accordance with Section 24O(2) and (3) of the NEMA request the relevant State departments to comment on the draft report within 40 days.

All comments of interested and affected parties on the draft Basic Assessment Report must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** to the final Basic Assessment Report. If necessary, any amendments in response to comments received must be effected in the Basic Assessment Report itself. The Comments and Responses Report must also include a description of the public participation process followed.

The final Basic Assessment Report must be made available to registered interested and affected parties for comment before submitting it to the Department for consideration. Unless otherwise indicated by the Department, a final Basic Assessment Report must be made available to the registered interested and affected parties for comment for a minimum of 21-days. Comments on the final Basic Assessment Report does not have to be responded to, but the comments must be attached to the final Basic Assessment Report.

The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants must also be submitted as part of the public participation information to be attached to the final Basic Assessment Report as **Appendix D**.

Proof of all the notices given as indicated, as well as of notice to the interested and affected parties of the availability of the draft Basic Assessment Report and final Basic Assessment Report must be submitted as part of the public participation information to be attached to the final Basic Assessment Report as **Appendix D**.

SECTION D: NEED AND DESIRABILITY

Please Note: Before completing this section, first consult this Department's Guideline on Need and Desirability (August 2010) available on the Department's website (<http://www.capegateway.gov.za/eadp>).

1. Is the activity permitted in terms of the property's existing land use rights?	YES√	NO	Please explain
<i>The proposed development is permitted in terms of the property's existing land use rights.</i>			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES√	NO	Please explain
<p><i>The activity is in line with the PSDF, whose purpose is to: be the spatial expression of the Provincial Growth and Development Strategy (PGDS); guide municipal Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs); and help prioritise and align investment and infrastructure plans among other objectives.</i></p> <p><i>The application is particularly directed at the following normative principles of the PSDF: That settlement growth and economic development opportunities should be channelled into activity corridors and nodes adjacent to or linked to the main growth centres as is the case with Beaconvale/Elsies River/Parow industrial areas.</i></p>			
(b) Urban edge / Edge of Built environment for the area	YES√	NO	Please explain
<p><i>The proposed activity falls within the urban edge. The proposed activity is in line with the main function of the urban edge: a tool to limit sprawl and the outward growth of urban areas, in favour of densification and infill development, to ensure more efficient use of resources and land within the urban area. The proposed activity is in line with the objective of establishing a strong urban edge that would create an urban environment offering a wide range of services.</i></p>			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES√	NO	Please explain
<p><i>The Metropolitan Spatial Development Framework (MSDF) was compiled to "guide the form and location of physical development in the Cape Metropolitan Region on a metropolitan scale" and is based on a vision of a "well managed, integrated metropolitan region in which development is intensified, integrated and sprawl-contained". The Framework seeks to redress the city's sprawling growth patterns by focusing on development intensification along a series of activity corridors.</i></p> <p><i>According to the MSDF guidelines on urban integration (1996), planning and development should seek to integrate urban areas by promoting new development in areas close to existing economic, social and other infrastructure, such as the proposed LPG storage and distribution depot. The proposal is in line with the MSDF which aims to promote environmental sustainability, creation of quality urban environments, containing urban sprawl, urban integration and redressing imbalances.</i></p>			
(d) Approved Structure Plan of the Municipality	YES√	NO	Please explain
<p><i>The purpose of the municipal structure plan is to promote the order of the area and the welfare of its community by co-ordinating various developments (i.e. listing general guidelines for the spatial development) and creating an urban structure (i.e. to create an urban structure that is both aesthetic and functional).</i></p> <p><i>The proposed activity is in line with the approved structure plan of the local municipality and has positive impacts in the form of better positioning in terms of good urban planning as it complements the built up industrial and commercial context of activities located in proximity.</i></p>			

(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO✓	Please explain
The environmental management frameworks are aimed at (a) promoting sustainability; (b) securing environmental protection; and (c) promoting cooperative environmental governance. The approval of proposed activity would not compromise the integrity of the existing environmental management priorities for the area. Based on the anticipated impacts, the development can be justified in terms of sustainability.			
(f) Any other Plans (e.g. Guide Plan)	YES✓	NO✓	Please explain
Cape Peninsula Metropolitan Guide Plan (1988): The Urban Structure Plan (1988) also referred to as the "Cape Metropolitan Area Guide Plan Volume 1: Peninsula" provides "guidelines for the future spatial development of the Cape Peninsula" by the designation of broad land uses for all land within the City area.			
In terms of the broad land uses, the proposed activity will comply with the guidelines set out in the Urban Structure Plan.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES✓	NO	Please explain
The application is particularly directed at the Shared Economic Growth and Development strategic focus area identified by the IDP. The proposed development is in line with the SDF's vision to develop underutilized land.			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?	YES✓	NO	Please explain
The proposed development is considered desirable. The proposed development will significantly improve the current character of the disused property and provide many economic opportunities.			
5. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).	YES✓	NO	Please explain
10. How will the activity of the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	NO✓	Please explain
The development will create additional employment opportunities during construction and operational phases. There are no sensitive natural and cultural areas on the site or in the immediate vicinity.			
The proposed development will have a negligible impact on the environment as no potentially sensitive areas or ecosystems and no heritage worthy resources are found on site or in the immediate vicinity.			
6. Are the necessary services with adequate capacity currently available (at the time of development)?	YES	NO✓	Please explain
The development is not expected to impact negatively on the community's health and wellbeing as only a minimal volume of water would be required for construction activities. The appointed contractor would be responsible for providing water. A minimal volume of solid waste would be taken to the local municipal landfill. It is not anticipated that any other municipal services would be required to undertake the proposed project. However, Written confirmation from the Municipality that there is sufficient capacity for water and effluent. The following measures will be implemented amongst others to minimize noise generation: Working hours will be restricted to daily normal working hours.			
The surrounding area is fully serviced and the development will connect into the existing services. All noise and sounds generated by plant or machinery must adhere to SABS 0103 specifications for the maximum permissible noise levels for residential areas.			
9. Do location factors favour this land use (associated with the activity applied for) at this place (in relation to the context of the surrounding area, the site and the site within its broader context)?	YES	NO✓	Please explain
All plant and machinery are to be fitted with adequate silencers. No sound amplification equipment such as sirens, loud hailer or hooters may be used on-site, after normal working hours.			
The proposed development is in line with the objectives of the National Noise Management Policy and is therefore considered to be favourable for this location.			
Not Applicable, except in emergencies.			

12. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	YES	NO✓	Please explain
<i>The site is almost completely surrounded by industrial developments. The site is not ideal for residential purposes or any other land use, and therefore, no unacceptable loss of opportunities such as housing is expected.</i>			
13. What will the cumulative impacts (positive and negative) of the proposed land use associated with the activity applied for, be?	YES✓	NO	Please explain
<p><i>Negative cumulative impacts from the implementation of the proposed development include:</i></p> <p>Traffic: Additional traffic comprising of bulk truck carrying LPG diesel will result from the proposed development;</p> <p>Services: An impact on municipal services such as water, electricity and the sewerage system is expected as a result of the proposed development. This, however, is considered to be of low significance due to the nature of the proposed activity. Furthermore, the municipality will accommodate the additional demand on infrastructure.</p> <p>Fire risk: This is as a result of handling dangerous goods such as the LPG diesel. Other industries in proximity may also be handling dangerous substances which when aggregated pose the risk of fire outbreak.</p>			
14. Is the development the best practicable environmental option for this land/site?	YES✓	NO	Please explain
<i>Considering the desirability for LPG storage facilities in the area, the current state of the disused nature of the site and possible noise from the busy national roads in proximity, it would be best to develop on this piece of land, than to develop the facilities on a better quality piece of land that has high conservation value and or other functional advantages.</i>			
15. What will the benefits be to society in general and to the local communities?			Please explain
<p><i>Benefits for society in general</i></p> <ul style="list-style-type: none"> ❖ Mitigate negative effects of underutilized property (issues such as illegal dumping, squatting, and maintenance costs). <p><i>Benefits for the local community</i></p> <ul style="list-style-type: none"> ❖ In the short term the construction phase of the proposed project would also create some employment opportunities for members of the local community. In addition, the activity will produce additional employment opportunities in the long term during the operational phase. This is of importance as there is a relatively high level of unemployment in the nearby high density residential areas, especially in the informal settlement in proximity. 			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
<i>None</i>			
(17) Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account:			
<p><i>The general objectives of the Integrated Environmental Management as set out in section 23 of NEMA have been taken into account through the following:</i></p> <ul style="list-style-type: none"> ❖ The installation of potential legal impacts of the activity is identified and potential positive impacts will be identified by cultural heritage impact assessment, and the impact of the activity on the environment will be assessed and the impacts will be mitigated and the impacts will be managed. The impacts of the activity on the environment will be assessed and the impacts will be managed. The impacts of the activity on the environment will be assessed and the impacts will be managed. ❖ The general objectives of integrated environmental management as set out in section 23 of NEMA have been taken into account through the following: 			
(18) Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account:			
<i>The principles of environmental management as set out in section 2 of NEMA have been taken into</i>			

SECTION E: ALTERNATIVES

Please Note: Before completing this section, first consult this Department's *Guideline on Alternatives* (August 2010) available on the Department's website (<http://www.capegateway.gov.za/eadp>).

"Alternatives", in relation to a proposed activity, means different means of meeting the general purposes and requirements of the activity, which may include alternatives to –

- (a) the property on which, or location where, it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

The NEMA prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in NEMA and the National Environmental Management Principles set out in NEMA are taken into account; and
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management is, *inter alia*, to "identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management" set out in NEMA.

1. In the sections below, please provide a description of any identified and considered alternatives and alternatives that were found to be feasible and reasonable.

Please note: Detailed written proof the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exist.

- (a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Alternative areas within the Beaconvale Industria were investigated for the proposed activity. In determining the most appropriate site and most feasible activity (LPG storage facilities), the following was taken into consideration:

- ❖ *The location in relation to the existing industrial area of Beaconvale; and*
- ❖ *Land use of the properties abutting the site and the surrounding area*

The proposed property is deemed the preferred option based on the available area for development and the fact that the site is serviced. The proposed property is located within the industrial area, and is owned by First Fuel.

Besides, the proponent does not have an alternative property on which the proposed activity can be undertaken. Site alternatives are therefore not being assessed in this report.

- (b) Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

The property on which the proposed development is to be undertaken is located within the industrial area, and the proposed activity is of industrial nature. The LPG storage facility is therefore considered the best option for the site due to the location and nature of land use in proximity. Activity alternatives are not being assessed in this report.

The only feasible alternative to the proposed development which could result in lower impacts is the No Go Option. If this option is implemented, the benefits of the proposed project would not be realised.

- (c) Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Three development layout plans (Alternative 1, Alternative 2 and Alternative 3) will be considered.

Alternative 1 (Appendix B1)

The LPG cylinder storage and sorting area 1047m² in extent is centered in the property making the vehicle turning circle around the perimeter of the cylinder storage area. The safety distances for LPG Bulk Installations (in terms of the South African National Standards 10087 – 3:2010) are met with the building of the correct 9" – min 2hr fire rated fire wall along the northern boundary.

An area set aside for office component (220m² in extent) is located north of the site, and warehouse/storage buildings confined to the north west of the property covering an area of 240m² in extent. The safety distance for building to boundaries is met according to the deeds of the property, and all safety distance from inhabited building space to the relevant LPG points of reference.

The two 90m LPG storage tanks are placed along the southern most boundary of the property. The safety distance for placing the bulk tanks and the boundary with paint manufacturing industry (Olympia Paints) are met, with use of fire suppression equipment, sprinkler system, placed above the storage tanks. The alternative is to clad the tanks with the correct fire suppressing materials. Additionally, a deluge (water sprinkler) system would be fitted close to the bulk tanker filling adapter making the LPG tanker making the delivery be stationary under this system.

The shortcomings of this alternative are that the positioning of the two 90m LPG storage vessels next to a paint manufacturing industry exacerbates the fire risk. The possibility of storing flammable liquids at Olympia Paints is high. Though the water or cladding system recommended for the proposed activity is designed to prevent a major disaster, it would be better to relocate the bulk LPG tanks further away from the southern neighbor.

Another demerit of Alternative 1 is that view from the offices (north of the property) would have no visuals of the LPG storage tanks. For safety reasons, the condition of the bulk storage tanks, loading and offloading activities need to be visible as much as possible. In addition, the design of Alternative 1 where the office component and storage buildings are placed north of the site would impede the running of municipal services, which have cost implications.

Alternative 2 (Appendix B2)

In this alternative, the LPG cylinder sorting area 540m² in extent is positioned in the middle of the property. An area 390m² in extent with a raised platform is set aside for the LPG cylinder storage north east of the property. This alternative incorporates a new 4m fire wall along the already existing 4 m wall along the northern boundary of the Site. The safety distances are met with the building of the correct 9" – min 2hr fire rated fire wall along the northern boundary.

The warehouse component (240m² in extent) and office buildings (220m² in extent) are positioned to the northwest and southwestern most parts of the property respectively. The safety distance for

building to boundaries is met according to the deeds of the property, and all safety distance from inhabited building space to the relevant LPG points of reference.

The two 90m LPG storage vessels are placed along the western most boundary of the property, between the warehouse component and the office component. The safety distance for placing the bulk tanks and the western boundary are met, with use of fire suppression equipment, sprinkler system, placed above the storage tanks or cladding the tanks with the correct fire suppressing materials or use of a deluge system would be fitted close to the bulk tanker filling adapter making the LPG tanker making the delivery be stationary under this system.

The disadvantage of this alternative relates to the positioning of the two 90m LPG storage vessels on the western boundary where there is a neighbouring warehouse for cold storage built as close as 1.5 meters away from the boundary wall. A possibility of a fire emanating from the warehouse renders the alternative not plausible.

A further disadvantage of Alternative 2 is that the split of municipal services to the northern and southern parts of the property, which would have cost implications.

Alternative 3 Preferred Alternative (Appendix B3)

In this alternative, the storage area of full LPG cylinders and cylinder filling equipment is positioned in an area covering 719 m² in extent at the north western portion of the property. The intention to make use of the already existing 4 metre boundary walls north of Site, which will be reinforced by building a new 4m fire wall of block bricks, compacted with concrete inside. Below the cylinder storage area, along the western boundary, is a section earmarked for empty cylinder returns and high pressure washing bay. Below the washing bay is an area set aside for the construction of cylinder cold works and storage. The central portion of the property has an area of 460m² designated for sorting cylinders some needing revalidation as well as sorting cylinder belonging to other companies. The sorting area would be protected by bollards.

The sorting area is designed in such a way that easy vehicle turning circle around the perimeter of the area is possible. The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) are met with the building of the correct 9” – min 2hr fire rated fire wall along the northern and western boundaries.

The office component and cylinder cold works and storage buildings are placed in close proximity to each other in the south west portion of the property. The safety distance for building to boundaries is met according to the deeds of the property, and all safety distance from inhabited building space to the relevant LPG points of reference.

Having considered safety and efficient operations of proposed activity, the two 90m LPG above ground, horizontal storage tanks are placed at the north eastern most portion of the property. The safety distance for placing the bulk tanks and the northern and eastern boundaries are met, with use of fire suppression equipment, sprinkler system, placed above the storage tanks. The alternative is to clad the tanks with the correct fire suppressing materials. Additionally, a deluge (water sprinkler)

system would be fitted close to the bulk tanker filling adapter making the LPG tanker making the delivery be stationary under this system.

The advantages of this alternative are that:

- ❖ *The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) are met in some instances by erecting correct 9” – min 2hr fire rated fire wall along the northern and western boundaries. The safety distances would also be met by making use of the correct or prescribed water deluge or tank cladding systems.*
- ❖ *Truck access and adequate space for maneuver is provided in this alternative. This makes bulk tanker offload and loading of cylinders procedures efficient.*
- ❖ *In terms of safety the two 90m LPG storage tanks are placed at the safest location, north east of the property.*
- ❖ *The LPG cylinder storage and cylinder filling procedures are located in the best possible area, with appropriate erection of fire walls along LPG cylinder filling and storage.*
- ❖ *The office component and cylinder cold works and storage buildings are placed in close proximity to each other for easy provision of municipal services and low cost implications.*

Based on the above disadvantages of Alternatives 2 and 3, only the preferred Alternative 1 is deemed feasible and assessed further.

(d) Technology alternatives (e.g. to reduce resource demand and resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Technology alternatives are not being assessed in this report.

(e) Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Operational alternatives are not being assessed in this report.

(f) the option of not implementing the activity (the No-Go Option):

The No-Go Option will be considered and evaluated as an alternative. Also referred to as the “Do-Nothing option” this refers to Fuel First not construction the LPG storage facility on Erf 9834 Beaconvale. In this scenario, the potential environmental and social impacts will not occur and the status quo will be maintained. However, should this project not proceed, the proposed site will remain undeveloped with undesirable visuals. In addition, no job opportunities will be created during the construction or operational phases.

The No-Go Option is thus not deemed feasible, but is nevertheless assessed, as required in terms of NEMA and its EIA Regulations.

(g) Other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No other alternatives have been considered to form part of the proposed project.

(h) Please provide a summary of the alternatives investigated and the outcomes of such investigation:

Please note: If no feasible and reasonable alternatives exist, the description and proof of the investigation of alternatives, together with motivation of why no feasible or reasonable alternatives exist, must be provided.

Three alternative layout plans (Alternative 1, 2 and 3) and the No Go option were considered. The outcomes of the investigation into these alternatives are summarised in Table E1 below.

Table E1: Advantages and Disadvantages of Alternative Layout Plan

ALTERNATIVE	ADVANTAGES	DISADVANTAGES
The No-Go Option	<i>The potential negative environmental impacts would not occur</i>	<i>Potential positive environmental and social impacts would not be realised</i> <i>Site will remain undeveloped with undesirable visuals.</i>
Alternative 1	<i>The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) are met</i>	<i>Positioning of the two 90m LPG storage tanks exacerbates the fire risk from southern neighbour.</i> <i>Obstructed view from the offices to the LPG storage tanks</i> <i>Office component and storage buildings location would impede provision of municipal services, which have cost implications.</i>
Alternative 2	<i>The safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010) are met</i>	<i>The two 90m LPG storage vessels exacerbate the fire risk from western neighbor</i> <i>Split of municipal services to the northern and southern parts of the property, which would hinder service provision and have cost implications.</i>
Alternative 3 (Preferred)	<i>The safety distances for LPG Bulk Installations (SANS 10087–3:2010) are met</i> <i>Easy truck access and adequate space for maneuver.</i> <i>In terms of safety the two 90m LPG storage tanks are placed at the safest location</i> <i>The LPG cylinder storage and cylinder filling procedures are located in the best possible area</i> <i>The office component and cylinder cold works and storage buildings are placed in close proximity to each other for easy provision of municipal services</i>	

SECTION F: IMPACT ASSESSMENT, MANAGEMENT, MITIGATION AND MONITORING MEASURES

Please note: The information in this section must be duplicated for all the feasible and reasonable alternatives (where relevant).

1. PLEASE DESCRIBE THE MANNER IN WHICH THE DEVELOPMENT WILL IMPACT ON THE FOLLOWING ASPECTS:

(a) Geographical and physical aspects:

Infrastructure/service impact(s):

The Site lies within a fully serviced industrial area. Due to the size and nature of the proposed activity, it is not likely to impact on the existing municipal services by placing a burden on them.

Traffic and access:

It is not anticipated that the development will significantly impact on the flow of traffic.

Visual Impacts:

The proposed development would have a short-term visual impact during the construction phase due to the presence of construction machinery, material stockpiles, and associated dust emissions. The construction phase visual impact would be reduced by incorporating measures for visual screening (e.g. using shade cloth complemented by the existing perimeter wall), and litter and dust control as outlined in the EMP.

With aesthetically and visually biased design, the development may contribute positively towards the character of the surrounding area. The proposed development is expected to compliment and visually enhance the surrounding area as the proposed activity will conform to the existing structure plan of the area.

(b) Biological aspects:

Will the development have an impact on critical biodiversity areas (CBAs) or ecological support areas (CSAs)?	YES	NO✓
If yes, please describe:		
No CBA's and ESAs have been identified on the site		
Will the development have on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?	YES	NO✓
If yes, please describe:		
Not applicable		
Will the development have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?	YES	NO✓
If yes, please describe:		
Not applicable		
Please describe the manner in which any other biological aspects will be impacted:		
Not applicable		

(c) Socio-Economic aspects:

What is the expected capital value of the activity on completion?	<i>Approximately R 18,000 000.00</i>
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the activity?	<i>Approximately R 9,000 000.00</i>

Will the activity contribute to service infrastructure? <i>The activity will contribute to service infrastructure by developing smaller client installation sites within the private sector. The smaller clients will be supplied by the depot infrastructure, which would amount to millions of Rand investment in the medium to long term.</i>	YES✓	NO
How many new employment opportunities will be created in the construction phase of the activity?	<i>Approximately 40 new jobs</i>	
What is the expected value of the employment opportunities during the construction phase?	<i>Approximately R 2,600 000.00</i>	
What percentage of this will accrue to previously disadvantaged individuals?	<i>100%</i>	
How will this be ensured and monitored (please explain): <i>The developer and employees are from a previously disadvantaged disposition. It is the desire of the developer to engage people from a previously disadvantaged background during the construction phase. The appointed main contractor would implement WCG's standard Procurement Policy. This would be specified in the tender documentation and monitored by WCG.</i>		
How many permanent new employment opportunities will be created during the operational phase of the activity?	<i>Between 15 to 25 new jobs</i>	
What is the expected current value of the employment opportunities during the first 10 years?	<i>Approximately R 18,000 000.00</i>	
What percentage of this will accrue to previously disadvantaged individuals?	<i>65 to 75%</i>	
How will this be ensured and monitored (please explain): <i>According to the operations norms of the industry, the management is structured in such a way that top managers are few and local labour is used. The developer will ensure that local labour force will be from a previously disadvantaged group. The developer has already identified managers; depot manager, sales managerless and logistics manager are all of a previously disadvantaged disposition.</i>		
Any other information related to the manner in which the socio-economic aspects will be impacted:		
Jobs will be created during the construction and operational phase thus uplifting the community		

(d) Cultural and historic aspects:

Both the subject property and the context are without any identified cultural significance. The proposed activity will not impact on any built or landscape heritage resources. This draft report will be submitted to Heritage Western Cape for comment.

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the activity produce waste (including rubble) during the construction phase?	YES✓	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type? <i>A minimal volume of construction waste in the form of used cement bags, broken material, rubble/general construction waste, etc. would be generated during the construction phase. The estimated quantity is:</i>	<i>±500 m³</i>	
Will the activity produce waste during its operational phase?	YES✓	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type? <i>Sewage and general refuse, hazardous waste in the form of spilt fuel and/or oil spills collected in drip trays and contaminated soil resulting from accidental spills. The estimated quantity is:</i>	<i>±50 m³</i>	

Where and how will the waste be treated / disposed of (describe)?		
<p><i>The Contractor would be responsible for the establishment of a solid waste control and removal system. Hazardous waste would also be collected and disposed at a registered hazardous waste site. An integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, reuse and recycling of materials.</i></p>		
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the development?		
<p>Construction Phase:</p> <p><i>All solid waste generated (exact quantities are not known at this stage) will be removed by the contractor and disposed of at a registered landfill site. The estimated quantity is $\pm 500 \text{ m}^3$.</i></p> <p>Operational Phase:</p> <p><i>Hazardous waste in the form of spilt fuel and/or oil spills collected in drip trays and contaminated soil resulting from accidental spills will be collected and disposed of at an approved hazardous landfill site. The estimated quantity is $\pm 50 \text{ m}^3$.</i></p>		
Has the municipality or relevant authority confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? If yes, provide written confirmation from Municipality or relevant authority	YES	NO ✓
<i>Confirmation is being obtained from the relevant Municipal Department</i>		
Will the activity produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	YES	NO ✓
If yes, has this facility confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility:	YES	NO
<i>Not applicable</i>		
Does the facility have an operating license? (If yes, please attach a copy of the license.)	YES	NO
Facility name:		
Contact person:		
Postal address:		
	Postal code:	
Telephone:	Cell:	
E-mail:	Fax:	

Describe the measures that will be taken to reduce, reuse or recycle waste:		
<p><i>During the construction phase the Contractor shall be responsible for the establishment of a solid waste control and removal system (see Construction EMP in Appendix E). An integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, reuse and recycling of materials. As per the Development Control and Design Manual for the development separation of waste at source to assist in the recovery of recyclable materials is encouraged.</i></p>		

(b) Emissions into the atmosphere		
Will the activity produce emissions that will be disposed of into the atmosphere?	YES ✓	NO
If yes, does it require approval in terms of relevant legislation?	YES	NO ✓
<p><i>Dust and noise would be generated during the construction phase as a result of the earthworks component of the proposed project. The contractor shall ensure that the generation of dust is minimised and shall implement a dust control programme (e.g. wetting of areas being disturbed) to maintain a safe working environment and minimise nuisance to the surrounding properties. The contractor shall ensure that</i></p>		

<p><i>exposed soil and material stockpiles are adequately protected against the wind (e.g. covering of material stockpiles, etc.). These activities would be managed in terms of the requirements of the EMP (refer to Appendix E). The contractor shall also be familiar with and adhere to any regulations and by-laws regarding the generation of noise and hours of operation. Permits shall be required if the contractor deviates from local by-laws and/or regulations of the local authority. Surrounding landowners shall be notified in advance when blasting is to occur.</i></p>		
<p>Describe the emissions in terms of type and concentration and how it will be treated/mitigated: Not Applicable</p>		

3. WATER USE

Please indicate the source(s) of water for the activity by ticking the appropriate box(es)

<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Water board	<input type="checkbox"/> Groundwater	<input type="checkbox"/> River, Stream, Dam or Lake	<input type="checkbox"/> Other	<input type="checkbox"/> The activity will not use water
<p>If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:</p> <p>Not Applicable m³</p>					
<p>Please provide proof of assurance of water supply (eg. Letter of confirmation from municipality / water user associations, yield of borehole) To be obtained from the relevant Municipal Department.</p>					
<p>Does the activity require a water use permit / license from DWAF?</p>					<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>If yes, please submit the necessary application to Department of Water Affairs and attach proof thereof to this application. Not Applicable</p>					
<p>Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:</p> <p>Due to the nature of the development, the water demand is not expected to be significantly High. However, measures to reuse or recycle water include the use of water saving fittings (e.g. low-flow showerheads, dual flush toilets, recycling of grey water, etc.) is encouraged in the Architectural guidelines and requirements. All water tanks and water trucks would be maintained in a good working condition to ensure that no unnecessary water leaks occur.</p>					

4. POWER SUPPLY

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

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

5 ENERGY EFFICIENCY

<p>Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:</p> <p>Energy efficiency measures will be taken into account during the design phase of the project. The following areas will be evaluated as part of the elements mentioned above as per Eskom's Energy Efficiency Specification:</p> <p>Lighting</p> <ul style="list-style-type: none"> No incandescent or other inefficient lighting technologies may be used. The most efficient lamp must be used to attain the required levels of illumination.
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- *Occupation sensors must be utilized where practically possible.*
- *Automatic lighting control systems with relevant occupancy sensors to be deployed in low traffic building areas such as stairwells, store areas and underground secure parking areas.*
- *Non occupied space - lighting to be put off to conserve electricity.*
- *Use daylight whenever possible in lieu of artificial light.*
- *External lighting for pathways, pedestrian areas etc to deploy renewable solar lighting where ever practical to do so.*
- *All relevant new building codes of practice and health and safety legislation to be fully adhered to.*

Electrical appliances

- *All electrical appliances to be SASS approved.*
- *Electronic equipment such as computers, computer peripherals photocopying machines to be switched OFF at night and other times when not in use, when safe and efficient to do so.*
- *All heavy duty electrical appliances that require periodic servicing and maintenance, according to manufacturers' instructions, must be covered with an appropriate service contract.*

HVAC

- *Employ only high efficiency HVAC systems and make use of occupancy sensors where practical.*
- *Make use of most-efficient HVAC control systems to create optimum working environment using minimum energy.*
- *Ensure new HVAC plant have regular maintenance and service contracts in place with professional service companies.*

Water-heating

- *Employ solar water heating and heat pump technologies only.*
- *Insulate hot water pipes and hot water storage tanks.*
- *Properly functioning thermostatic controls are a core feature of all hot water systems and must be properly maintained*
- *Thermostats must be set at the most efficient level.*
- *Low flow shower heads must be used, where applicable.*

High-efficiency motors

- *High-efficiency motors are available up to 90kW rating and these must be used in all applications of 90kW or less.*
- *Variable speed drives (VSD) should be used in all parts of the process where output and/or quality of product will not be compromised.*

Compressed Air

- *Employ a compressor load management systems if 2 or more compressors are to be used.*
- *Design pneumatic systems to minimize losses and wastage.*
- *Where practical and if alternative more efficient technologies / tools exist, preference should be given to these over pneumatic applications.*

Buildings

- *Insulate walls, ceilings and roofs.*
- *Increase light reflectance on walls and ceilings.*
- *Use daylight whenever possible in lieu of artificial light.*
- *Employ a load management system to interrupt non-essential load when possible.*
- *Use energy efficient glass or 3M film and shade windows from direct sun.*
- *Design the electrical installation to ensure that non-essential loads are grouped on the same circuits. This will facilitate future remote shedding of these non-essential circuits by the distributor (using smart meter technologies)*
- *Where possible, orientate the building to maximize energy efficiency.*

Process efficiency

- *Avoid the use of electricity in any thermal process application, unless only possible with an electrical technology.*
- *Optimise process to ensure maximum efficiency; benchmark against best practices.*
- *Where possible, waste heat must be recovered and used elsewhere in the process.*
- *Prior to ordering manufacturing equipment, where possible, procure machinery which uses forms of energy other than electricity.*

Renewable Energy

- *Any opportunity to use renewable forms of energy must be used.*
- *Renewable energy may be used alone or in combination with limited electricity top up for various end-use applications. Examples include solar hot water systems and solar lighting.*

The Development Control and Design Manual further recommends the following alternative energy and building systems guidelines and requirements.

- *Use passive energy design for cooling, and solar and alternative energy sources. These systems may be expressed appropriately or incorporated into the building design*
- *Design and position buildings to take account of heat loading, sun orientation and aspects relating to solar radiation, i.e. passive thermal design*
- *Maximise the use of natural lighting and natural ventilation through the provision of atriums, fanlights, courtyards, etc.*
- *Use roofing materials that reduce solar gains, and insulate buildings to prevent heat loss in winter and heat gain in summer*
- *Use water saving fittings (e.g. low-flow showerheads, dual flush toilets, recycle grey water)*
- *Use energy efficient equipment, solar heating, electricity, & energy efficient lighting systems*

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

- *Alternate energy sources will be taken into account during the design phase of the project.*
- *Any opportunity to use renewable forms of energy must be used.*
- *Renewable energy may be used alone or in combination with limited electricity top up for various end-use applications (e.g. use of solar hot water systems and solar lighting).*

6. DESCRIPTION AND ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS PRIOR TO AND AFTER MITIGATION

Please note: While sections are provided for impacts on certain aspects of the environment and certain impacts, the sections should also be copied and completed for all other impacts.

- (a) **Impacts that may result from the planning, design and construction 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 planning, design and construction phase.**

Potential impacts on the geographical and physical aspects:	
Nature of impact:	<i>No geographical and physical impacts are expected during the construction phase.</i>

Potential impact on biological aspects:	
Nature of impact:	<i>The activity is not expected to have any impact on biological aspects on the site</i>

Potential impact on cultural-historical aspects:	
Nature of impact:	<i>No cultural-historical impacts are expected during the construction phase.</i>

Potential impacts on geographical and physical aspects:	Traffic Issues: Inconvenience to road users
Nature of impact:	<i>Construction would result in increased vehicle trips, which could have a negative impact on existing traffic movement on the Norton Street</i>
Extent and duration of impact:	<i>Local; Short term</i>
Probability of occurrence:	<i>Low probability</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Low (Negative)</i>
Cumulative impact prior to mitigation:	<i>Low (Negative)</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>
Degree to which the impact can be mitigated:	<i>Not necessary as the impact is insignificant</i>
Proposed mitigation:	<ul style="list-style-type: none"> <i>The Contractor must ensure that during the construction phase adequate traffic accommodation and safety measures (as appropriate) are put in place along the Norton Road and other roads in the vicinity of the site.</i> <i>Provide sufficient signage to warn road users of the presence of construction works and of traffic arrangements.</i>
Cumulative impact post mitigation:	<i>Low (Negative)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Potential dust impacts	Construction Dust Impacts
Nature of impact:	<i>Dust would be generated during the bulk earthworks component of the proposed project. As the closest residential houses (Parow Valley) are approximately 150 away from the site, dust is less likely to be a</i>

	<i>problem for residences to the East.</i>
Extent and duration of impact:	<i>Local; Short term</i>
Probability of occurrence:	<i>Probable</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Very low</i>
Cumulative impact prior to mitigation:	<i>Low Negative</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low Negative</i>
Degree to which the impact can be mitigated:	<i>High</i>
Proposed mitigation:	<ul style="list-style-type: none"> • <i>Shade cloth may be used to avoid windblown dust from sand piles.</i> • <i>The Contractor must ensure that the generation of dust is minimised by implementing a dust control programme (e.g. watering).</i> • <i>The Contractor must ensure that exposed soil and material stockpiles are adequately protected against the wind (e.g. water spray vehicles, covering of material stockpiles, etc.).</i> • <i>The attached EMP will detail dust control measures. See Appendix E</i>
Cumulative impact post mitigation:	<i>Low (Negative)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Potential noise impacts:	Construction Noise Impacts
Nature of impact:	<i>Noise originating from all forms of construction, additional vehicles the Norton Street, construction vehicle and noise impact from machinery and plant during construction. Construction activities (e.g. piling, construction vehicles, concrete pouring, excavations, etc.) would increase noise levels in the area.</i>
Extent and duration of impact:	<i>Local; Short term</i>
Probability of occurrence:	<i>Probable</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Negligible</i>
Cumulative impact prior to mitigation:	<i>Low - negative</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>
Degree to which the impact can be mitigated:	<i>Medium</i>
Proposed mitigation:	<p><i>Noise mitigation measures are dealt with in the EMP. The following measures will be implemented amongst others:</i></p> <ul style="list-style-type: none"> • <i>Working hours will be restricted to daily normal working hours.</i> • <i>All noise and sounds generated by plant or machinery must adhere to SABS 0103</i>

	<p><i>specifications for the maximum</i></p> <ul style="list-style-type: none"> • <i>Permissible noise levels for industrial areas.</i> • <i>All plant and machinery are to be fitted with adequate silencers.</i> • <i>No sound amplification equipment such as sirens, loud hailers or hooters may be used on site, after normal working hours, except in emergencies.</i> • <i>The provisions of SABS 1200A Sub clause 4.1 regarding “built-up areas” shall apply to all areas within audible distance of residents.</i>
Cumulative impact post mitigation:	<i>Low - negative</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>

Potential visual impacts:	Potential Visual Impacts Of The Development:
Nature of impact:	<i>Construction activities would also have a temporary visual impact due to the presence of heavy construction vehicles, material stockpiles as well as earthwork activities and associated dust emissions.</i>
Extent and duration of impact:	<i>Local; short-term</i>
Probability of occurrence:	<i>Highly probable</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>None</i>
Cumulative impact prior to mitigation:	<i>Low</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low to medium</i>
Degree to which the impact can be mitigated:	<i>Low</i>
Proposed mitigation:	<ul style="list-style-type: none"> • <i>Visual impact mitigation measures will be dealt with in the EMP</i> • <i>The site must be clean and tidy at all times.</i> • <i>No stockpiles may exceed 2m in height.</i> • <i>Visual screening (e.g. using shade cloth to screen the construction site, equipment and materials). Ensure that exposed areas and material stockpiles are adequately screened.</i> • <i>Implement litter control measures.</i> • <i>Keep lighting levels low, including all external lighting, where practical.</i> • <i>Outside lighting should be limited with street lighting not leaking beyond the property boundaries.</i>
Cumulative impact post mitigation:	<i>None</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Very Low (Negative)</i>

Potential impacts on the socio-economic aspects:	Employment
Nature of impact:	<i>The proposed project would result in approximately 40 new employment opportunities during the construction phase. An expected value of R2.6 million of employment opportunities will be created, with approximately most of which will accrue to previously disadvantaged individuals</i>
Extent and duration of impact:	<i>Local; Short term</i>
Probability of occurrence:	<i>Definite</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>NA</i>
Cumulative impact prior to mitigation:	<i>NA</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (positive)</i>
Degree to which the impact can be mitigated:	<i>NA</i>
Proposed mitigation:	<i>Without compromising construction activities and schedules, local SMME and BEE service providers and local labour should be employed, as far as possible.</i>
Cumulative impact post mitigation:	<i>Low (positive)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (positive)</i>

- (b) **Impacts that may result from the operational 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 operational phase.**

Potential impacts on the geographical and physical aspects:	
Nature of impact:	<i>No geographical and physical impacts are expected during the operational phase.</i>

Potential impact on biological aspects:	
Nature of impact:	<i>The activity is not expected to have any impact on biological aspects on the site during the operational phase.</i>

Potential impact on cultural-historical aspects:	
Nature of impact:	<i>No cultural-historical impacts are expected during the operational phase.</i>

Potential impacts on geographical and physical aspects:	Traffic Issues: Inconvenience to Road Users
Nature of impact:	<i>Construction would result in increased vehicular movement, which could have a negative impact on existing traffic movement on the Norton Street</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Low probability</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Low (Negative)</i>
Cumulative impact prior to mitigation:	<i>Low (Negative)</i>

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>
Degree to which the impact can be mitigated:	<i>Not necessary as the impact is insignificant</i>
Proposed mitigation:	<ul style="list-style-type: none"> <i>The Contractor must ensure that during the operational phase adequate traffic accommodation and safety measures (as appropriate) are put in place along the Norton Road and other roads in the vicinity of the site.</i>
Cumulative impact post mitigation:	<i>Low (Negative)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Potential noise impacts:	Operation Noise Impacts
Nature of impact:	<i>Normal traffic noise associated with an industrial development of this nature will result. No other detrimental noise impacts are envisaged with a development of this nature and size</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Probable</i>
Degree to which the impact can be reversed:	<i>Low</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>None</i>
Cumulative impact prior to mitigation:	<i>Low - negative</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>
Degree to which the impact can be mitigated:	<i>Limited</i>
Proposed mitigation:	<ul style="list-style-type: none"> <i>Speed limits enforced within the development</i> <i>Operating activities (e.g. general maintenance) should, where possible, occur during “normal working hours”.</i> <i>The provisions of SABS 1200A Sub clause 4.1 regarding “built-up areas” shall apply to all areas within audible distance of residents.</i>
Cumulative impact post mitigation:	<i>Low - negative</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>

Potential impacts on the geographical and physical aspects:	Infrastructure/Service Impacts
Nature of impact:	<i>The development may exert pressure on existing municipal services. However this impact is not expected to be significant due to the nature of the proposed activity.</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Low probability</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Low (Negative)</i>
Cumulative impact prior to mitigation:	<i>Low (Negative)</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Degree to which the impact can be mitigated:	<i>Not necessary as the impact is insignificant</i>
Proposed mitigation:	<i>Not necessary as confirmation from the relevant departments stating that the existing services can accommodate the proposed development has been received.</i>
Cumulative impact post mitigation:	<i>Low (Negative)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Potential impacts on the socio-economic aspects:	<i>Fire Risk</i>
Nature of impact:	<i>The proposed activity of storage and handling flammable liquids could be a potential source or ignition point for fires, which could spread to neighbouring properties. Alternatively, fire may start from the industrial properties abutting the site.</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Probable</i>
Degree to which the impact can be reversed:	<i>Reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>High</i>
Cumulative impact prior to mitigation:	<i>Low to Medium (Negative)</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>High</i>
Degree to which the impact can be mitigated:	<i>High</i>
Proposed mitigation:	<ul style="list-style-type: none"> • <i>Compile a fire management plan once the development layout has been finalised. The fire management plan should ensure that key planning considerations are taken into account, such as (see Baseline Fire Investigation Report):</i> • <i>Meeting the safety distances for LPG Bulk Installations (in terms of the SANS 10087 – 3:2010)</i>
Cumulative impact post mitigation:	<i>Low (Negative)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (Negative)</i>

Potential visual impacts:	<i>Visual Impacts</i>
Nature of impact:	<i>Normal visual impact associated with an industrial development of this nature will result. The proposed development will be in an area already characterised by industrial activities. No other detrimental visual impacts are envisaged with a development of this nature and size</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Probable</i>
Degree to which the impact can be reversed:	<i>Low</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Low - negative</i>
Cumulative impact prior to mitigation:	<i>Low - negative</i>

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>
Degree to which the impact can be mitigated:	<i>Limited</i>
Proposed mitigation:	<i>The proposed development is expected to compliment and visually enhance the surrounding area if visual aspects are incorporated during the design phase.</i>
Cumulative impact post mitigation:	<i>Low - negative</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low - negative</i>

Potential impacts on the socio-economic aspects:	<i>Employment</i>
Nature of impact:	<i>The proposed project would result in approximately 15 to 25 new employment opportunities during the operational phase. An expected value of R18 million of employment opportunities will be created during the first 10 years, with all job openings going to previously disadvantaged individuals</i>
Extent and duration of impact:	<i>Local; Long term</i>
Probability of occurrence:	<i>Highly probable</i>
Degree to which the impact can be reversed:	<i>Fully reversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>NA</i>
Cumulative impact prior to mitigation:	<i>NA</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (positive)</i>
Degree to which the impact can be mitigated:	<i>NA</i>
Proposed mitigation:	<ul style="list-style-type: none"> <i>Without compromising construction activities and schedules, local SMME and BEE service providers and local labour should be employed, as far as possible.</i> <i>Ensure appropriate training is provided, where necessary.</i>
Cumulative impact post mitigation:	<i>Low (positive)</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Low (positive)</i>

- (c) **Impacts that may result from the decommissioning 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.

It is deemed unlikely that the proposed project would be decommissioned in the near future.

- (d) **Any other impacts:**

Impacts associated with the No-Go Option are presented next page:

Potential impacts:	<i>Impacts associated with the No-Go Option</i>
Nature of impact:	<i>The No-Go alternative is basically the option of not proceeding with the proposed LPG storage facilities and other related infrastructure, which would result in the site remaining in the present condition.</i>

Extent and duration of impact:	<i>Local to regional; permanent</i>
Probability of occurrence:	<i>Not Applicable</i>
Degree to which the impact can be reversed:	<i>Irreversible</i>
Degree to which the impact may cause irreplaceable loss of resources:	<i>Not Applicable</i>
Cumulative impact prior to mitigation:	<i>Not Applicable</i>
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>High</i>
Degree to which the impact can be mitigated:	<i>Not Applicable</i>
Proposed mitigation:	<i>Consideration and approval of alternative with least negative impacts.</i>
Cumulative impact post mitigation:	<i>Not Applicable</i>
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	<i>Not Applicable</i>

7. SPECIALIST INPUTS/STUDIES AND RECOMMENDATIONS

Please note: Specialist inputs/studies must be attached to this report as **Appendix G**. Also take into account the Department's Guidelines on the Involvement of Specialists in EIA Processes available on the Department's website (<http://www.capegateway.gov.za/eadp>).

Specialist inputs/studies and recommendations:

No specialists studies are required at this stage

8. IMPACT SUMMARY

Please provide a summary of all the above impacts.

All construction-phase impacts (both positive and negative) would be limited to the short and long term. One positive impact is expected to result during the construction and operational phase, namely the provision of employment opportunities, with a significance rating of LOW (POSITIVE). The negative impacts associated with Alternative 3 (preferred alternative) during the construction and operational phase have all been rated as of VERY LOW significance after mitigation (see Table 8.1 and Table 8.2 respectively).

Table 8.1: Impacts related the construction phase

Impact	Significance Without Mitigation	Significance With Mitigation
Geographical and Physical Aspects	No Impact	No Impact
Biological Aspects: Vegetation/ Freshwater/ Cultural-historical Aspects	No Impact	No Impact
Socio-economic Aspects: Employment	Low (Positive)	Low (Positive)
Construction dust	Low (Negative)	Very Low (Negative)
Construction noise	Low (Negative)	Very Low (Negative)
Visual impacts	Low (Negative)	Very Low (Negative)
Traffic and access impacts	Low (Negative)	Very Low (Negative)

Table 8.2: Impacts related to the operational phase

Impact	Constructed LPG Storage and Distribution Depot		No-Go Option	
	Significance Without Mitigation	Significance With Mitigation	Significance Without Mitigation	Significance With Mitigation
Geographical and Physical Aspects	No Impact	No Impact	No Impact	No Impact
Biological Aspects: Vegetation/Freshwater/Cultural-historical Aspects	No Impact	No Impact	No Impact	No Impact
Socio-economic Aspects: Employment	Low (Positive)	Low (Positive)	Low (Positive)	Low (Positive)
Operational dust/noise	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Infrastructural/service impacts	Very Low (Negative)	Very Low (Negative)	No Impact	No Impact
Visual impacts	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Traffic and access impacts	Low (Negative)	Very Low (Negative)	No Impact	No Impact
Fire Risk	Low - Medium (Negative)	Low (Negative)	No Impact	No Impact

9. OTHER MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Over and above the mitigation measures described in Section 6 above, please indicate any additional management, mitigation and monitoring measures.

General recommendations:

- ❖ *Compliance with the Environmental Management Programme (Appendix E). This document must form part of all tender documentation.*
- ❖ *Compile a fire management plan once the development layout has been finalised. The fire management plan should ensure that key planning considerations are taken into account, such as:*
 - *Appropriate sighting of buildings;*
 - *Choice of building materials;*
 - *Ways to secure buildings;*
 - *Maintaining fire breaks;*
 - *Fire fighting readiness; and*
 - *General management and maintenance.*

(b) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

Under South African environmental legislation, the Applicant is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. The Applicant therefore has overall and total environmental responsibility to ensure that the implementation of the construction phase of this EMP complies with the relevant legislation and the conditions of the Environmental Authorisation.

All the mitigation measures proposed are deemed realistic and feasible to implement. Where necessary the mitigatory measures have been included in the EMP. The applicant has shown commitment to implement management, mitigation and monitoring measures specified in this document and in the EMP (see Appendix E).

Please note: A draft **ENVIRONMENTAL MANAGEMENT PROGRAMME** must be attached this report as **Appendix E**.

SECTION G: ASSESSMENT METHODOLOGIES AND CRITERIA, GAPS IN KNOWLEDGE, UNDERLAYING ASSUMPTIONS AND UNCERTAINTIES

(a) Please describe adequacy of the assessment methods used.

The Basic Assessment Report for the proposed activity is being undertaken with sustainable development as a goal. The Basic Assessment process, including the assessment of potential impacts, has been undertaken in compliance with the requirements of the NEMA EIA Regulations, 2010. The NEMA EIA Regulations Guideline Series (October 2011) was also consulted for guidance on various aspects of the Basic Assessment process, together with rigorous assessment and evaluation, including the assessment of impacts and the public participation process. The assessment looked at the impacts of the proposals on the environment and assesses the significance of these, as well as proposes mitigation measures, as required, to reduce anticipated impacts to acceptable levels.

All impacts have been systematically assessed and presented according to the 'Convention for assigning significance ratings to impacts' (see sub-section (b) below). Frontline Safety Health and Environmental Consultants is confident that all potential impacts have been identified and assessed as part of this assessment process and that this report should provide DEA&DP with sufficient information to make an informed decision on the application.

(b) Please describe the assessment criteria used.

The criteria are based on the EIA Regulations, published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989. The following criteria was used during the assessment of impacts for the proposed development:

EXTENT OF IMPACT BEING EITHER:

- **Immediate** (the site and immediate surrounds);
- **Local** (adjacent residential areas);
- **Regional** (Western Cape);
- **National** (Country wide);
- **International**;

DURATION OF IMPACT BEING EITHER:

- **Short term** (0-5 years);
- **Medium term** (5-15 years);
- **Long term** (operational life of the development);

INTENSITY OF IMPACT BEING EITHER:

- **Low** (where natural, cultural and social functions and processes are not affected);
- **Medium** (where the affected environment is altered but natural, cultural and social functions and processes can continue);
- **High** (where the affected environment is altered but natural, cultural and social functions and processes are altered to the extent that it will temporarily or permanently cease);

PROBABILITY OF IMPACT BEING EITHER:

- **Low probability** (possibility of impact occurring is low);
- **Probable** (where there is a distinct possibility that it will occur);
- **Highly probable** (where the impact is most likely to occur);
- **Definite** (where the impact will occur);

SIGNIFICANCE OF IMPACT:

- **Low** (where natural, cultural and social functions and processes are slightly affected);
- **Medium** (where the affected environment is altered but natural, cultural and social functions and processes can continue);
- **High** (where the affected environment is altered but natural, cultural and social functions and processes are altered to the extent that it will temporarily or permanently cease);

REVERSIBILITY RATING:

- **Irreversible** (the activity will lead to an impact that is permanent);
- **Partially reversible** (The impact is reversible to a degree e.g. acceptable re-vegetation measures can be implemented but the pre-impact species composition and/or diversity may never be attained. Impacts may be partially reversible within a short (during construction), medium (during operation) or long term (following decommissioning) timeframe);
- **Fully reversible** (The impact is fully reversible, within a short, medium or long term timeframe);

*In all instances **(Negative)** indicates a perceived negative / adverse impact and **(Positive)** is a perceived positive / beneficial impact.*

(c) Please describe the gaps in knowledge.

The guidelines and regulations set out in the NEMA were applied throughout the EIA process, together with rigorous assessment and evaluation. However, we acknowledge that in any circumstance there may be oversights and gaps in knowledge.

*However, the following gaps in knowledge, assumptions and uncertainties should be noted:
The information provided by the applicant is assumed to be accurate and unbiased.*

(d) Please describe the underlying assumptions.

Study assumptions and limitations are listed below:

- ❖ *The study assumes that the Environmental Assessment Practitioner has been provided with all relevant project description information by the Applicant (Fuel First) and the rest of the project team and that it was correct, unbiased and valid at the time it was provided;*
- ❖ *There will be no significant changes to the project description or surrounding environment*

between the completion of the report and implementation of the proposed project that could substantially influence findings, recommendations with respect to mitigation and management, etc.;

- ❖ *The study assumes that all mitigatory measures would be implemented as proposed in this report, which will be enforced by the implementation of detailed EMP;*
- ❖ *There are no environmental sensitivities that were noted during the study of the site and therefore assumed it an appropriate piece of land for the proposed activity; and*
- ❖ *It is further assumed that because the site is surrounded by development in the form of an industrial area, that it is not a precinct piece of land within the urban edge. It would therefore be better to develop this site than to implement the project in other areas regarded to have a higher ecological value*

(e) Please describe the uncertainties.

It is uncertain whether the recommended mitigation measures will be implemented, monitored and managed correctly. The management and implementation of these mitigation measures must be monitored and managed correctly to ensure that all positive impacts identified are enhanced and negative impacts mitigated.

SECTION H: RECOMMENDATION OF THE EAP

In my view (EAP), the information contained in this application form and the documentation attached hereto is sufficient to make a decision in respect of the activity applied for.

YES✓

NO

If "NO", list the aspects that should be further assessed through additional specialist input/assessment or whether this application must be subjected to a Scoping & EIR process before a decision can be made:

Not applicable

If "YES", please indicate below whether in your opinion the activity should or should not be authorised:

Activity should be authorised:

YES✓

NO

Please provide reasons for your opinion

- ❖ *As portions of the site are located in a sensitive natural environment, the preferred Alternative 3 would not result in unacceptable negative impacts on the biophysical and socioeconomic environment. The preferred Alternative thus includes all key mitigatory measures in order to lower the overall biophysical and socioeconomic impacts of the project to an acceptable significance level.*
- ❖ *The site is currently located in an industrial area within the urban edge and the proposal is to undertake activities that blend with the area.*
- ❖ *From a heritage point of view, both the subject property and the context are without any identified cultural significance.*
- ❖ *The site has no viable alternative land use type and the impact assessment does not identify any overarching negative impacts that should prevent the application from being authorised.*

If you are of the opinion that the activity should be authorised, then please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an authorisation.

This section identifies the recommended mitigation measures for the proposed project. These mitigation measures are all considered to be feasible.

General recommendations:

- ❖ *An Environmental Management Plan (EMP) must be kept at the site for the duration of the construction and operation phases of the project.*
- ❖ *The EMP must be included in the tender document and in all contract documentation for all phases of implementation.*
- ❖ *The Applicant must ensure compliance with the EMP and appointment of an ECO during the construction phase.*

Specific recommendations:

Employment:

- ❖ *Without compromising construction activities and schedules, local BEE service providers and local labour from the surrounding community should be employed as far as possible.*
- ❖ *Those successful in obtaining employment should be provided with the appropriate training.*

Noise:

- ❖ *The Contractor shall be familiar with and adhere to any regulations and by-laws regarding the generation of noise and hours of operation.*
- ❖ *Working hours as specified in the EMP must be adhered to. Avoid construction activities outside of “normal working hours”.*
- ❖ *The provisions of SABS 1200A Sub clause 4.1 regarding “built-up areas” shall apply to all areas within audible distance of residents.*

Dust:

- ❖ *The Contractor shall ensure that exposed soil and material stockpiles are adequately protected against the wind.*
- ❖ *The Contractor must ensure that the generation of dust is minimised by implementing a dust control programmes.*

Visual Impacts:

- ❖ *Visual screening with shade cloth and fencing if need be.*
- ❖ *Building Aesthetics should be observed when designing building structures so as to compliment and visually enhance the surrounding area.*

Heritage Impacts:

- ❖ *It was recommended that if any heritage resources, including graves or human remains, are encountered they must be immediately reported to the provincial Heritage Resources Authority of the Western Cape.*

Duration and Validity:

Environmental authorisations are usually granted for a period of three years from the date of issue. Should a longer period be required, the applicant/EAP is requested to provide a detailed motivation on what the period of validity should be.

A three year validity period is requested.

SECTION I: APPENDICES

The following appendices must be attached to this report:

(Please note: The listing of appendices below were modified to suit what is provided in this report as outlined in the Table of Content, Appendices Section. However, the listing will be adhered to during the compilation of the final BAR.

Appendix		Tick the box if Appendix is attached
Appendix A:	Locality map	√
Appendix B:	Site plan(s)	√
Appendix C:	Photographs	√
Appendix D:	Biodiversity overlay map <i>(Appendix D outlines Public participation information in this report)</i>	
Appendix E:	Permit(s) / license(s) from any other organ of state including service letters from the municipality <i>(Appendix E provides the EMP in this report)</i>	
Appendix F:	Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements and any other public participation information as required in Section C above. <i>(See Appendix D of this report)</i>	
Appendix G:	Specialist Report(s)	
Appendix H :	Environmental Management Programme <i>(See Appendix E of this report)</i>	
Appendix I:	Additional information related to listed waste management activities (if applicable)	
Appendix J:	Any Other (if applicable) (describe)	

DECLARATIONS

THE APPLICANT

I, in my personal capacity or duly authorised (please circle the applicable option) by thereto hereby declare that I:

- regard the information contained in this report to be true and correct, and
- am fully aware of my responsibilities in terms of the National Environmental Management Act of 1998 ("NEMA") (Act No. 107 of 1998), the Environmental Impact Assessment Regulations ("EIA Regulations") in terms of NEMA (Government Notice No. R. 543 refers), and the relevant specific environmental management Act, and that failure to comply with these requirements may constitute an offence in terms of the environmental legislation;
- appointed the environmental assessment practitioner as indicated above, which meet all the requirements in terms of regulation 17 of GN No. R. 543, to act as the independent environmental assessment practitioner for this application;
- have provided the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the environmental legislation including but not limited to –
 - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with the applicable management and mitigation measures;
- am responsible for complying with the conditions that might be attached to any decision(s) issued by the competent authority;
- have the ability to implement the applicable management, mitigation and monitoring measures;
- hereby indemnify, the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of, inter alia, the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Please Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the applicant:

Name of company:

Date:

THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

I ... *Justin Gichobi* ..., as the appointed independent environmental practitioner ("EAP") hereby declare that I:

- act/ed as the independent EAP in this application;
- regard the information contained in this report to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have ensured that information containing all relevant facts in respect of the application was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all interested and affected parties were considered, recorded and submitted to the competent authority in respect of the application;
- have kept a register of all interested and affected parties that participated in the public participation process;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Note: The terms of reference must be attached.

Signature of the environmental assessment practitioner:

Frontline Safety Health & Environmental Consultants

Name of company:

30 January 2014

Date:

THE INDEPENDENT PERSON WHO COMPILED A SPECIALIST REPORT OR UNDERTOOK A SPECIALIST PROCESS

I, as the appointed independent specialist hereby declare that I:

- act/ed as the independent specialist in this application;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- have ensured that the names of all interested and affected parties that participated in terms of the specialist input/study were recorded in the register of interested and affected parties who participated in the public participation process;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Note: The terms of reference must be attached.

Signature of the specialist:

Name of company:

Date: