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FINAL BASIC ASSESSMENT REPORT

for

PARKDENE FILLING STATION

on

Erf 11221, c/o Main & Sandkraal Road, George

In terms of the

National Environmental Management Act (Act No. 107 of 1998, as amended) & 2010 Environmental Impact Regulations

Prepared for Applicant: Mr Aboobaker Ismail o.b.o Lenasia Builders & Developers CC
By: *Cape EAPrac*
Report Reference: GEO139/28
Department Reference: EG12/2/4/1-D2/22/0067/11
Case Officer: Mrs Renetta Roets
Date: 19 September 2012

APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:

***Cape EAPrac* Environmental Assessment Practitioners**

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Report reviewed by: **Louise-Mari van Zyl** (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa, EAPSA); Committee Member of the Southern Cape International Association for Impact Assessments (IAIA). Mrs van Zyl has over ten years' experience as an environmental practitioner.

PURPOSE OF THIS REPORT:

Departmental Review & Decision-making

APPLICANT:

Mr Aboobaker Ismail o.b.o Lenasia Builders & Developers CC

CAPE EAPRAC REFERENCE NO:

GEO139/28

DEPARTMENT REFERENCE:

EG12/2/4/1-D2/22/0067/11

SUBMISSION DATE

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Parkdene Filling Station, Erf 11221

c/o Main & Sandkraal Road, George

Submitted for:
Departmental Review & Decision-making

Report Issued by:
Cape Environmental Assessment Practitioners

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REPORT OVERVIEW

1. INTRODUCTION

Cape Environmental Assessment Practitioners (*Cape EAPrac*) has been appointed as the independent Environmental Assessment Practitioner (EAP) responsible for facilitating the legally required **Basic Assessment Environmental Process** for the proposed development of a fuel filling station of the Erf 11221, located on the corner of Main and Sandkraal Road, Parkdene, George.

The site falls within the jurisdictional area of the George Municipality and within the urban edge of George with the following details as per the registered Title Deed for the property:

Property Details

Property:	Erf 11221, c/o Main & Sandkraal Road, Parkdene
Registered Owner:	Allpass Investments (Pty) Ltd
Potential Buyer:	Mr Aboobaker Ismail (Lenasia Builders & Developers CC)
Current Title Deed Number:	T7229/1950
Size:	4 995m^2
Zoning:	Business Zone

This Final Basic Assessment Report (FBAR) is the third report in a series of three different reports, the first being the **Application Form** submitted to the competent authority, the Department of Environmental Affairs and Development Planning (DEA&DP), on 9 November 2011. DEA&DP acknowledged the Application on 24 November 2011 (Ref: EG12/2/4/1-D2/22/0067/11); providing *Cape EAPrac* with confirmation to continue with the Basic Assessment phase of the process.

The second report in this series, the **Draft Basic Assessment Report (DBAR)** was made available for a 40-day stakeholder review and commenting period, which extended between Tuesday, 29 May 2012 and Monday, 09 July 2012. The comments received during this period were considered by the project team and are included in this Final Basic Assessment Report, with feedback on how these issues have been considered, accommodated and addressed.

This **Final BAR** was available for a further 21-day stakeholder comment and review period, which extended between Tuesday, 28 August 2012 and Tuesday, 18 September 2012. Following the closing of this commenting period, only a single submission was received from the Department of Health confirming that they have no further comment regarding the activity. As such, the Final Basic Assessment report was submitted to the delegated decision-making authority, DEA&DP to inform their decision-making.

2. LEGISLATIVE AND POLICY FRAMEWORK

The reason for following a Basic Assessment process, is because filling stations require prior environmental investigation and approval in terms of the National Environmental Management Act (NEMA, Act 107 of 1998) for the storage and handling of a dangerous good (fuel).

NEMA makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority (in this case, the Western Cape Department of Environmental Affairs and Development Planning, DEA&DP). The DEA&DP's decision will be based on the findings of the Basic Assessment process.

According to the Government Notice No. 544, an Environmental Authorisation is required for the following applicable listed activity:

> Government Notice No. 544: (*Activity Number 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* **[for the establishment of a filling station providing for the underground storage of petroleum products with a combined capacity of 115m^3]**.

None of the 'listed activities' listed in Government Notices 545 or 546 apply to this proposal therefore a Basic Assessment Environmental Process is being undertaken to inform the public, stakeholders and delegated authority of the potential impacts associated with the proposal and how such should be avoided or mitigated.

3. ACTIVITY

As part of the proposed filling station, the development proposal includes the establishment of a hard-surfaced fuel dispensing **forecourt.** The filling station will be equipped for the dispensing of octane (petrol) and diesel fuels, for passenger and light delivery vehicles, as well as heavy vehicle.

Five Underground Storage Tanks (USTs) with a combined capacity of approximately 115m^3 (115 000 litres) will be installed on the premises. In addition to the forecourt and tanker refuelling area, the development proposal includes the establishment of **small commercial and retail facility**, such as a convenience store. Provision will also be made for twenty surfaced **parking bays** and **surfaced internal access and service roads**. The proposal also provides for a **carwash facility** on the filling station premises.

Figure 1: Filling station development site in proximity to the N2 and Sandkraal Road.

4. SITE DESCRIPTION AND ATTRIBUTES

The development site is flat and located on the corner of Sandkraal and Main Road, Parkdene, approximately 3,5 kilometres South-East of the Central Business District (CBD) of George. Sandkraal Road is a double lane, major arterial road linking the CBD to Thembalethu and the National Road (N2) and carries heavy traffic volumes.

As per the Title Deed, the development site covers an area of approximately 4 995m^2. The site is currently accessed from an existing formal entrance along Main Street.

The site is zoned **Business Zone**, and the allowable Consent Use allows for the operation of a filling station on Erf 11221 contributing to the desirability[1] of the proposed land use.

According to the National Spatial Biodiversity Assessment (NSBA) the vegetation in the area consists of Garden Route Granite Fynbos which is considered to be “Endangered.”

There is however no remaining natural vegetation found on the site as the entire site has been **transformed.** Over the years the site has been used for various purposes (current zoning is Business). There is no remaining vegetation with conservation status left on the development site, or surrounding properties, which are within a mixed residential / commercial area. See Figures 1&2 for a location of the site.

[1] As per the Need & Desirability Guideline Series published by the Department of Environmental Affairs.

The site is currently occupied by Life Community Services, a non-profit ministry group, who provides a crèche and after school care facility and activities to children from the nearby community. Life Community Services has been registered as a key stakeholder and has actively participated in the process.

As can be seen from the photoplate provided on the next page, the site contains a number of existing fixed and temporary structures, as well as a play area, parking spaces and vacant land covered with grass, which is all used by the current occupiers of the property.

Various residential sectors (low-medium density housing) as well as commercial, retail and institutional facilities are found on Sandkraal Road and in the immediate surrounding area. Two departmental schools including the Mzoxolo Primary School (Sandkraal Road) and another school not directly located on Sandkraal Road are located in the area. In addition to Life Community Services, other after-school care / crèche facilities such as Happy Feet facility, is located in surrounding area. The Outeniqua House (Place of Safety) is located directly south of the development site.





Photo plate: photographs of Erf 1121, c/o Sandkraal Road & Main Street, Parkdene

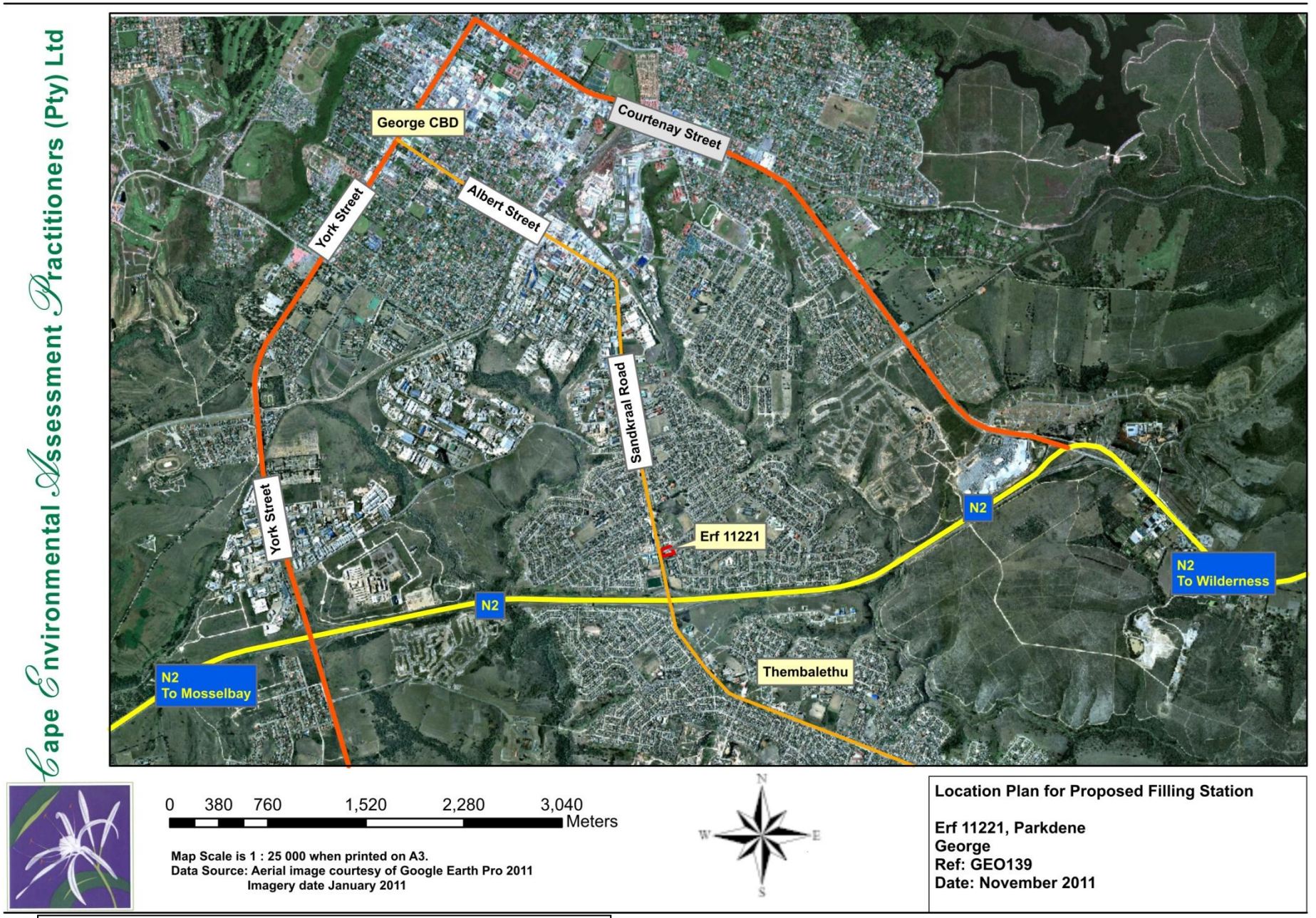


Figure 2: Location of Erf 11221, Parkdene, George

5. SPATIAL PLANNING CONTEXT

The development property is located within the urban edge of George and forms part of the site forms part of a mixed commercial and residential section of the Parkdene area.

The site falls within the jurisdictional area of the George Municipality and within the urban edge of George. The site forms part of a **mixed commercial and residential section** of the Parkdene area, George. The suburb of Parkdene is surrounded by Lawaaikamp suburb (west of the development site), Thembalethu (south of the development site), and Maraiskamp (north of the development site). To the south, the N2 runs parallel to the development site. The intersection providing access to the N2 is approximately 300meter south of the development site, off Sandkraal Road.

The development site covers an area of approximately 4 995m^2 (according to Title Deed, dated by Title Deed Office on 19 August 2008) and is located approximately 3,5 kilometres South-East of the Central Business District of George.

Erf 11221 is currently zoned Business Zone (see copy of the zoning certificate attached to Appendix G of this BAR). This zoning was allocated to the site in 1987. Consent Use in terms of this zoning allows for the proposed development of a filling station on the site subject to approvals from the relevant Authorities. The development proposal, namely for a filling station with an underground fuel storage capacity amounting to 115m^3, is therefore allowed with the **current zoning and no further re-zoning** of the site will be required.

According to surveys done as part of the Economic Impact Assessment, two other filling stations are located along Sandkraal Road. Both these filling stations are west-bound filling stations whereas the proposed filling station is east bound. Vehicles making use of the existing filling stations located along the western side of Sandkraal Road, must traverse oncoming traffic which is furthermore complicated by the existing traffic island that stretches across the length of Sandkraal Road. It is therefore anticipated that the proposed filling station at Erf 11221 will conveniently serve traffic, particularly heavy vehicles, travelling in a southerly direction away from the Industrial area towards the N2.

5.1 NEED AND DESIRABILITY

In keeping with the requirements of an integrated Environmental Impact process, the DEA&DP *Guideline on Need and Desirability (2010)* has been utilised to provide a concise estimation of the activity to the broader societal needs. The concept of need and desirability can be explained in terms of its two components where *need* refers to *time* and *desirability*

refers to *place*. The questions pertaining to both *NEED* and *DESIRABILITY,* as specified in the Guideline, are answered below:

Need (timing):

Is the proposed development in line with the projects and programmes identified as priorities within the credible IDP?

Considering land use rights, the proposed development is in line with the principles of both the IDP and the SDF.

Should the development occur here at this point in time?

The Economic Impact Assessment identified that there is a definite need for a filling station at the proposed development site, particularly to serve transient traffic (traffic moving through George and surrounding areas towards the N2), and in particular heavy vehicles that access Sandkraal Road and the N2 for commercial / business purposes.

Does the community / area need the activity and the associated land use concerned?

Based on fuel sales and traffic counts over both the peak and off-peak times, weekdays and weekends, the Economic Impact Assessment (Appendix G of this BAR) clearly describes the need of the proposed activity in the current location. The site has been identified as being favourable for a filling station development, to serve particularly the southern-bound traffic of Sandkraal Road (there are no other filling stations located on the southern side of Sandkraal Road, travelling out of George) as well as transient traffic access the N2 and or Industrial area for business and commercial purposes.

The potential loss of an existing community service on the same property providing for a crèche and after school care facilities has resulted in objection from community members dependent on this service. This social service appears to be preferred to that of a filling station service.

This potential issue of concern is however negated by the fact that Life Community Service, who operates the crèche and after school care facility, owns property directly across the street from the study site where they can continue their community service.

Are the necessary services with adequate capacity currently available?

The George Municipality has confirmed the availability and capacity for civil services, in addition to the site being an existing Municipal serviced site. Refer to Appendix E of this BAR for the Municipality's correspondence in this regard.

Is this development provided for in the infrastructure planning of the municipality?

Yes. The civil services undertaken as part of this environmental process reported that the proposed development can be accommodated by the existing municipal infrastructure. The necessary road infrastructure is also in place.

Is this project part of a national programme to address an issue of national concern or importance?

No.

Desirability (place):

Is the development the best practicable environmental option for this land / site?

The development site described in this report has various points of merit. The site has established business rights and a filling station development is allowed within the Consent Use of the registered rights. There is no remaining indigenous vegetation cover on the site and there is thus no conservation status of value associated with the site. There are also no other biophysical concerns regarding the property.

This BAR, including EMP, highlights impact avoidance, monitoring and mitigation measures allowing a best practice development for the site.

Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?

No.

Would the approval of this application compromise the integrity of the existing approved environmental management priorities for the area?

No.

Do location factors favour this land use at this place?

The location of the site, on the southern boundary of Sandkraal Road, a Class 3 Road as well as the close proximity to the N2 (approximately 300 metres north of the Sandkraal / N2 intersection) and the proximity of the Industrial area are three main factors positively influencing the development site and associated filling station development proposal.

How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas?

The proposed activity will not impact on any sensitive natural or cultural areas.

How will the development impact on people's health and wellbeing?

Provided that the health and safety conditions and other mitigation measures stipulated in both this BAR and the attached EMP (Section 7.3, 7.5 & 7.11) are complied with, it is not anticipated that the proposed facility will impact on people's safety, health or wellbeing.

Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

The design of the proposed filling station has taken from the existing land uses and commercial properties of the area in order to blend in with surrounding land uses. The proposed land use is consistent with the current and will include a commercial component. The Economic Impact Assessment has confirmed the need for a filling station development at this site, for specific target markets (transient and traffic travelling south towards the N2), and thus different target markets are applicable compared to filling stations in the vicinity (two other filling stations are located in Sandkraal Road, but both are located on the western side of Sandkraal Road, servicing traffic travelling towards George). It is therefore not anticipated that the proposed development will result in unacceptable opportunity costs to other filling stations or their business.

Filling Station	**Location & distance from Erf 11221:**	**Access:**
Shell	Sandkraal Road; 2.1km from development site	Sandkraal Road rightbound
Total	Sandkraal Road; 0.9km from development site	Sandkraal Road rightbound

A third filling station is located in Albert Street roughly 2,5km towards town. This Sasol filling station is located leftbound (coming from town).

Will the proposed land use result in unacceptable cumulative impacts?

Potential cumulative impacts associated with the proposed facility include the following:

- Economic (potentially positive);
- Pollution (potentially negative – mitigation measures have been recommended to avoid and reduce the potential negative pollution impacts);
- Traffic (potentially negative – depending on the rate of suburban / commercial growth, medium term upgrades may eventually be necessary to avoid cumulative traffic volume impacts); and

- Reduced business/sales for other filling stations in the immediate vicinity of the development site (**unlikely to be significant** as the impact will be spread amongst a number of filling stations).
- Temporary inconvenience when community service (i.e. crèche / after school care facility) relocate to alternative premise.

6. ALTERNATIVES

The Basic Assessment process provides for the investigating and assessing of activity, layout, site or technological alternatives.

To date, this process has considered two layout alternatives (see below). The development components for both alternatives remain the same as is described under section "3 Activity".

Layout Alternative 1 (Preferred Alternative):

Layout Alternative faces north (towards Main Street) and has a total development footprint of 769.55m^2.

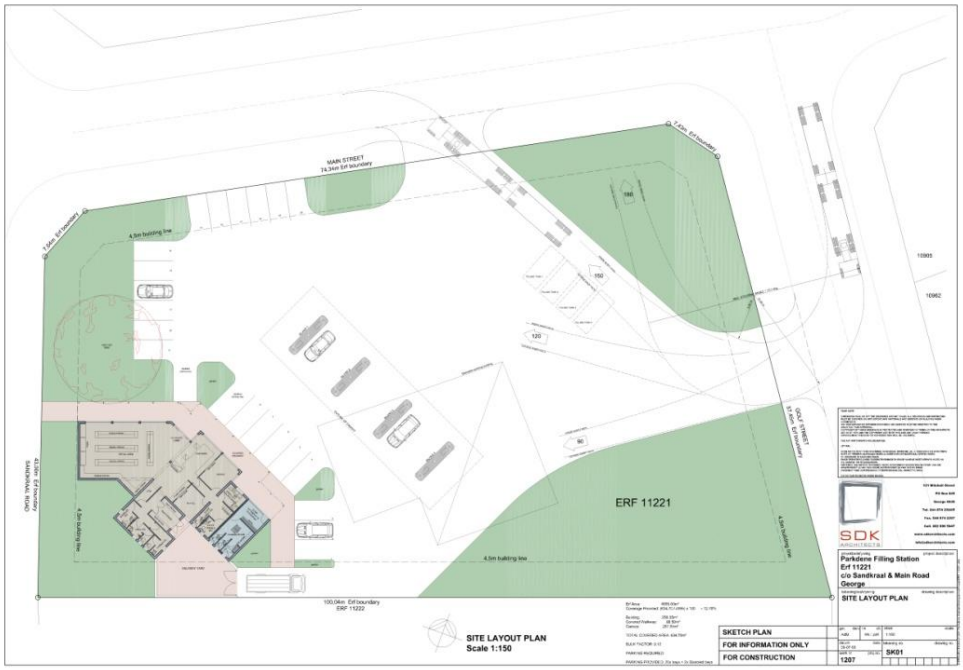
This larger development footprint is within the Business Zone rights and coverage rights of the erf and is therefore preferred above a smaller layout as shown in Alternative 2.

For detailed maps and architectural impressions, see Appendix B of this Basic Assessment Report.

Layout Alternative 1 (Preferred Alternative)

Layout Alternative 2:

Layout Alternative 2 also faces north towards Main Street, and the development components remain the same, except for a smaller commercial component. The total development footprint is 634.70m^2.



Layout Alternative 2, with smaller development footprint.

Layout Alternative 2 does not allow for maximum traffic flow and movement convenience. The commercial facility of this alternative has a less cost effective layout and design.

Alternative 2 is furthermore slightly smaller in covered footprint, (Alternative 1 has a total covered area of 769.55m^2 compared to Alternative 2 which has a total covered area of 634.70m^2).

Status Quo (No-Go) Alternative:

In addition to the Activity Alternative (establishment of a filling and service station), the Status Quo (No-Go) alternative also forms part of the environmental assessment process and will be considered throughout the process. For the purpose of this exercise the No-Go option is considered to be either retail or shop facility of some kind to be in line with the current zoning and land use rights.

7. PUBLIC PARTICIPATION

A **Public Participation Process** (PPP) forms part of this Basic Assessment Environmental Process, and is undertaken in terms of Regulation 56 of NEMA. The PPP provides members of public and other key stakeholders/authorities with an opportunity to voice their concerns, support or queries in regard to any activities that they feel might affect them and their rights. The PPP is also a tool to identify the need for further specialist investigations and assessments in the event that issues/impacts are raised.

The following information reflects on the PPP undertaken to date as part of this Basic Assessment Environmental Process:

- The **landowner** and **occupiers of the site** were provided with written notification of the Application (10 November 2011);
- Notice Boards in **English and isiXhosa** were placed at the site, providing information on the process undertaken and the development proposal (24 November 2011);
- A **letter drop** was done for all the **direct neighbours**, informing them of the process be undertaken and the development proposal, and requesting their registration as I&APs (24 November 2011);
- **Written correspondence** were sent to neighbours not at home at the time of the letter drop (24 November 2011);
- **Advertisement** in the local paper (George Herald, issue of 24 November 2011) calling for I&AP registration;
- A **register** has been opened to collect the names, contact details and addresses of the individuals registering as I&APs for this application;
- The Draft Basic Assessment report will be available for a 40-day comment period *to all registered stakeholders*; and
- All registered stakeholders were informed via written means (e-mail, fax or post) of the report's availability, where the report can be accessed as well as the commenting period details;
- Hard copies of the Draft BAR will be available at the Conville Library and the George Municipality (Planning Department) for the duration of the commenting period;
- The Draft BAR will also be available on website: www.cape-eaprac.co.za/active;
- Hard copies of the Draft BAR's Executive Summary, with CD copy of the complete report, will be submitted to **local and regional authorities**, including:
    - George Municipality: Technical Services
    - George Municipality: Planning Department
    - George Municipality: Parks & Recreation (Environment)

- Eden District Municipality: Environmental Department
- Eden District Municipality: Planning Department
- Cape Nature (28 May 2012);

- Heritage Western Cape have been informed of the application and BAR's availability (28 May 2012);
- All relevant **State Departments** (Department of Health, Department of Minerals and Energy and the Department of Transport) were provided with a hard copy of the Executive Summary of the BAR, including CD copy of the complete report (28 May 2012);
- All comments submitted by I&APs during the 40-day commenting period were considered, responded to and will be included in this FBAR.
- The Final Bar was available for a 21-day review and comment period and all registered stakeholders received written notification of where the report can be view (28 August 2012).
- Stakeholders were informed that should any further comments be received during this period, it will be included with the Final BAR for DEA&DP's review and decision-making (28 August 2012).
- Stakeholders were informed that upon closing of the Final BAR commenting period, the Final BAR including additional / new comments received, will be submitted directly to DEA&DP for review and decision-making (28 August 2012).
- A single submission from the Department of Health was received, confirming that the Department of Health has no objection against the proposed development (30 August 2012).
- All registered I&APs will be kept informed on the process and should DEA&DP issue a decision, it will be communicated to all registered I&APs via written correspondence.

(Details of the above are included in Appendix F of this BAR).

CHRONOLOGY OF EVENTS			
DATE	**PURPOSE**	**ENTITY**	**ACTIONS**
10 Nov 2011	Application Form	*Cape EAPrac*	Application for Environmental Authorisation submitted to DEA&DP.
16 Nov 2011	Acceptance of Application	DEA&DP	DEA&DP accepts the Application Form and instructs *Cape EAPrac* to continue with the Basic Assessment Process.
24 Nov 2011	Commencement of Public Participation	*Cape EAPrac*	Advertisement in the George Herald calling for I&APs to register for the EIA process for a period of 21 days.

24 Nov 2011	Public Participation	*Cape EAPrac*	Letter drop to all direct neighbours to inform them of Application.
29 May 2012	Draft Basic Assessment Report	*Cape EAPrac*	Draft Basic Assessment Report made available for public review and comment for a period of 40 days.
9 July 2012	Comment Period Closes	*Cape EAPrac*	The 40 day comment period closes. All comment received will be included in the Final BAR.
28 August 2012	Final Basic Assessment Report	*Cape EAPrac*	Final Basic Assessment Report made available for public review and comment for a period of 21 days.
18 September 2012	Comment Period Closes	*Cape EAPrac*	The 21 day comment period closes. All comment received will be included in the Final BAR submitted to DEA&DP.
19 September 2012	Final BAR Submitted	*Cape EAPrac*	Final BAR submitted to DEA&DP for review and decision-making.

8. SPECIALIST STUDIES

A number of project team and specialist investigations were undertaken to **inform the environmental process** for the proposed filling station. The studies completed and included with this BAR for stakeholder review and comment include the following:

Civil Services Engineering Report (*Vela VKE Consulting Engineers)*

Traffic Impact Assessment (*Vela VKE Consulting Engineers)*

Economic Feasibility Study and Impact Assessment (*UrbanEcon*)

Town Planning Report (*DELplan*)

9. ISSUES OF CONCERN RAISED BY STAKEHOLDERS

In response to the Draft Basic Assessment Report and associated stakeholder commenting period, registered stakeholders raised the following concerns:

- Environmental, water and groundwater pollution from underground fuel tanks;
- Safety concerns for the community especially children (a number of educational facilities are located in close proximity to the filling station);
- Concerns of increased noise and crime levels associated with the filling station;
- Concerns of road widening onto private property;
- Overtrading and supply of filling stations in George;
- Negative economic impact on other existing filling stations;
- Further reduction in fuel sales at existing filling stations will result in a loss of jobs;

- The need for the filling station is not proven;
- The location of the new Thembalethu Mall is a better suited location; and
- Relocation of Life Community Services (NGO operating on the site) will negatively affect the 2,000 children served daily, as well as disruption for local employees.

In particular the last issue requires clarification as the process confirmed that Life Community Services unfairly influenced a number of people throughout the process. There is an existing legal contract and lease agreement in place between the landowner and Life Community Services which stipulates that Life Community Services can utilise the property, on a month-to-month basis, until time of selling. The property is in the process of being transferred to the Applicant (Mr Aboo Ismail on behalf of Lenasia Builders & Developers) and Life Community Services is aware of the transaction. Life Community Services has confirmed in writing, their month-to-month agreement until the property is sold (this written communication is dated 16 August 2012 and is attached to Appendix F of this BAR).

During the course of the environmental process however Life Community Services initiated **two petitions** to lodge objection against the development proposal (dated December 2011 and July 2012). The first petition was confirmed as **invalid and false** due to the fact that local residents' names have been listed as 'objecting' against the development proposal, without consent from these individuals and without the signatures of the objectors. See the Department's resolution on this first petition as recorded in Appendix J of this BAR. The July petition proved valid and were received mostly from parents and grandparents of children making use of the services offered by Life Community Services.

As with the December petition, *Cape EAPrac* undertook a follow-up survey to confirm the details of individuals whom participated in the petition. This follow-up survey on the objections included and confirmed the following:

- A survey was undertaken in which a 30% sample of the individuals whom participated in the petition were contacted;
- Of this survey, a validity of 70% was calculated based on the personal communication with the participants;
- The remaining 30% were not aware of the letters of objection submitted on their behalf, and because they were not informed of this development, they could not confirm whether they support or object against the development proposal (it must be noted that this resembles a repeat of the December petition where none of the people who's names appeared on the initial petition list where aware of the propose project or petition).
- Despite Life Community Services initiating the petitions, it appears they did not inform those they approached of their agreement to vacate the permises upon transfer of the

property as petitioners were unaware of the Lease Agreement which Life Community Services has with the land owner.

The location of all individuals whom participated in the July petition which was initiated following the DBAR is presented in the following graph.

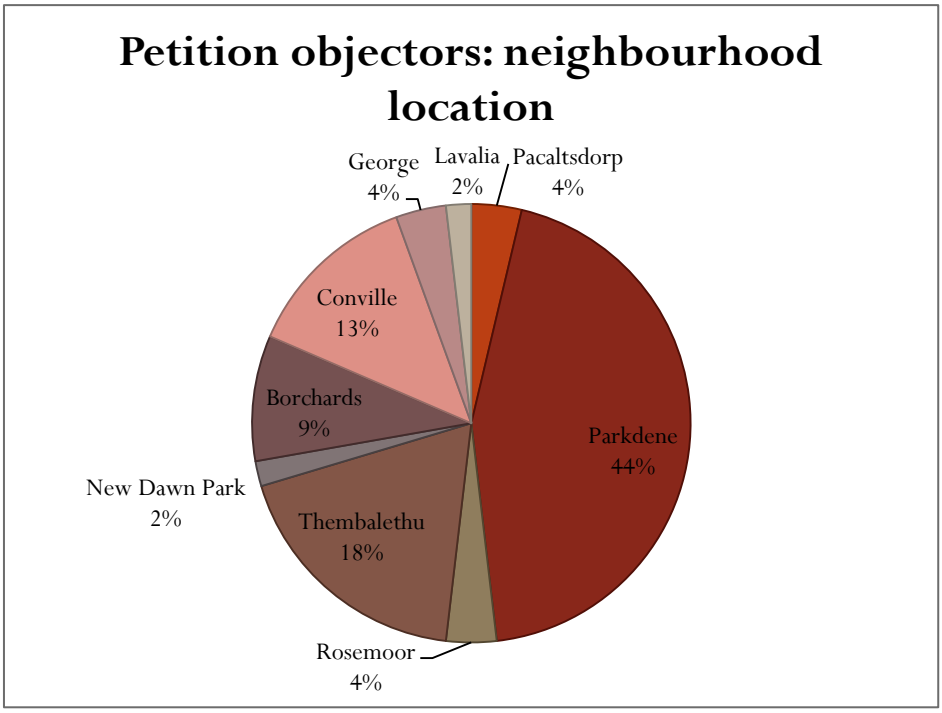


Figure 2: Pie chart showing the location of individuals whom participated in the second petition (July 2012).

It is evident that the majority (66%) of people represented by the sample, who were asked by Life Community Centre to sign the July petition reside outside the study area namely Parkdene.

The petitioners' main concerns, namely the serving of local children from the premises which will no longer be available should the property be sold, and subsequently the development of the filling station, are recognised and acknowledged. However, it has been confirmed that Life Community Services owns property directly across from this study site. In the event that Life Community Services relocate and re-establish within the same community, it is safe to assume that the services will not necessarily be lost to the community.

Life Community Services officially withdrew their objection against the proposed development, (dated 16 August 2012). See Appendix F, Annexure F5 for a copy of this correspondence.

Further details on the comments and concerns raised during the process, as well as responses to all the submissions received, are reflected in Basic Assessment Form, as well

as Appendix F (Public Participation Information – including *Issues & Response Table*). Also note that all comments, in their original format, are included as part of this Appendix.

In addition to the issues identified by participating I&APs, the project team furthermore highlighted the following issues of concern:

- construction phase traffic,
- noise and dust,
- potential contamination (soil and water),
- potential odours,
- fire risks,
- public health and safety relating to fuels,
- traffic volumes,
- potential impact on the sense of place.

These and other potential impacts have been **considered, evaluated and assessed**, and **mitigation measures** recommended where appropriate in order to avoid and/or reduce the impacts that could result in potential detrimental environmental impacts. Details are provided in both the BAR and Environmental Management Programme (EMP).

The comments raised were also distributed to the project team and specialists for consideration and addressing. The mitigation measures required to address these issues, and to avoid these impacts, are described below (see section 10). Avoidance and mitigation measures proposed, are prescribed for the design, construction and operational phases and will contribute to avoiding, and reducing the significance of the potential negative impacts.

Positive impacts, mainly economic-related, were also identified. These include direct and indirect positive economic benefits from the construction and operational phases and various types of job opportunities. A definite feasibility for the development proposal has been confirmed in the outcome of the Economic Impact Assessment.

All impacts identified to date, have been adequately investigated and addressed, and there are no impacts that, with mitigation, will result in significantly detrimental impacts on the development environment, including the surrounding land users and residents.

10. ENVIRONMENTAL MANAGEMENT PROGRAMME

An Environmental Management Programme (EMP) is required in terms of the National Environmental Management Act (Act No. 107 of 1998, including the August 2010

Environmental Regulations). The EMP for this application is included as Appendix H of this Draft BAR.

The purpose of this EMP is to ensure that the **environmental impacts** of the various phases of the project on the environment are **avoided, managed, mitigated** and kept to a **minimum.** This includes ensuring that the mitigation measures described in the Basic Assessment Report (BAR) and the specialist reports are implemented.

The key mitigation measures that have been recommended by the specialists and project team, in order to avoid and/or minimize potential negative impacts include the following:

- Compliance with **current zoning** of the site and **existing legal agreements** between the property owner, potential buyer and lessee;
- Two down gradient **boreholes** must be drilled (30m-40m deep) to enable regular **ground water monitoring** to detect potential contamination during the operational phase of the development;
- **Leak detectors** will be installed and the owner / operator must repair potential leaks without delay to avoid pollution;
- The forecourt must be designed with an inward slope to ensure that all runoff from the forecourt will be collected via an internal system that will capture potential pollutants (fuel/oil spills) in a special **forecourt separator** and thus effectively **avoid contamination**;
- The entire forecourt area should be bunded (underground) and all **stormwater runoff** from the forecourt area (excluding the remains in the separator) must be fed into the municipal sewer system;
- Compliance with the relevant **SABS 089/1535/1830 norms and standards** that specifically relate to the design, construction and maintenance of filling stations and underground storage tanks to ensure that all potential leakages are avoided;
- **Stormwater runoff** from areas other than the forecourt to be **filtered** (i.e. silt traps) and all stormwater outlets to be designed with **erosion control measures** to prevent point of source erosion;
- Although not a great volume, potential **hazardous material** (including oil cans/bottles, remains from the forecourt separator) must be collected, transported and disposed of by a registered waste collector at a registered waste site that can accommodate such materials i.e. Vissershok Dump Site in Cape Town;
- The facility must be fitted with **rain water storage tanks** to encourage resource conservation (water to be used for landscaping and toilets);
- **Energy saving devices**, including solar heating/heat pumps and energy efficient lighting to be installed throughout the facility; and

- Compliance with the specifications of the **Environmental Management Programme**.

11. CONCLUSION AND RECOMMENDATIONS

The proposed development site is Erf 11221, George. The site is located within the George urban edge, and has been designated for commercial purposes (the site has established commercial rights as it is zoned Business Zone) with Consent Use allowing for the development of a filling station. The development proposal is in line with the existing land use rights of the site.

Based on the information obtained thus far, the proposed Parkdene filling station is **not expected** to cause any **detrimental and long term impact** to the surrounding environment or other similar facilities and may therefore be considered for approval.

This Final BAR was subject to a final 21-day commenting period and registered stakeholders were requested to review the information contained in this report and submit any new or additional comments on or before the closing date. The Department of Health submitted a correspondence confirming that they have no further comment regarding the application. No further comments were received and therefore this report is submitted to DEA&DP for review and decision-making.

BASIC ASSESSMENT REPORT

(AUGUST 2010)

DEPARTMENT of ENVIRONMENTAL AFFAIRS & DEVELOPMENT PLANNING
Provincial Government of the Western Cape

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 <u>for each alternative</u>.**

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 <u>for the attention</u> 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 Cap~~ ~~Helderberg, South Peninsula, Cape and Blaauwberg Administrations~~	**GEORGE OFFICE** **(Eden and Central Karoo)**
~~Department of Environmental Af~~ ~~and Development Planning~~	~~Department of Environmental Affairs and Development Planning~~	**Department of Environmental Affairs and Development Planning**
~~Attention: Directorate: Integrated Environmental Management (Region A2)~~	~~Attention: Directorate: Integrated Environmental Management (Region B)~~	**Attention: Directorate: Integrated Environmental Management (Region A1)**
~~Private Bag X 9086~~	~~Private Bag X 9086~~	**Private Bag X 6509**
~~Cape Town,~~	~~Cape Town,~~	**George,**
~~8000~~	~~8000~~	**6530**
~~Registry Office~~	~~Registry Office~~	**Registry Office**
~~1st Floor Utilitas Building~~	~~1st Floor Utilitas Building~~	**4th Floor, York Park Building**
~~1 Dorp Street,~~	~~1 Dorp Street,~~	**93 York Street**
~~Cape Town~~	~~Cape Town~~	**George**
~~Queries should be directed to the Directorate: Integrated Environmental Management (Region A2) at:~~	~~Queries should be directed to the Directorate: Integrated Environmental Management (Region B) at:~~	**Queries should be directed to the Directorate: Integrated Environmental Management (Region A1) at:**
~~Tel: (021) 483-4793 Fax: (021) 483-3633~~	~~Tel: (021) 483-4094 Fax: (021) 483-4372~~	**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):	EG12/2/4/1-D2/22/0067/11
File reference number (Waste):	
File reference number (Other):	

PROJECT TITLE

Parkdene Filling Station

1. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Environmental Assessment Practitioner (EAP):	Cape Environmental Assessment Practitioners (*Cape EAPrac*)		
Contact person:	Project Practitioner: Francini van Staden Director: Louise-Mari van Zyl		
Postal address:	P O Box 2070		
	George	Postal code:	6530
Telephone:	(044) 8740365	Cell:	071 603 4132
E-mail:	francini@cape-eaprac.co.za	Fax:	(044) 874 0432
EAP Qualifications	Project Practitioner: Francini van Staden (BSc Environmental Management [UNISA]; BA Environmental Studies, [TESC, USA]) Director: Louise-Mari van Zyl (MA Geography & Environmental Science [US])		
EAP Registrations/Associations	Director Louise-Mari van Zyl: Registered as an Environmental Assessment Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa (EAPSA).		

DETAILS OF THE EAP'S EXPERTISE TO CARRY OUT BASIC ASSESSMENT PROCEDURES

Project Practitioner: Francini van Staden

Qualification: BSc Environmental Management [UNISA]; BA Environmental Studies [TESC, USA]

EAP Expertise: 3½ years experience in facilitation of EIA processes

Company Director: Louise-Mari van Zyl

Qualification: MA Geography & Environmental Science [US]

Registration: Registered as an Environmental Assessment Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa (EAPSA)

EAP Expertise: 9 years experience in facilitation of EIA processes in the Western and Eastern Cape and Kwazulu Natal.

2. EXECUTIVE SUMMARY OF THE CONTENT OF THE BASIC ASSESSMENT REPORT:

Cape EAPrac has been appointed by the Applicant, Mr Aboo Baker Ismail, to facilitate the legally required basic environmental assessment process as defined by the National Environmental Management Act as amended (NEMA, Act 107 of 1998, as amended, including the August 2010 Environmental Regulations).

The provincial Department of Environmental Affairs and Development Planning (DEA&DP) is the competent and decision-making authority. The proposed filling station development triggers a listed activity identified in the 2010 EIA Regulations R544 and the procedures for a Basic Assessment environmental process have been followed.

{A full Executive Summary is included as part of this Basic Assessment Report}.

SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

Is the project a new development?	**YES**	~~**NO**~~

(b) Provide a detailed description of the development project and associated infrastructure.

The Applicant intends to develop a filling station on the development site, Erf 11221, Parkdene, George. The development of a filling station (dispensing both octane and diesel fuels) will operate as an individual business entity and does not form part of a bigger development concept.

The development site is located on the corner of Sandkraal and Main Road, Parkdene, George. The site is fenced with electric fencing and vehicular access is currently obtained from an entrance on Main Street, George. The site is currently zoned Business Zone, and the Business Zone Consent Use allow for the operation of a filling station on Erf 11221 (see a copy of the zoning certificate attached to Appendix G of this BAR).

The site falls within the jurisdictional area of the George Municipality and within the urban edge of George. The site forms part of a mixed commercial and residential section of the Parkdene area, George. The suburb of Parkdene is surrounded by Lawaaikamp suburb (west), Thembalethu (south), and Maraiskamp (north). To the south, the N2 runs parallel to the development site. The intersection providing access to the N2 is approximately 300meter south of the development site, off Sandkraal Road. The site natural drains towards Golf Street (eastern boundary of the site).

The development site covers an area of approximately 4 995m^2 (as confirmed by the official George General Plan – see Appendix G, Annexure G4) and is located approximately 3,5 kilometres South-East of the Central Business District of George.

The development proposal includes the establishment of a hard-surfaced fuel dispensing forecourt. The filling station will be equipped for the dispensing of octane (petrol) and diesel fuels, for passenger and light delivery vehicles, as well as trucks.

Five Underground Storage Tanks (USTs) with a combined capacity of approximately 115m^3 (115 000 litres) will be installed on the premises at a depth of approximately 2 to 2.5metres below natural ground level. In addition to the forecourt and tanker refuelling area, the development proposal includes the establishment of small commercial and retail facilities, such as a convenience store. Provision will also be made for twenty-two surfaced parking bays (two parking bays will be designated for disabled persons) and surfaced internal access and service roads. The proposal provides for a carwash facility on the filling station premises.

A high transient market is associated with the Class 3 Sandkraal Road bordering the site to the west. It is anticipated that the primary target market for this proposed filling station will be heavy vehicles / trucks that make use of Sandkraal Road, as well as the transient market making use of the N2. There are no other filling stations serving the eastern side of Sandkraal Road for traffic travelling in a southerly direction.

Layout maps (of the two Alternative layout designs) as well as Architectural representations of the proposed facility are included in Appendix B of this BAR.

The site is currently occupied by Life Community Services, a non-profit ministry group, who provides crèche and after school care facilities and activities to children from the nearby communities. There is an existing legal contract and month-to-month basis lease agreement in place between the landowner and Life Community Services which stipulates that Life Community Services can utilise the property until time of selling. The property is currently being sold to the Applicant of this process (Mr Aboo Ismail on behalf of Lenasia Builders & Developers) and Life Community Services is aware of the selling of the property. Furthermore, Life Community Services has been registered as a key stakeholder of this environmental process, and are being provided with updated information and reports for review and comment. Life Community Serices confirmed, in writing dated 16 August 2012, that they are aware of the month by month lease until the property is sold. See Appendix F for a copy of this correspondence. It was furthermore confirmed by telephone communication with the CEO of Life Community Services (communication dated 13 August 2012) that Life Community Services own property in the immediate area of where the existing operation takes place. Thus, in the event where Life Community Services relocate due to the lapsing of the existing lease agreement, their services would not necessarily be lost to the surrounding community as they do own property in the area where there services can continue, uninterrupted.

(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	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 filling station proposal will establish five underground storage tanks with a combined capacity of 115 cubic metres (not exceeding 115 000 litres).
GN No. R.	Describe the relevant **Basic Assessment**	Describe the portion of the development as

546 Activity No(s):	**Activity(ies)** in writing as per **Listing Notice 3** (GN No. R. 546)	per the project description that relates to the applicable listed activity.
No Listing Notice 3 activities are triggered.		

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.
No Scoping and EIA activities are triggered.		

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

GN No. 718 - Category A Activity No(s):	Describe the relevant Category A waste management activity in writing.
NOT APPLICABLE TO THIS APPLICATION	

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 Category B waste management activity in writing.

NOT APPLICABLE TO THIS APPLICATION	

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 TO THIS APPLICATION	

(d) Please provide details of <u>all</u> 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:		
Buildings will include a main building (which will host the retail area, pump attendant's restroom, public restrooms, manager's office, kitchen and wash-up areas as well as bulk storeroom). In addition there will be an undercover hard-surfaced fuel dispensing forecourt area. Twenty surfaced parking bays as well as surfaced access and service roads will surround the described building. In terms of the Land Use Planning Ordinance 15 of 1985, coverage of up to 75% is allowed for the primary use of a filling and service station. The total footprint area of the site to be developed is estimated at 769.55m^2 which amounts to 15% of the total site area. It can be broken down into the following sectors: • Main building: <u>308.95m^2</u> • Covered walkway: <u>30.80m^2</u> • Canopy & Forecourt: <u>432.20m^2</u> • Access road and parking: approximately <u>500m^2</u> • Parking bays: 20 (at least 19 parking bays are required in terms of the zoning, 2 additional parking bays will be available as disabled parking bays)		
Infrastructure (e.g. roads, power and water supply/ storage)	YES	~~NO~~
Provide brief description:		
<u>ROADS</u> The proposed filling station development will include the construction of a surfaced internal access road, providing both motorists and trucks (including delivery and fuel trucks) with access to the filling station off the existing Main Street entrance. This entrance has		

acceptable sight distance.

The geometry of the internal development road was determined by the design vehicle (fuel delivery truck / heavy vehicles refuelling).

WATER & SEWER

Erf 11221 is currently serviced with basic services utilised by Life Community Services providing a crèche and after-school facilities to the local community.

The following services are installed and being utilised:

- 22mm diameter potable water main connection and water meter from Main Street;
- 110mm diameter sewer connection from Golf Street;
- Existing electrical cables;
- Storm water drainage network: 900mm diameter storm water pipe.

The site has a natural gradient towards Golf Street and all rainwater runoff from the site will flow towards the existing storm water drainage network, which flows in a southerly direction along Golf Street.

The George Municipality confirmed available of services in a written confirmation, see Appendix E of this BAR.

STORMWATER

Storm water drainage will be designed according to the Best Practice Guidelines for Water Resource Protection (Vela VKE 2010). The storm water design will ensure that post-development run-off releases are similar to pre-development run-off. The storm water drainage will be therefore be designed to convey runoff in a controlled manner along the road surfaces and be channelled through inlets into the existing piped storm water system.

Storm water pipes with a diameter of 450mm are proposed, and will be able to accommodate 1:100 year storm water flow. The storm water pipes will be connecting to the existing 900mm storm water system off the Eastern corner of the development site, in Golf Street.

The rainfall runoff from the proposed facility was calculated at less than 200 l/s for the peak discharge during a 100 year event.

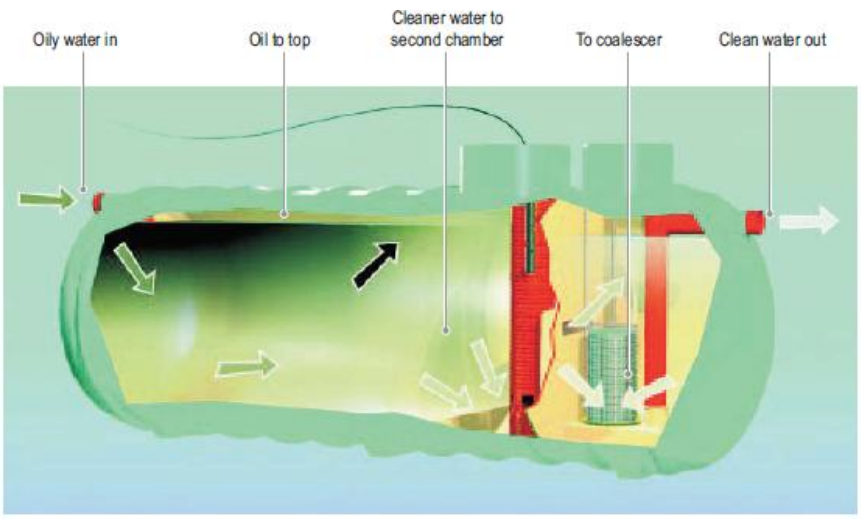
The Civil Engineer proposed that rainwater runoff from the canopy and building roof areas be harvested and stored in rainwater tanks, which will contribute to the further reduced runoff discharged into the piped storm water network. (It is furthermore recommended that the collected rainwater be utilised for the proposed Carwash facility, which will reduce the development's demand for municipal water).

The management of storm water runoff at all outlets will be designed by qualified engineers as part of the detailed design stage. The Civil Services Engineering Report (Appendix G of the BAR) detailed the pipe sizes and peak discharge volume.

FORECOURT SEPARATOR

A forecourt separator will be installed to intercept hydrocarbon pollutants such as petroleum and oil that may leak onto the forecourt area in order to prevent their entry to the storm water drainage system, thus preventing the run-off of hydrocarbon contaminated surface water. The entire surfaced forecourt area will be designed to have interfacing slopes towards central catch pits to ensure controlled runoff towards the separator only. The outflow from this system will drain into the sewer system and not into the storm water system to avoid the pollution of surface/ground water with fuel elements. (Further details included in brochure, Appendix J of this BAR).

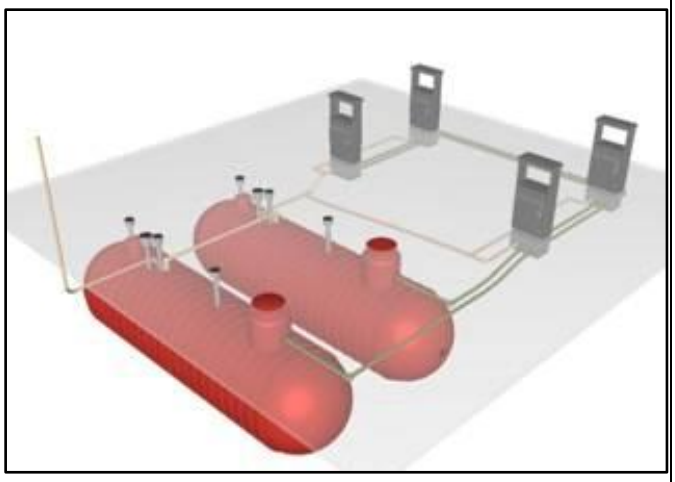
Pollutants will remain in the separator for later disposal (through a recognised hazardous waste removal service provider). The forecourt separator will have a storage capacity not exceeding 35m^3 and will be installed to contain the hydrocarbons that have entered through the drainage system and effectively separate oil and water through means of sediment collection chambers, oil skimming and filter devices forming part of the separator's design. The hydrocarbon elements will therefore be safely trapped within the separator and the water leaving the separator, feeding into the sewage system, will be free of pollutants.



Schematic illustration of the proposed forecourt separator, additional brochure information is included in Appendix J of this BAR.

Processing activities (e.g. manufacturing, storage, distribution)	~~YES~~	NO
Provide brief description:		
Storage facilities for raw materials and products (e.g. volume and substances to be stored)		
Provide brief description	YES	~~NO~~
The filling station development entails the installation of five Underground Storage Tanks (USTs) with an approximate combined storage capacity of 115m^2 (not exceeding 115 000 litres) for the storage and handling of fuel.		

The USTs will be utilised for the storage of diesel and octane (petrol) fuels.



It is important that the USTs comply with the relevant standards and designs, as USTs are a significant potential source of contamination (fuel leakage) and other risk situations (fire or other accidents). As such, the USTs installed will be subject to the set norms and standards to avoid potential environmental impacts resulting from potential tank leakages. For example, the South African Bureau of Standards (SABS) prescribes SANS1535 as standards required for "*Glass Reinforced Polyester Coasted Steel Tanks for Underground Storage of Hydrocarbons and Oxygenated Solvents Intended for Burial Horizontally*". Compliance with these relevant design norms and standards will ensure that the USTs are according to standard which will lower the probability of potential contamination occurring.

It is recommended that the area where the USTs are to be installed, be encased and bunded to ensure that any potential contamination be isolated and in doing so prevent spillage to other unaffected areas of the development site. Two down gradient boreholes, at depth 30 – 40m will be drilled for three monthly sampling to detect any potential leaks. This is considered an early detection mechanism to prevent ground or surface water pollution and serves as a suitable mitigation measure.

With regards to the handling of fuel, it must be noted that fuel will be pumped from the USTs, along an underground network of piping to the surface pumps and into vehicles. The following recommendations have been made to reduce potential impacts associated with potential spillage or pollution (leaks or fumes at refilling):

- All personnel must be sufficiently trained and made aware of the potential impacts associated with spillage in order to ensure that they adapt a caution approach when working at the pumps;
- Fuel nozzles should be fitted with cut-off mechanisms once the back pressure reaches a certain level indicating a full tank.
- Caps must be appropriately sealed.
- Implementing Automatic Tank Gauging (ATG) rather than manual stock monitoring, as ATG reduces fuel losses (and vapour emissions) through quick and efficient fuel loss detection, as opposed to manual stock monitoring.
- Vent pipes must be constantly monitoring to ensure that they are working effectively.

Overseas examples (for fume reduction) includes the provision of underground air extractor fans built into the forecourt, to suck in fuel and exhaust fumes within the forecourt area and circulate it through scrubbers to remove potential toxic elements. When fuel fumes are released they initially sink to the ground quickly (referred to as the 'bulk phase effect') which explains why underground extractor fans work best (instead of extractor fans in the ceiling). However the heavier fumes are quickly diffused through mixing with air should it

not be extracted immediately. It must be noted that the development site is located immediately adjacent to a Class 3 (high order) road (Sandkraal Road) from which high volumes of exhaust fumes are emitted, as such it is unnecessary for such a measure (underground extractor fans) to be implemented for this particular project as it is unlikely to contribute significantly, or result in measurable inconvenience to surrounding land uses. Notably a number of filling stations in George are located in proximity to residential or business sites with limited to no indication or record of discomfort associated with fuel vapours.		
Storage and treatment facilities for solid waste and effluent generated by the project	~~YES~~	NO
Provide brief description		
Other activities (e.g. water abstraction activities, crop planting activities)	~~YES~~	NO
Provide brief description		
No activities apart from what is described in this BAR are proposed.		

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.	4 995m^2
	Size of the facility:
(b) Indicate the size of the facility (development area) on which the activity is to be undertaken.	769.55m^2
	Size of the activity:
(c) Indicate the physical size (footprint) of the activity together with its associated infrastructure:	769.55m^2
(d) Indicate the physical size (footprint) of the structure activity:	Main building: 308.95m^2 Covered walkway: 30.80m^2 Forecourt: 432.20m^2
(e) Indicate the physical size (footprint) of the associated infrastructure:	Access road and parking: approximately 500m^2
ıd, for linear activities:	Length of the activity:

Indicate the length of the activity:	

3. SITE ACCESS

(a) Is there an existing access road?	YES – The site is located on the corner of Sandkraal Road and Main Street. Access to the site is obtained via direct access from Main Street (Northern boundary) and Golf Street (Eastern boundary).  *Figure 7: Entrance to the site from an existing and direct access off Main Street.* The Traffic Impact Assessment confirmed that the proposed filling station and associated traffic volumes can be accommodated for the current (2012) situation within the road network without requiring immediate upgrades. For the 2017 situation (5-year term) has shown that the right turning lane from Sandkraal Road (towards George) will be saturated at morning peak times. To mitigate this traffic impact, an additional phase at the signalised intersection, and minor changes to the signal heads are proposed (Vela VKE, 2012). For the Main Street / Filling station junction, will operate favourably up to the 5 year term (2017). The proposed right turning lane is designed to be 12m to provide space for 2 standard passenger car vehicles or 1 heavy vehicle. Future queue lengths at the right turning lane out of Main Street are calculated to be 1.8m therefore the designed 12m will be sufficient. The figure below shows a schematic layout of the junction.	~~NO~~
(b) If no, what is the distance over which a new access road will be built?		

(c) Describe the type of access road planned:

The development site borders on Sandkraal Road to the West, which is a Class 3 road. Due

to the higher road classification for Sandkraal Road, access is not proposed from Sandkraal Road. Access is however proposed from two minor roads: Main and Golf Street, bordering the site to North and East respectively.

Access points from the existing Main and Golf Streets are proposed. Main Street is a Provincial Minor Road 6886, and the Provincial Department of Transport and Road is currently the Roads Authority. As per request of the Provincial Department, the George Municipality has been requested to take over the authority and as such the provincial status of this road will be de-proclaimed. The Provincial Department of Roads confirmed based on the street's municipal function, it bears no significance to the Provincial Department and therefore the road status must be corrected.

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 development site is located on the corner of Sandkraal and Main Road, Parkdene, George. The site is fenced with electric fencing and vehicular access is currently obtained from an entrance on Main Street, George.

The site is currently zoned Business Zone, allowing for the operation of a filling station on Erf 11221.

The site falls within the jurisdictional area of the George Municipality and within the urban edge of George. The site forms part of a mixed commercial and residential section of the Parkdene area, George.

The suburb of Parkdene is surrounded by Lawaaikamp suburb (west), Thembalethu (south), and Maraiskamp (north). To the south, the N2 runs parallel to the development site. The intersection providing access to the N2 is approximately 300meter south of the development site, off Sandkraal Road. The site natural drains towards Golf Street (eastern boundary of the site).

The development site borders directly on Sandkraal Road, which is lined with a variety of commercial and retail facilities, as well as institutional facilities.

Main and Golf Street forms the Northern and Southern borders of the site, and are residential neighbourhoods (Maraiskamp – north, Parkdene – east, Thembalethu – south and Lawaaikamp – west).

See image of site and surrounding area in image below:

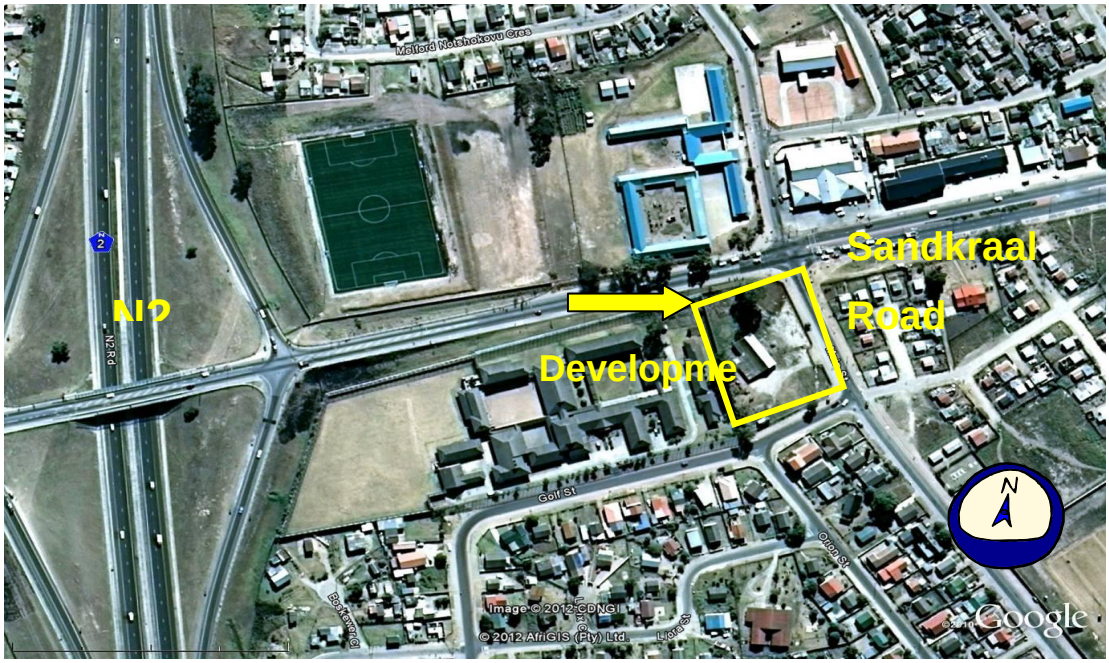


Figure 9: Development Site: Erf 11221, Parkdene (Image courtesy of Google Earth Pro, 2010).

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:	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: • 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). ***SEE APPENDIX A OF THIS BASIC ASSESSMENT REPORT***

Site Plan:	**Detailed site plan(s) must be prepared for each alternative site or alternative activity. The site plan must contain or conform to the following:**

	• 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): o Rivers. o Flood lines (*i*.e. 1:10, 1:50, year and 32 meter set back line from the banks of a river/stream). o Ridges. o Cultural and historical features. o 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. ***SEE APPENDIX A OF THIS BASIC ASSESSMENT REPORT***

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

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°	59‘	33.00“	22°	28‘	31.10“

(d) or:

~~r linear activities:~~	~~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 and addendum with co-ordinates taken every 100 meters along the route.

5. 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 OF THIS BASIC ASSESSMENT REPORT FOR SITE PHOTOGRAPHS

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

1. 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.

2. 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

3. LOCATION IN LANDSCAPE

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

~~Ridgeline~~	~~Plateau~~	~~Side slope of hill/mountain~~	~~Closed valley~~	Open valley	~~Plain~~	~~Undulating plain/low hills~~	~~Dune~~	~~Sea-front~~

(c) Please provide a description of the location in the landscape.

The site is a business zoned erf (Business Zone) located in the Parkdene area of George.

The surrounding area is characterized by various residential (low income – medium income), retail and institutional land uses. The development site is bordered by Sandkraal Road to the West, Main Street to the North and Golf Street to the East.

4. 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.

According to SANBI's Land Use Decision Support system (LUDS), the soils of the site are characterised by clay accumulation, is strongly structured and has a non-reddish colour. May occur with associated vertic, melanic and plinthic soils.

Figure 10: Soils of the development site

The soils are furthermore described as seasonally wet but can also be highly erodible.

5. 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 present or adjacent to the development site.

6. 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)	Neither the CBA or ESA biodiversity planning categories are applicable to Erf 11221. Erf 11221 is located off Sandkraal Road, and is therefore completely transformed and urban environment, see map included in Appendix D of this BAR.

(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~~	%	
~~Near Natural (includes areas with low to moderate level of alien invasive plants)~~	%	

~~Degraded (includes areas heavily invaded by alien plants)~~	~~%~~	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	100%	Erf 11221, a Business Zone erf, is completely transformed by infrastructure and lawns with no remaining natural habitat.   Only a small percentage (approximately 20% of the site) is taken up by infrastructure consisting of the housing unit occupied by Life Community Services, and two prefabricated units.

(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**						
The property falls within the Garden Route Granite Fynbos vegetation type, which has an Ecosystem Status described as "Endangered" (SANBI's Land Use Decision Support system, see Appendix J of this BAR).	~~Critical~~ Endangered ~~Vulnerable~~ ~~Least Threatened~~	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
		~~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)

According to the National Spatial Biodiversity Assessment (NSBA) the vegetation in the area consists of Garden Route Granite Fynbos which is considered to be "Endangered."

There is however, no remaining natural vegetation found on the site as the entire site has been transformed over years of using the site for various purposes (current zoning is Commercial).

There is no vegetation of conservation status on the development site, or surrounding properties, which are within a mixed residential / commercial area.

7. 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~~	~~Retirement Village~~
~~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):				

(a) Please provide a description.

Erf 11221 is a site located on the corner of Sandkraal Road and Main Road, Parkdene, with an existing Business Zone zoning.

The site is currently occupied by Life Community Services (lease agreement with the owner until such time as the property is sold) a non-profit ministry group, who provides crèche and after school care facilities and activities to children from the nearby communities.

Infrastructure available on the municipal serviced site includes a building for the housing of the activities and two prefabricated classrooms. See Appendix C for photographs of the site.

8. 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~~	~~Retirement Village~~
~~Sewage treatment plant~~	~~Train station or shunting yard~~	~~Railway line~~	Major road (4 lanes or more): N2	~~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):				

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

Erf 11221 is located approximately 3,5 kilometres South-East of the Central Business District of George. The development site is located within Parkdene area, with various residential sectors (low-medium density housing) as well as commercial and retail facilities on Sandkraal Road, in the immediate surrounding area. Three residential suburbs surrounding the Parkdene suburb include Lawaaikamp (west of Parkdene), Maraiskamp (north of Parkdene) and Thembalethu (south of Parkdene).

The closest industrial area to the site is George Industria, approximately 1,5km North-West of the development site.

9. SOCIO-ECONOMIC ASPECTS

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

Socio-Economic Aspects to the development site and surrounding area:

The development site is located in the suburb of Parkdene which is a traditionally low income area. The three surrounding suburbs (Lawaaikamp to the west, Maraiskamp to the north and Thembalethu to the south) are also traditionally low middle to low income areas. Annual income is estimated at between R1 and R76,800. High unemployment rates are also associated with these surburbs.

George: Filling station market potential:

UrbanEcon identified 22 filling stations located within the George area, including Wilderness and Harold's Bay. The number of pumps recorded varies between 10 and 28 per filling station. Additional proposed filling stations (i.e. the filling station at the approved Thembalethu Mall) and or filling stations in early development phases, increase the number of filling stations in George to 25.

Factors considered as part of the socio-economic study and the identification of the local market demand, included the following factors:

- Residential units / size of the local market;
- Vehicle ownership ratio;
- Average monthly fuel consumption;
- Support for existing filling stations;
- Average transient market fill;
- Active days / month;
- Leakage factor.

It has been noted that a monthly pump rate of 300,000 litres is considered by most local fuel providers to be the marginal amount sold in order for a filling station to be regarded as feasible, equalling 3.6million litres to be sold within the market area per annum. (UrbanEcon, 2012).

Market to be supplied by the proposed filling station:

The primary target market is (i) to cater for and service trucks which make use of Sandkraal Road as well as (ii) the transient market which make use of the N2. Sandkraal Road serves as a main access route for transient traffic accessing the Industrial area from the N2 highway. Two other filling stations are however located in Sandkraal Road, but none of which is located on the eastern side of Sandkraal Road. The proposed Parkdene filling station will conveniently serve traffic travelling in a southerly direction away from the Industrial area towards the N2. Traffic travelling in a southerly direction is currently subject to inconvenience in making use of filling station located on the western side of Sandkraal Road, which is furthermore complicated by traffic island which stretches across the length of Sandkraal Road.

The details of the existing filling stations closest to the development site are as follows:

Filling Station	**Location & distance from Erf 11221:**	**Access:**
Sasol	Albert Street; 2.5km from development site	Albert Street leftbound
Shell	Sandkraal Road; 2.1km from development site	Sandkraal Road rightbound
Total	Sandkraal Road; 0.9km from development site	Sandkraal Road rightbound

It is furthermore expected that the proposed filling station will serve transient traffic (motorists / vehicles which do not have a permanent residence in George). The transient traffic is expected to be high along Sandkraal Road throughout the year – and as such, it is expected that a large amount of transient traffic will pass by the site on a regular basis as part of business trips in and around the industrial area.

It is anticipated that the above will lessen the potential negative impact the proposed filling station may have on existing filling stations, particularly filling stations in Courtney, York Street and George in general. The Petroleum Retailers Alginment Forum (PRAF) is of the opinion that a high negative impact can be expected for existing filling stations and fuel sales. This concern was carefully assessed throughout the assessment process, including economic assessment in outcome of which it was found that medium-low negative impact can be expected. Refer to Section F,6 of this report for further details.

A total of 6,904 light vehicles passed the site during morning and afternoon peak hours, and a total of 783 heavy vehicles passed the site at the same times.

The transient market demand has been calculated by considering the interaction between the number of vehicles passing the site, together with the inception rate (the percentage of the total transient traffic which would turn into the proposed filling station) and the average fill. The calculated gross fuel volume demand at the proposed site indicates 1,703,653 litres of fuel (both light and heavy vehicles) per month.

The Economic study, based on a conservative scenario, has provided details of an adequate demand for the development site to succeed as a filling station site.

10. 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;

I 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;

I 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)."

Heritage Western Cape has been registered as a key stakeholder for this Basic Assessment environmental process. It should be noted that the proposed development site has an area of 4995m^2, which is below the S38 identified size for erven requiring heritage and archaeological specialist input.

Is section 38 of the National Heritage Resources Act, 1999, applicable to the development?		~~YES~~	NO ~~UNCERTAIN~~
If YES, explain:			
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:			
Will any building or structure older than 60 years be affected in any way?		~~YES~~	NO ~~UNCERTAIN~~
If YES, explain:			

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

11. 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):**
George Municipality: Building Plan Approval	George Municipality	Building Plan Approval	Awaiting Environmental Authorisation
Petroleum Product Act (Act 120 of 1977)	Department of Minerals & Energy	Operating Permit(s)	To follow the Environmental Authorisation

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
National Building Regulations	Building Inspectors from the local Authority (George Municipality)
SABS 0400 TT 53 (S1-6), 0108. 0131 (Parts 2 & 3), 089, SABS 1535, SABS 1830: Industry norms relating to the design, construction and maintenance of filling stations and USTs	Implementation of the Environmental Authorisation
SANS 10400 (National Building Standards)	Building Inspectors from the local Authority (George Municipality)
Spatial Development Framework (2008)	George Municipality
Community Safety By-Law	George Municipality
DEA&DP EIA Guideline Information Document on Generic Terms of Reference for EAPs and Project Schedules (August 2010)	DEA&DP
DEA&DP EIA Guideline on Need & Desirability (October 2011)	DEA&DP
DEA&DP EIA Guideline on Alternatives (October 2011)	DEA&DP
DEA&DP Guideline on Public Participation (October 2011)	DEA&DP
DEA&DP Guidelines on Environmental Management Plans (August 2010)	DEA&DP
DEA&DP Guideline for Determining the Scope of Specialist Involvement (June 2005)	DEA&DP
DEA&DP Guideline for Involving Biodiversity Specialists in EIA processes (June 2005)	DEA&DP
DEA&DP Guideline for Involving Heritage Specialists (June 2005)	DEA&DP
DEA&DP Guideline for Involving Visual & Aesthetic Specialists in EIA processes (June 2005)	DEA&DP

(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).

National Building Regulations:	The George Municipality considers the Application in terms of these National Standards prior to approval of the building plans.
South African Bureau of Standards' SANS 089, 1535, 1830 & 10089 (Part 3)	These industry norms have been described in the Environmental Management Programme, and as such the Environmental Authorisation will enforce adherence to these norms.
SANS 10400 (National Building Standards)	The National Building Standards are considered during the assessment and approval of building plans and implementation of standards are enforced throughout the construction period by means of Municipal building inspectors visiting the construction site.
Spatial Development Framework (2008)	The Spatial Development Framework was consulted to determine whether the development proposal is in line with the framework's recommendations for land use.
DEA&DP EIA Guideline Information Document on Generic Terms of Reference for EAPs and Project Schedules (August 2010)	The EIA Guideline Information Document ToR for EAPs and Project Schedules were consulted to ensure that the EAP's conduction of the process and the Project Schedule of this application correspond to these requirements.
DEA&DP EIA Guideline on Need & Desirability (October 2011)	The EIA Guideline on Need & Desirability was consulted as part of the project motivation and section of this report describing the proposal's need & desirability.
DEA&DP Guideline on Public Participation (October 2011)	The EIA Guideline on Public Participation was consulted to determine the best public participation practices to implement. Detailed report on the public participation undertaken is provided in this BAR.
DEA&DP Guideline on Alternatives (October 2011)	The EIA Guideline on Alternatives was consulted as part of developing feasible alternatives for this application. Detailed information on the alternatives assessed, are provided in in this BAR.
DEA&DP Guidelines on Environmental Management Plans (August 2010)	The Environmental Management Plans Guidelines were consulted as part of the compiling of the Environmental Management Plan (EMP) for this application to ensure that the EMP prescribed complies with the Guidelines.
DEA&DP Guideline for Determining the Scope of Specialist Involvement (June 2005)	This Guideline was consulted and considered with initial site visit to determine the specialists necessary to inform the assessment of this application and development site.
DEA&DP Guideline for Involving Biodiversity Specialists in EIA	This Guideline was consulted and considered with initial site visit.

processes (June 2005)	
DEA&DP Guideline for Involving Heritage Specialists (June 2005)	This Guideline was consulted and considered with initial site visit. The National Heritage Resources Act was also consulted and it was determined that no authorisation/studies are required, as the development activity does not trigger the listed activities in the said Act.
DEA&DP Guideline for Involving Visual & Aesthetic Specialists in EIA processes (June 2005)	This Guideline was consulted and considered with initial site visit and given (i) the urban nature of the immediate area, (ii) architectural design and placement of the facility on the development site, it is not necessary for a visual specialist to be involved.

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:	
Department of Health	Mr. M Abrahams
Department of Minerals and Energy	Mr. F Allie
Department of Transport & Public Works (Roads)	Mr. E Burger, Mr. M L Watters & Mr. P Gray
Department of Water Affairs	Mrs M Lintnaar-Strauss
George Municipality: Technical Services	Mr. H Basson & Mrs. L Mooiman
George Municipality: Planning Department	Mr. S Carstens
George Municipality: Parks & Recreation	Mr. R Laubscher
George Municipality: Community Safety	Mr. N Barnard
Eden District Municipality: Health	Mrs. E Douglas
Eden District Municipality: Environment	Mr. V Gibbs
Eden District Municipality: Planning	Mr. H Hill
South African National Roads Agency	Mrs. R de Kock
Heritage Western Cape	Mr. Calvin van Wijk
Cape Nature	Mr. Benjamin Walton

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 F**).

- The landowner and occupiers of the site were provided with written notification of the Application (10 November 2011)
- Notice Boards in English and isiXhosa were placed at the site, providing information on the process undertaken and the development proposal (24 November 2011);
- A letter drop was done for all the direct neighbours, informing them of the process be undertaken and the development proposal, and requesting their registration as I&APs (24 November 2011);
- Written correspondence were sent to neighbours not at home at the time of the letter drop (24 November 2011);
- Advertisement in the local paper (George Herald, issue of 24 November 2011) calling for I&AP registration;
- A register has been opened to collect the names, contact details and addresses of the individuals registering as I&APs for this application;
- The Draft Basic Assessment report will be available for a 40-day comment period *to all registered stakeholders*; and
- All registered stakeholders were informed via written means (e-mail, fax or post) of the report's availability, where the report can be accessed as well as the commenting period details;
- Hard copies of the Draft BAR will be available at the Conville Library and the George Municipality (Planning Department) for the duration of the commenting period;
- The Draft BAR will also be available on website: www.cape-eaprac.co.za/active;
- Hard copies of the Draft BAR's Executive Summary will be submitted to local, regional authorities and state departments, including:
    - George Municipality: Technical Services
    - George Municipality: Planning Department
    - George Municipality: Parks & Recreation (Environment)
    - Eden District Municipality: Environmental Department
    - Eden District Municipality: Planning Department
    - Department of Transport & Public Works
    - Department of Minerals & Energy
    - Department of Health
    - Cape Nature (25 May 2012);
- Heritage Western Cape has been informed of the application and BAR's availability (25 May 2012);
- All comments submitted by I&APs during the 40-day commenting period weree considered, responded to and included in this FBAR;
- Details of the comments received during this commenting period is reflected in this BAR, and copies of this documentation can be viewed in Appendix F;
- The Final BAR will be made available to registered stakeholders for a 21-day commenting period;
- All registered stakeholders have been provided with written notification of the Final BAR's availability and applicable commenting period, as well as where the reports can be viewed;
- Any additional comments received will be submitted directly to the Department, with the Final BAR, for evaluation and decision-making.

(Details of the above are included in Appendix F of this 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 F.**

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 F**.

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~~
The site is currently zoned Business Zone and the proposed filling station is in line with the Consent Use applicable to this existing zoning. (See Zoning Certificate attached to Appendix G).			

2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	~~NO~~	~~Please explain~~
The Provincial Spatial Development Framework indicates the site as "Commercial" area. The proposal therefore conforms to the PSDF requirements.			
(b) Urban edge / Edge of Built environment for the area	YES	~~NO~~	~~Please explain~~
The site is located within the town of George and therefore falls within the existing Urban Edge.			
(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~~
The proposed facility is in line with both the SDF and IDP principles and designations.			
(d) Approved Structure Plan of the Municipality	YES	~~NO~~	~~Please explain~~
The site has existing commercial rights and falls within the urban edge and developing commercial node of George.			
(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
At this stage, no formally adopted EMF exists for the George Municipal area.			
(f) Any other Plans (e.g. Guide Plan)	YES	~~NO~~	~~Please explain~~
Guide Plan: The proposal conforms to the existing Guide Plan requirements and do not require Guide Plan Amendment.			
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~~

4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with	YES	~~NO~~	~~Please explain~~

the activity being applied for) occur here at this point in time?			
The Economic Impact Assessment identified that there is a definite need for a filling station at the development site, particularly to serve transient traffic (traffic moving through George and surrounding areas) and heavy vehicles access Sandkraal Road and the N2 for commercial / business purposes.			

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~~
The Economic Impact Assessment (Appendix G of this BAR) clearly describes the need of the proposed activity, based on fuel sales and traffic counts over the peak and off-peak times, weekdays and weekends. The site has been identified as being favourable for a filling station development, to serve particularly the southern-bound traffic of Sandkraal Road (there are no other filling stations located on the southern side of Sandkraal Road, travelling out of George) as well as transient traffic access the N2 and or Industrial area for business and commercial purposes.			
6. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as **Appendix E**.)	YES	~~NO~~	~~Please explain~~
See written Municipal confirmation of civil services, included in Appendix E of this BAR. The existing site is serviced by the George Municipality. Resource conservation methods i.e. rain water tanks, low flow taps, duel flush toilets, energy saving lights will also be implemented to reduce resource consumption.			
7. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as **Appendix E**.)	YES	~~NO~~	~~Please explain~~
The Civil Services investigations reported that the proposed development can be accommodated by the existing municipal infrastructure. Service provision has been confirmed by the George Municipality (see Appendix E). The necessary road infrastructure is also in place.			
8. Is this project part of a national programme to address an issue of national concern or importance?	~~YES~~	NO	~~Please explain~~

9. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	~~NO~~	~~Please explain~~
The location of the site, on the southern boundary of Sandkraal Road, a Class 3 Road, the close proximity to the N2 (approximately 300 meters north of the Sandkraal / N2 intersection) as well as the proximity of the Industrial area are three main factors positively influencing the development site and associated filling station development proposal.			
10. How will the activity or 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 proposed activity will not impact on any sensitive natural or cultural areas.			
11. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc.)?	~~YES~~	NO	~~Please explain~~
Provided that the health and safety conditions and other mitigation measures stipulated in both this BAR and the attached EMP (Section 7.3, 7.5 & 7.11) are complied with, it is not anticipated that the proposed facility will impact on people's safety, health or wellbeing.			

12. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	~~YES~~	NO	~~Please explain~~
The design of the proposed filling station has taken from the existing land uses and commercial properties of the area in order to blend in with surrounding land uses. The proposed land use is consistent with the current and will include a commercial component. The Economic Impact Assessment has confirmed the need for a filling station development at this site, for specific target markets (transient and traffic travelling south towards the N2), and thus different target markets are applicable compared to filling stations in the vicinity (two other filling stations are located in Sandkraal Road, but both are located on the western side of Sandkraal Road, servicing traffic travelling towards George). It is therefore not anticipated that the proposed development will result in unacceptable opportunity costs to other filling stations or their business.			
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~~
Potential cumulative impacts associated with the proposed facility includes the following: • Economic (Potentially Positive) • Pollution (Potentially Negative – mitigation measures have been recommended to avoid and reduce the potential pollution impacts) • Traffic Volumes (Potentially negative – depending on the rate of suburban / commercial growth, medium term upgrades may eventually be necessary to avoid cumulative traffic volume impacts)			

• Reduced business/sales for other filling stations in the immediate vicinity of the development site (unlikely to be significant as it will be spread amongst a great number of (at least 10 in proximity to the site) filling stations, not only one or two)

14. Is the development the best practicable environmental option for this land/site?	YES	~~NO~~	~~Please explain~~

The development site described in this report has various points of merit, which contributes to the best practicable environmental option for the site. The site has established commercial rights and a filling station development is allowed within the Consent Use of the site. There is no remaining indigenous vegetation cover on the site and there is thus no conservation status of value associated with the site. There are also no other biological concerns regarding the property.

This BAR, including EMP, highlights impact avoidance, monitoring and mitigation measures allowing a high quality and best practice development for the site.

15. What will the benefits be to society in general and to the local communities?	Please explain

Service provision and convenience amenities as part of a high quality development, positive economic impacts on the local and regional markets as well as employment opportunities throughout the construction and operational phases.

A total of 38 employment opportunities are likely to be created during the construction phase, and a total of 9 permanent employment opportunities are calculated to be created during the operational phase. There is a growing need for low skilled labour in the George Municipal area, and particularly in the close vicinity of the development site and subsequent employment opportunities during both the construction and operational phases will positively contribute to alleviating unemployment in the municipal area.

16. Any other need and desirability considerations related to the proposed activity?	Please explain

The primary target market is (i) to cater for and service trucks which make use of Sandkraal Road as well as (ii) the transient market which make use of the N2. Sandkraal Road serves as a main access route for transient traffic accessing the Industrial area from the N2 highway. Two other filling stations are however located in Sandkraal Road, but none of which is located on the eastern side of Sandkraal Road. The proposed Parkdene filling station will conveniently serve traffic travelling in a southerly direction away from the Industrial area towards the N2. Traffic travelling in a southerly direction is currently subject to inconvenience in making use of filling station located on the western side of Sandkraal Road, which is furthermore complicated by traffic island which stretches across the length of Sandkraal Road.

It is furthermore expected that the proposed filling station will serve transient traffic (motorists / vehicles which do not have a permanent residence in George). The transient traffic is expected to be high along Sandkraal Road throughout the year – and as such, it is expected that a large amount of transient traffic will pass by the site on a regular basis as part of business trips in and around the industrial area.

It is anticipated that the above will lessen the potential negative impact the proposed filling station may have on existing filling stations, particularly filling stations in Courtney, York Street and George in general.

(17) Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account:

The purpose of Section 23 of NEMA is to promote the application of appropriate environmental management tools in order to ensure the integrated environmental management of activities.

The aim of these principles is to identify, predict and evaluate the actual and potential impact on the environment (including socio-economic and cultural environments), to assess alternatives and propose mitigation options which will contribute to minimizing detrimental impact.

For this application, actual and potential impacts on the various environments have been considered and assessed. The nature of the application results in minimal impacts, with potential economic impacts for other filling stations, and the contamination of both ground and surface water proving to be the most concerned impacts. However, through specialist input, design measures, a number of mitigation and monitoring measures have been proposed to avoid potential conflicts of interest and as result, contamination of ground and surface water is not considered to be a significant risk, nor is the potential threat to other filling stations in the immediate area. These mitigation and monitoring measures are described in this BAR and the attached EMP, and relevant specialist studies forming part of this BAR.

Layout Alternatives have been considered and assessed to determine where and how potential impacts on the surrounding environment (specifically socio-economic impact, traffic impacts, light pollution and sense of place) can be reduced. In addition to the alternative layouts developed, additional mitigation measures have been proposed in this regard.

Other mitigation measures have also been proposed specifically for the duration of the construction phase, to ensure that impacts are firstly avoided, but also reduced and minimized.

The mitigation measures proposed and described in both this report and the attached Environmental Management Programme will ensure that the activities proposed will be done in a controlled manner which reduces the chances of potential environmental impacts.

Finally, in accordance with the Integrated Environmental Management principles, ample opportunity is being allowed for public participation. An advert has been placed in the local newspaper, informing members of public of the proposal and available information, and included details on how members of public can register as stakeholders and through doing so, form part of the environmental process. Other key stakeholders (e.g. Councillor, direct neighbours) have been identified and notified of the process. A Notice Board was placed at the development site in both English and isiXhosa. The public advertisement and notices sent to identified stakeholders, included details on the Draft Basic Assessment Report's availability and how comment can be submitted on the application. The comments received on the Draft Basic Assessment Report will be considered by the project team, responded to, and will be included in the Final Basic Assessment Report for stakeholder review and comment.

All relevant state departments were provided with a digital copy (CD) of the Draft BAR together with the details of the comment period.

(18) Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account:

The main and applicable principles of environmental management as set out in Section 2 of NEMA emphasises the following:

- Environmental management placing people and their needs at forefront of its concern, and serve their physical, physiological, developmental, cultural and social interests equitably – *the proposed development will not exceed beyond the building restriction area and will not exceed the allowable height restrictions. Potential pollution aspects have been addressed and can be mitigated successfully through implementation of the EMP. I&APs and Stakeholders are allowed the opportunity to consider and submit comment in terms of the proposal.*

- Socially, environmentally and economically sustainable development – *the potential need and desirability of the proposed facility has been given specific attention (Economic Impact Assessment) to determine whether there is a need and or demand for the facility. The different markets (demands) have been identified and an overall positive economic impact on both the local and regional economies are expected, should the proposed facility proceed, without impacting negatively on other similar users.*

- Consideration for ecosystem disturbance and loss of biodiversity – *no conservation worthy species will be lost or damage as there are no remaining natural vegetation on the site. It is recommended that landscaping of the site apply locally occurring species.*

- Pollution and environmental degradation *– the development proposal does include the potential for pollution impacts, particularly pollution of soil, ground and surface water. Specific attention has been paid to the possibility of pollution and various mitigation and monitoring measures are proposed in this BAR and the attached EMP. It is anticipated that with the diligent implementation of all these measures, pollution will be avoided to a great extent, and the significance rating of potential contamination will be low.*

- Landscape disturbance – *The landscape is characterised by expansion of residential, commercial, retail and associated (tourism, recreational, institutional, retail and commercial) developments. The development site is adjacent to a major Class 3 road. The development of the site is considered in line with the current landscape character.*

- Waste avoidance, minimisation and recycling – *the EMP attached to this report promotes the adoption of an integrated waste minimisation approach. The attached EMP describes the waste disposal methods to be adopted, and is in line with the principles of waste avoidance, minimisation and recycling.*

- Responsible and equitable use of non-renewable resources – *energy saving is applicable to this application, energy saving measures have been recommended in this report which include energy saving bulbs, heat pumps/solar systems.*

- Avoidance, minimisation and remedying of environmental impacts; - *Total avoidance will result in no facility, although this is not the Status Quo as the site has established commercial rights. Various mitigation measures, especially in the design phase, have however been incorporated to ensure environmental impacts are kept to a minimum.*

- Interests, needs and values of interested and affected parties – *this process provides potential interested & affected parties and other key stakeholders with ample opportunity for comment, review and input on the process and available documentation. Details of the public participation process undertaken are included in Appendix F of this report and will be reported on in the BAR.*

- Access of information – *members of public, interested & affected parties, key stakeholders and relevant state departments are all provided with the available documentation contained in this BAR.*

- Promotion of community well-being and empowerment – *the development will allow some opportunity for community empowerment through construction and operational phase job opportunities. In accordance with community well-being principles, the construction team will consist of people employed from local environments.*

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;

I 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:

Erf 11221 has established commercial rights (Business Zone) and the proposed filling station is allowed within the Consent Use of the Business zoning.

The location of the site is considered feasible for the establishment of a filling and service station in proximity to the N2, and established residential and commercial sectors.

No location alternatives have therefore been considered.

(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:

ALTERNATIVE 1: (PREFERRED ALTERNATIVE)

Alternative 1 (Preferred Alternative) entails the development of a filling station on the development site, Erf 11221, Parkdene, George. The following forms part of the filling and service station:

- Hard-surfaced forecourt area for the dispensing of octane (petrol) and diesel fuels for passenger, light delivery vehicles and trucks.
- Five Underground Storage Tanks (USTs) with a combined capacity of approximately 115m^3 will be installed;
- small commercial and retail facilities, such as a convenience store;
- carwash facilities; and
- parking bays, an internal access and service roads.

Total development footprint: 769.55m^2

[See Appendix B of this BAR for layout maps].

The obvious alternative to the Filling Station proposal is that of a commercial development which may include shops, flats and businesses with a total coverage footprint nearly 100% of the site. The Applicant does not intend to develop according to the current business zoning rights and therefore the potential to develop the site as only a commercial site is not considered as part of this application as the degree to which a pure commercial development on this site will be successful, is uncertain.

(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:

ALTERNATIVE 2: (LAYOUT ALTERNATIVE)

Alternative 2 entails a layout alternative – the development components remain unchanged, except for a smaller footprint.

Total development footprint: 634.70m^2

Alternative 2 has not been chosen as the preferred alternative due to the potential traffic flow conflict on the filling station site. This layout alternative does not allow for maximum traffic flow and movement convenience. The commercial facility has a less cost effective layout and design.

Alternative 2 is furthermore slightly smaller in covered footprint, (Alternative 1 has a total covered area of 769.55m^2 compared to Alternative 2 which has a total covered area of 634.70m^2). The larger development footprint is within the Business Zone rights and coverage rights of the erf and is therefore preferred above a smaller layout as shown in Alternative 2.

(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:

A possible Technology Alternative that could be considered is the installation of a water purification / reverse osmosis systems to allow for rainwater to be purified to a standard where it can be utilised by the ancillary facilities (including the convenience store, take-away facilities and restrooms). Such an alternative is still subject to final consideration by the Applicant in consultation with the local Authority once a service level agreement is drawn up. Rain water harvesting is however recommended for cleaning purposes, landscaping and toilets.

(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:

For landscaping during the operational phase, locally occurring vegetation species should be considered. A list of vegetation types endemic to the area that can be applied to the landscaping of the site, is included in Appendix J of this BAR.

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

The "No-Go Option" is taken to mean the option of not implementing the activity (according to the document "*EIA Guideline and Information Document Series – Information Document on Generic Terms of Reference for EAPS and Project Schedules*"). The activity under consideration is the development of a filling station as proposed. Thus the No-Go Option implies the Status Quo, meaning that the proposed filling station is not developed on Erf 11221, and that the site remains in its current state with crèche and after-school care and education facilities. Under the Status Quo option it is assumed that the site will remain without significant improvement and/or adding of economic value to the site.

For general information (not for assessment purposes, since the Applicant has no intention of developing within the existing zoning rights) additional information was obtained as to what could possibly be developed within the existing zoning rights. The primary rights associated with a Business zoning allows for commercial facilities whereas consent use also allows for townhouses, apartments, place of gathering, offices, a supermarket or restaurant. The following are allowed in terms of the site's existing land use rights (zoning):

- Primary use: Shop
- Consent use: town house, flats, residential building, place of assembly, offices, supermarket, restaurant
- Floor factor: at most 1,5
- Coverage: 100%
- Height: at most two storeys
- Setback: at least 6,5m
- Street building line: zero
- Side building line: zero (provided that the council may lay down side building lines in the interest of public health or in order to enforce any law or right)
- Parking: at least one parking bay per 25m^2 of the total floor space.

Considering that 100% coverage is allowed, parking can be allowed in an underground parking area. The height of the building can thus remain two storeys, with underground parking on a separate underground level.

(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:

None

(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.

ALTERNATIVE 1: (PREFERRED ALTERNATIVE)

Alternative 1 (Preferred Alternative) entails the development of a filling station on the development site, Erf 11221, Parkdene, George. The following forms part of the filling and service station:

- Hard-surfaced forecourt area for the dispensing of octane (petrol) and diesel fuels for passenger, light delivery vehicles and trucks.
- Five Underground Storage Tanks (USTs) with a combined capacity of approximately 115m^3 will be installed;
- small commercial and retail facilities, such as a convenience store;
- carwash facilities; and
- parking bays, an internal access and service roads.

Total development footprint: 769.55m^2

ALTERNATIVE 2: (LAYOUT ALTERNATIVE)

Alternative 2 entails a layout alternative – the development components remain unchanged, except for a smaller footprint.

Total development footprint: 634.70m^2

Alternative 2 has not been chosen as the preferred alternative due to the potential traffic flow conflict on the filling station site. This layout alternative does not allow for maximum traffic flow and movement convenience. The commercial facility has a less cost effective layout and design.

Alternative 2 is furthermore slightly smaller in covered footprint, (Alternative 1 has a total covered area of 769.55m^2 compared to Alternative 2 which has a total covered area of 634.70m^2). The larger development footprint is within the Business Zone rights and coverage rights of the erf and is therefore preferred above a smaller layout as shown in Alternative 2.

NO GO OPTION

The "No-Go Option" is taken to mean the option of not implementing the activity (according to the document "*EIA Guideline and Information Document Series – Information Document on Generic Terms of Reference for EAPS and Project Schedules*"). The activity under consideration is the development of a filling station as proposed. Thus the No-Go Option implies the Status Quo, meaning that the proposed filling station is not developed on Erf 11221, and that the site remains in its current state with crèche and after-school care and education facilities. Under the Status Quo option it is assumed that the site will remain without significant improvement and/or adding of economic value to the site.

For general information (not for assessment purposes, since the Applicant has no intention of developing within the existing zoning rights) additional information was obtained as to what could possibly be developed within the existing zoning rights. The primary rights associated with a Business zoning allows for commercial facilities whereas consent use also allows for townhouses, apartments, place of gathering, offices, a supermarket or restaurant.

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. IMPACT

PLEASE DESCRIBE THE MANNER IN WHICH THE DEVELOPMENT WILL IMPACT ON THE FOLLOWING ASPECTs:

(a) Geographical and physical aspects:

Preferred Alternative: The proposed activity will not result in any geographical impacts. The proposed activity will only result in minimal physical changes as development site is an already developed site but infrastructural changes will take place. This impact will be site specific and permanent in nature. Due to the nature and character of surrounding land use types, the impact associated with this anticipated change is considered to be low and acceptable. No-Go Option: The No-Go Option (site remains vacant without development) will not result in any geographical impacts.

(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:		
The site does not fall with a Critical Biodiversity Area (CBA) and does not form part of a formally recognized Ecological Support Area (ESA). The proposal will therefore not impact on the CBA or ESA. No-Go Option: The No-Go Option will not result in any biological impacts as the site is already transformed and not subject to any critical biological aspects.		
Will the development have on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?	~~YES~~	NO
If yes, please describe:		

Terrestrial vegetation: The development proposal will not have an impact on terrestrial vegetation as there is no remaining natural vegetation on the already developed site. No-Go Option: The No-Go Option (site remains with current crèche and after school facilities development) will not result in any impacts on terrestrial vegetation. *Aquatic ecosystems:* Not applicable – there are no aquatic ecosystems in the surrounding environment and as such there are no expected aquatic ecosystem impacts.

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:		
No threatened populations of plant or animal species were found on site. The site, with established Business Zone rights, has no remaining natural vegetation. According to the National Spatial Biodiversity Assessment (NSBA), the vegetation on the site is described as belonging to the Garden Route Granite Fynbos, which is classified as being "Endangered" (NSBA). However, the site does not contain any remnants of this vegetation type and the site is completely transformed.		
Please describe the manner in which any other biological aspects will be impacted:		
Apart from the impacts described above, it is not expected that the proposed development will impact on any other biological aspects.		

(c) Socio-Economic aspects:

What is the expected capital value of the activity on completion?	± R7,500,000-00	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the activity?	± R1,680,000-00 incl VAT	
Will the activity contribute to service infrastructure?	~~YES~~	NO
How many new employment opportunities will be created in the construction phase of the activity?	Approximately 7 new employment opportunities (direct) and 31 indirect employment opportunities, thus a total of 38 employment opportunities.	

What is the expected value of the employment opportunities during the construction phase?	Value of 38 employment opportunities (salaries unknown).
What percentage of this will accrue to previously disadvantaged individuals?	It is expected that the majority of the employment opportunities will accrue to local PDIs.
How will this be ensured and monitored (please explain): The appointed contractor must be local to the George region, and if not possible, to the Garden Route region. Records must be kept of all labourers and preference must be given to employees that can provide proof of local residency. The Applicant should aim for an 80% local employment rate (including contractor, sub-contractors, specialists etc). The labour records must be supplied to the ECO and proof of local employment for PDIs.	
How many permanent new employment opportunities will be created during the operational phase of the activity?	± 9
What is the expected current value of the employment opportunities during the first 10 years?	± R11,000,000-00
What percentage of this will accrue to previously disadvantaged individuals?	± 80%
How will this be ensured and monitored (please explain):	
It is recommended that the Applicant appoint a local construction team for the construction activities to be undertaken. The EMP specifies Record Keeping with submission of these details to the ECO and Engineer.	
Any other information related to the manner in which the socio-economic aspects will be impacted:	
None	

(d) Cultural and historic aspects:

None. It is not expected that the proposed activity will have any impact on cultural and historical aspects.

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? The construction phase will generate inert waste, including excess subsoil, building rubble and construction waste. No hazardous waste will be generated during the construction phase.	Estimated at 8-10m^3 for the entire construction activity to be undertaken.	

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? Solid waste will be generated by the fuel dispensing forecourt and the retail facilities. Such waste can be described as commercial waste. The National Environmental Management: Waste Act (Act 59 of 2008) defines commercial / business waste as waste associated, as relevant to this application, with commercial and retail purposes. The solid waste to be generated by the facility is calculated to be 37kg/day, amounting to 1,110kg/month. All waste oil should be regarded as harmful (i.e. emptied oil cans or bottles used to fill up vehicles). Previously cans used to contain motor oil, but the more popular container these days are plastic bottles. Plastic motor oil containers are mainly made of petroleum based plastics and should not be mixed with standard plastic containers due to the high possibility of contaminants (oil). As such motor oil containers (metal or plastic) are generally considered not to be recyclable. Potential contaminants (i.e. fuel spillage on the forecourt mostly) which could be considered hazardous will be contained within the forecourt separator that is estimated to have a holding capacity of 10m^3 which is less than the 35m^3 capacity specified in the Act.	1,110m^3/month The weight/volume of oil containers (be it plastic/metal) is very limited at a filling station of this size.	

Where and how will the waste be treated / disposed of (describe)?

The Environmental Management Programme (EMP) attached to this Final Basic Assessment Report, stipulates how solid waste must be handled during the construction phase (may only be dumped at a registered waste site that can handle building rubble and spoil). An Integrated Waste Management approach should be adopted on site. Temporary storage of waste on site in a designated area approved by the Environmental Control Officer (ECO) prior to collection and disposal. Disposal of all waste materials must be done at suitable facilities (i.e. the George Municipal Waste Dumping Site / Vissershok for hazardous materials). At-source recycling must be encouraged on site and no dumping of any waste material on or off the site will be permitted. Waste products containing oil or other petroleum products must be kept separate from the general business waste, sealed in drum containers, and collected and disposed of on a regular basis, by a registered waste disposal company such as EnviroServ who transports hazardous materials to the registered hazardous waste site Vissershok near Cape Town. Potentially hazardous fluid (i.e. oil/fuel spills that may runoff from the forecourt area) will be contained within the forecourt separator, and when full it will be pumped out and collected by a registered supplier who will have to dispose of it at a registered waste site that can accommodate hazardous materials.		
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?		
General solid waste will be generated during the construction phase, including construction rubble and waste, scrap metal and other solid wastes associated with a construction site. It is anticipated that the construction phase general solid waste will amount to a volume of approximately 10 m^3 which is below the threshold for general waste specified in the Waste Act. Furthermore a large segment of the construction rubble will be used as infill material which will further lessen the volume of spoil that will require dumping.		
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. The George Municipality confirmed sufficient service provision is available to accommodate the proposed filling station development on Erf 11221, George (See Appendix B of this BAR).	YES	~~NO~~
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~~

Does the facility have an operating license? (If yes, please attach a copy of the license.)	YES	~~NO~~
Facility name: Vissershok		
Contact person: City of Cape Town: Waste Management		
Postal address: PO Box 298		
Cape Town	Postal code: 8000	
Telephone: 086 103 089	Cell: None available	
E-mail: wastewise@capetown.gov.za	Fax: 086 103 090 / 021-400 4302	

Describe the measures that will be taken to reduce, reuse or recycle waste:
Where the nature of the solid waste allows for re-using (e.g. broken bricks), these can be used for infilling of the construction area. Conservative use of material will promote reduce solid waste generation. During the operational phase, recycling must be encouraged on site and recycling bins must be provided and clearly marked.

(b) Emissions into the atmosphere

Will the activity produce emissions that will be disposed of into the atmosphere? Fuel vapour emissions are associated, on a local extent, with the dispensing of fuels. Similarly the exhaust fumes from vehicles also qualify as emissions into the atmosphere. It is proposed that Operational Phase mitigation measures be implemented to reduce the potential occurrence and volume of emissions disposed of into the atmosphere. Fuel vapours from the facility can be managed by implementing the following: <u>Minimising vapour / leaks</u> • Fuel nozzles should be fitted with cut off mechanisms once the back pressure reaches a certain level indicating a full tank. • Underground tank seals must be regularly checked to ensure good condition. Caps must be appropriately sealed. • Implementing Automatic Tank Gauging (ATG) rather than manual stock monitoring, as ATG reduces fuel losses (and vapour emissions) through quick and efficient fuel loss detection, as opposed to manual	**YES**	~~NO~~

stock monitoring. • Vent pipes must be constantly monitoring to ensure that they are working effectively. • Do not allow vehicles to idle unnecessary as it increases fume volumes. In addition, all procedures and equipment used within the site should comply with the Occupational Health and Safety Act (Act 85 of 1983). Compliance with the SANS 10089 Part 3's particulars for the industry standards associated with pumps and dispensers will ensure that the equipment used is accord to these standards, thereby reducing any avoidable vapour emissions. Another source of atmospheric emissions is the exhaust fumes from vehicles using the filling station facilities. In order to reduce potential volumes of atmospheric emissions, awareness campaigns should be implemented at the proposed facility to inform vehicle users of the impacts of exhaust emissions and methods to reduce these impacts. Markings should be clear and visible to prevent unnecessary congestion of vehicles which increases the idle time unnecessarily. And vehicles should be turned-off in the filling area to prevent unnecessary idling. The filling station itself does not however contribute to vehicle emissions since such already exists associated with vehicle ownership.		
If yes, does it require approval in terms of relevant legislation?	~~YES~~	NO
~~Describe the emissions in terms of type and concentration and how it will be treated/mitigated:~~		

3. WATER USE

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

Municipal – the George Municipality has confirmed water provision for the proposed development (see appendix E of this BAR)	~~Water board~~	~~Groundwater~~	~~River, Stream, Dam or Lake~~	~~Other~~	~~The activity will not use water~~

~~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:~~	~~_____ m^3~~

Please provide proof of assurance of water supply (eg. Letter of confirmation from municipality / water user associations, yield of borehole)		
Does the activity require a water use permit / license from DWAF?	~~YES~~	NO
~~If yes, please submit the necessary application to Department of Water Affairs and attach proof thereof to this application.~~		
~~Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:~~		

4. POWER SUPPLY

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

Erf 11221 is a fully serviced Municipal site currently utilising municipal services (water, sewage, electricity) and it is therefore anticipated that the George Municipality will continue to supply the development site (and new development) with electricity and other municipal services. It is anticipated that the filling station will include generators as part of the facility, to provide back up during power cuts. The said generator will be housed in a sound proof structure to lower potential noise levels when and if it is necessary to run the generator in events of power failures. It is strongly recommended that external lighting be kept to a minimum with no flashing lights. All external lights must be down-lighters to avoid unnecessary light pollution.
If power supply is not available, where will power be sourced from?
Not relevant to this application.

5. ENERGY EFFICIENCY

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

The entire facility can be equipped with energy saving light bulbs (Compact Fluorescent Lights (CFL) or Sodium Vapour (SV) lamps). The use of CFL can have an energy consumption saving of up to 60%. It is recommended that the facility implement low consumption electrical machinery. As the proposed facility will include ablution facilities, solar heating can be considered as an alternative to conventional geysers. Should conventional geysers be utilized, insulation and geyser blankets are recommended. Evaporative cooling systems can be considered as these cut down considerably on energy usage for appliances such as air conditioners.

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

See above

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 geographical and physical aspects:	*Earthworks associated with the filling station facility construction.*
Nature of impact:	Negative
Extent and duration of impact:	Local extent and a permanent duration
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low-Medium
Degree to which the impact may cause irreplaceable loss of resources:	Very Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or	Low

Very-High)	
Degree to which the impact can be mitigated:	Medium-High
Proposed mitigation:	The Environmental Control Officer must monitor construction activities to ensure that damage to the physical aspects of the site is restricted to the development footprint / demarcated area only. Demarcation of no-go areas is of importance.
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

Potential impacts on geographical and physical aspects:	*Pollution of soil and water (ground & surface) sources and soil erosion.*
Nature of impact:	Negative
Extent and duration of impact:	Local extent and a medium-long term duration
Probability of occurrence:	Unlikely
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	High
Proposed mitigation:	The Environmental Control Officer must monitor construction activities to ensure that pollution of soil and water surfaces as well as soil erosion are avoided. Some mitigation measures include the following: • All construction vehicles must be properly maintained to avoid leaks; • Vehicles used during the construction phase must be in a good / acceptable

	condition; • Appropriate erosion structures must be installed to prevent unnecessary erosion; • Where applicable, fuels must be stored in secured and bunded facilities to avoid leaks; and • Preparing of the underground storage area must be lined with an impermeable coating (i.e. suitable plastic).
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

Potential impacts on socio-economic aspects:	*Economic benefits from the construction phase*
Nature of impact:	Positive
Extent and duration of impact:	Local extent with a short term duration (duration of the construction period)
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	Positive impact: no need to reverse
Degree to which the impact may cause irreplaceable loss of resources:	None
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	High.
Proposed mitigation:	High. It is anticipated that the construction phase will generate 49 direct and new employment opportunities with an addition 72 indirect new employment opportunities to be generated.
Cumulative impact post mitigation:	High
Significance rating of impact after mitigation	High

(Low, Medium, Medium-High, High, or Very-High)	

Potential impacts on cultural-historical aspects:	None

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Potential impact:	*Construction Phase Traffic*
Nature of impact:	Negative
Extent and duration of impact:	Local extent with a short duration (only during the construction phase).
Probability of occurrence:	Highly Probable
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Mitigation measures include the following: • Prohibiting construction vehicles to park on neighbouring private property or road reserves and thereby causing congestion; • Limit construction times to normal working hours (e.g. Monday – Friday, 07h00 – 18h00 and Saturdays, 08h00 – 13h00). • Construction should be avoided on Sundays and Public Holidays.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low-Medium

Potential dust impacts:	*Dust as result of site clearing and construction vehicles.*
Nature of impact:	Negative
Extent and duration of impact:	Extent will be limited to the site and its immediate surroundings, with short term duration (construction phase duration).
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	High. The impact can be significantly mitigated through applying dust management measures (Described in the EMP).
Proposed mitigation:	The movement of construction vehicles and removal of existing vegetation from the route will create dust that could impact on the surrounding vegetation and cause inconvenience to neighbouring property owners. The following mitigation measures are recommended: • Construction vehicles must adhere to speed limits and minimisation of haul roads must be implemented; • During dry, dusty periods haul roads should be kept dampened to prevent excess dust. No potable water or seawater may be used for damping haul roads; • As an alternative, products such as road environment dust suppressants (REDS) would be recommended in order to minimize the use of water for controlling dust pollution; • Exposed stockpile materials must be adequately protected against wind (covered), and should be sited taking into

	consideration the prevailing wind conditions; and • Trucks bringing in materials must be covered to prevent dust and small particles escaping and potentially causing damage to people and property.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential noise impacts:	*Construction Phase Noises*
Nature of impact:	Negative
Extent and duration of impact:	Local extent with short term duration (construction phase duration).
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	None
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-Low
Degree to which the impact can be mitigated:	The impact can be significantly mitigated through applying noise abatement measures (Described in the EMP) and restricted construction activities to normal working hours. The site is located along a busy arterial road with already high levels of background noise.
Proposed mitigation:	Contractors are required to adhere to the National Building Regulations and Section 25 of ECA to minimise noise impacts. The following noise abatement (reduction of intensity and amount) measures should be implemented: • Provide baffle and noise screens to noisy machines as necessary;

	• Provide absorptive linings to the interior of engine compartments; • Ensure machinery is properly maintained (fasten loose panels, replace defective silencers); • Switch off machinery immediately when not in use; and • Reduce impact noise by careful handling of equipment and machinery. Due to the location of the development site (i.e. adjacent to a busy main road with currently limited existing residential dwellings) it is anticipated that the construction phase noise impact will not be of high significance or disturbance and with the described mitigation measures, the impact will not be of high significance.
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

Potential visual impacts:	*Transforming a vacant site to a built environment.*
Nature of impact:	Negative
Extent and duration of impact:	Local extent with a permanent duration
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be	Low-Medium

mitigated:	
Proposed mitigation:	The potential visual impact will be mitigated through means of facility design and visual screening. The site is located within an urban edge, and has a commercial zoning. Keeping the construction site neat and tidy at all times will reduce this impact dramatically.
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

No-Go Option: As the No-Go option refers to not implementing the proposed activity, none of the above construction phase impacts are associated with Status Quo.

(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 socio-economic aspects:	*Site development would require existing crèche and after school facilities to relocate.*
Nature of impact:	Low Negative
Extent and duration of impact:	Local extent with medium duration (i.e. until the new crèche facilities have been established)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Medium-High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium-Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-Low

Degree to which the impact can be mitigated:	Medium-Low
Proposed mitigation:	Life Community Services provide crèche and after school facilities to children from the surrounding communities. This group has a lease agreement / legal contract with the current owner, allowing the activities to continue on the site until the property has been sold. Life Community Services is firstly aware of the owner's intention to sell the property, and secondly is aware of this development application. *[A petition list was received by Cape EAPrac during December 2011, submitted by Life Community Services, in objection against the development proposal. However, DEA&DP confirmed that a petition against a development proposal is only legal and valid in the event that the petition is signed by the individuals listed. The petition submitted to Cape EAPrac was firstly not undersigned by the individuals listed, and the majority of the individuals listed, confirmed with Cape EAPrac that they were unaware of the petition list, and not necessarily against the development proposal and have not given their consent for such an objection petition. Further details are included in Appendix J of this BAR.]* Proposed mitigation can include the timely informing of Life Community Services of the time when the site needs to be relocated. Through means of this environmental process, Life Community is being kept informed of the process and progress with regards to the obtaining of the environmental authorisation for the development site. During the DBAR commenting period, a second petition was initiated by Life Community Services. A follow-up survey undertaken by the EAP confirmed a validity of 70%. Three specific concerns were raised by the stakeholders as part of this petition, namely: safety concerns including fire risk, the loss of community services offered by Life Community Services, and the questioning of the economic feasibility of the proposed facility. All these concerns are addressed in this Section 6. Personal communication with Life Community Services on 16 August 2012 confirmed the following:

	Life Community Services confirmed that they have a month-to-month lease agreement with the landowner until such time that the sale process has been finalised. Life Community Services **withdrew their objection** in writing (see Appendix F, Annexure F5 of this BAR). Life Community Services owns a small property in the immediate area. Based on the above, it has been concluded that when Life Community Services relocate and re-establish, their services would not necessarily be lost to the community.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low-Medium
No-Go option:	The development site has existing commercial zoning rights, and therefore it is anticipated that the crèche and after school facility will need to relocate at some stage in future, as and when the owner sells the property for its intended land use in terms of the existing land use rights. It should also be noted that the operation on site is not complying with the business zoning rights.
Potential traffic impacts:	*Traffic volumes impact*
Nature of impact:	Negative. Traffic to the filling station may impact on existing road networks, traffic movement, stacking distances to the intersection as well as accesses to surrounding erven and commercial units. The site is located within the urban edge, along a Class 3 road (Sandkraal Road), at an already established signalled traffic intersection, thus providing vehicles with easy and safe access without negative impact.

Extent and duration of impact:	Long term – permanent
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	A Traffic Impact Assessment has been undertaken to consider the existing traffic flow conditions of the adjacent roads as well as future traffic to be generated by the surrounding residential developments. In considering existing traffic flow and patterns (traffic counts were conducted), the potential trip generation of the facility and road network capacity analysis, it was concluded that the proposed filling station can be accommodated within the existing road network, subject to medium term (2-5 year) constructions / mitigation at the intersection of Sandkraal Road and Main Road, including the following: - A turning lane with a 12metre storage length be constructed on the western approach of Main Street; - A stop line and sign should be placed at the access junction with Main and Golf Street; - An additional phase should be implemented within the Sandkraal Road / Main Road signalised intersection, to prevent the future expected right turning saturation problem. The site layout plan provides for on-site

	circulation, contributing to good internal traffic flow.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go option:	Limited additional or increased traffic volumes are associated with the No-Go option and continued operation of the on-site crèche and after school facilities as the crèche and after-school facilities have shown to rely on pedestrian rather than motorised traffic. However, for a development in line with the existing and primary land use rights (i.e. commercial development) the traffic volumes and trip generated are anticipated to be higher than the filling station trip generation as a filling station, as opposed to commercial developments, is not considered as a trip generator.

Potential impacts on the geographical and physical aspects:	*Contamination of underlying aquifer and subsequent reduced groundwater quality.*
Nature of impact:	Negative. Where underlying aquifers are present, groundwater quality may be affected by contamination with hydrocarbon elements as result of fuel spillage at surface level or leaking from USTs and pipes. Groundwater and aquifer qualities may also be affected by corrosion and rusting of tanks, if the tanks are not designed according to standards or are utilised post their expected lifetimes. The risks can be reduced by effective environmental management principles and good maintenance of underground fuel storage systems.
Extent and duration of impact:	Limited to site and possibly immediate surroundings, long term.
Probability of occurrence:	Improbable (with mitigation). Furthermore thought to be unlikely as the biophysical site environment does not indicate the likelihood of an underlying aquifer.
Degree to which the impact can be	Medium-High

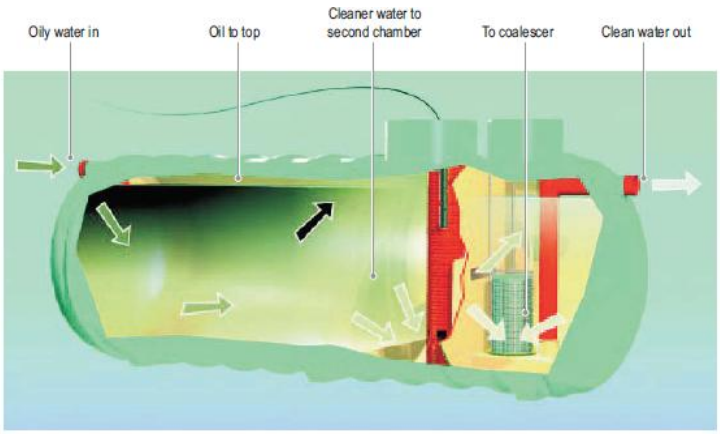
reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	High without mitigation
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	The site's biophysical environment does not indicate the likelihood of an underlying aquifer. However, preventing contamination is in line with the Best Practice principles and therefore the following preventative measures are proposed: - Capturing spilt fuel before it infiltrates into the subsurface and preventing it from entering the storm water systems removes the risk of contamination of both surface and groundwater systems. - Adequate bunding of the USTs, forecourt dispensing area and fuel tank delivery area will significantly reduce the impact of spills; - Monthly monitoring of fuel sales versus holding capacity is recommended, to detect any potential leaks; - USTs must be constructed from a corrosion-proof material, should any UST corrosion be detected, the applicable UST must be replaced immediately to avoid leakages; and - Adhering to industry norms relating to the design, construction and maintenance of filling station and USTs, including SABS 089, SABS 1535, and SABS 1830. - Regular inspection of forecourt paving at the filling points must be undertaken to test for impermeability.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low

No-Go option:	No probability of groundwater contamination or reduced water quality.
Potential impacts on the geographical and physical aspects:	*Surface Water Pollution*
Nature of impact:	Negative
Extent and duration of impact:	Limited to site and possible immediate surroundings
Probability of occurrence:	Improbable (giving biophysical site environment and proposed mitigation)
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	High (without mitigation)
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	The correct design of the hard-surfaced forecourt area can ensure that this impact is minimised. Drainage from the filling station will be carefully controlled to avoid surface water pollution. Such a design measure includes sloping the forecourt in an inwards manner to channel potential surface water / liquid flow towards forecourt inlets linked to an underground forecourt separator from where it will overflow into the sewage system. It is recommended that the forecourt floor is constructed with a minimum slope of at least 2%. Road channels will be installed around the forecourt and re-fuelling areas to direct surface water runoff through an oil separator before entering the municipal network (VKE, 2012). The fuel dispensing area will be covered with a roof

to prevent contamination of storm water with fuel elements. It is recommended that the roof covering the fuel dispensing area has an overhang of at least 10° to prevent rainwater from entering the forecourt.

Storm water drains should not be located near the forecourt (except for the forecourt separator inlets).

A forecourt separator must be installed to intercept hydrocarbon pollutants such as petroleum and oil and prevent their entry to the storm water drainage system, thus preventing the run-off of hydrocarbon contaminated surface water. The outflow from this system will drain into the sewer and not into the storm water system to avoid the pollution of surface water with fuel elements.



Schematic illustration of the proposed forecourt separator, additional brochure information is included in Appendix J of this BAR.

The total forecourt underground area should be bunded with impermeable material to isolate and separate the area of fuel handling from other sectors of the site. Not only will this isolate any potential underground contamination or spills, but it will also ensure that in the event of decommissioning, this area will be the only area (potentially) containing contaminated soil, which will need to be removed.

All cleaning and washing should be confined to the bunded forecourt area.

Avoid hosing down the forecourt, rather consider sweeping or vacuuming the area, using absorbent

	material and a water free solvent to remove grime, keep the premises clean. Regularly check for leaking roofs or storm water pipes that may be discharging water onto the forecourt or into the bunded area. Check the bund around the forecourt regularly to ensure good condition. The bund must be able to contain a fuel spill in an emergency. Storm water drains must be kept free of litter and other debris to ensure that it is effective.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go option:	No probability of surface water pollution.
Potential impacts on the geographical and physical aspects:	*Light pollution*
Nature of impact:	Neutral. The surrounding mixed suburban and commercial area off the busy Sandkraal Road is already experiencing 24-hour lighting levels, especially with Sandkraal Road being well lit after hours. It is therefore anticipated that the 24-hour filling station will not result in any additional light pollution in addition to the existing lighting levels currently associated with the existing street lights and 24-hour traffic and after hours lighting of the commercial units.
Extent and duration of impact:	Limited to site and immediate surroundings, long term to permanent duration.
Probability of occurrence:	Improbable
Degree to which the impact can be reversed:	Low

Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	The facility may not have any flashing lights and all external lighting should be downwards to limit light pollution.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go option:	No light pollution impacts associated with the No-Go option.

Potential impact biological aspects:	None
~~Nature of impact:~~	
~~Extent and duration of impact:~~	
~~Probability of occurrence:~~	
~~Degree to which the impact can be reversed:~~	
~~Degree to which the impact may cause irreplaceable loss of resources:~~	
~~Cumulative impact prior to mitigation:~~	
~~Significance rating of impact prior to mitigation~~ ~~(Low, Medium, Medium-High, High, or Very-High)~~	

~~Degree to which the impact can be mitigated:~~	
~~Proposed mitigation:~~	
~~Cumulative impact post mitigation:~~	
~~Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)~~	
No-Go option:	None

Potential impacts on the socio-economic aspects:	*Potential health and safety impacts for the general public*
Nature of impact:	Neutral
Extent and duration of impact:	Local extent with medium duration (i.e. during the operational phase)
Probability of occurrence:	Improbable
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Medium
Cumulative impact prior to mitigation:	Medium-High
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	The facility will need to comply with all relevant norms relating to the design, construction and maintenance of filling stations to avoid circumstances which could expose the general public to health and safety risks. These include the SANS codes SANS 089, SANS 1535, and SANS 1830, as well as the Occupational Health and Safety Act (Act 85 of 1993). Emergency Response Plan will need to be available and the staff will be informed / trained

	on how to implement the emergency plan. The Emergency Response Plan includes procedures to be followed in event of a fire breakout. NOTE: A service provider still needs to be confirmed, at which stage the Emergency Response Plan of the specified service provider will be included for implementation. The standard emergency procedures included in such Emergency Response Plans, have been recommended in the EMP: Section 7.3, 7.5 and 7.11.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go option:	No potential health and safety impacts for the general public are associated with the No-Go option.

Potential air pollution & odour impacts:	*Vapour leaks resulting in potential odours*
Nature of impact:	Negative. Fuel vapour emissions are associated, on a local extent, with the dispensing of fuels.
Extent and duration of impact:	Local extent with long term duration (duration of the operational phase).
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be	Medium

mitigated:	
Proposed mitigation:	It is proposed that Operational Phase EMP mitigation measures be implemented to reduce the potential occurrence and volume of emissions disposed of into the atmosphere. Vapour recovery equipment and techniques must be applied to avoid odours, air pollution and to minimise fuel loss. Fuel vapours from the facility can be managed by implementing the following: <u>Minimising vapour leaks</u> • Fuel nozzles should be fitted with cut off mechanisms once the back pressure reaches a certain level indicating a full tank. • Underground tank seals must be regularly checked to ensure good condition. Caps must be appropriately sealed. • Implementing Automatic Tank Gauging (ATG) rather than manual stock monitoring, as ATG reduces fuel losses (and vapour emissions) through quick and efficient fuel loss detection, as opposed to manual stock monitoring. • Vent pipes must be constantly monitoring to ensure that they are working effectively. In addition, all procedures and equipment used within the site should comply with the Occupational Health and Safety Act (Act 85 of 1983). Compliance with the SANS 10089 Part 3's particulars for the industry standards associated with pumps and dispensers will ensure that the equipment used is accord to these standards, thereby reducing any avoidable vapour emissions. Another source of atmospheric emissions resulting in odours is the exhaust fumes from vehicles using the filling station facilities. In order to reduce potential volumes of atmospheric emissions, awareness campaigns should be implemented at the proposed facility to inform vehicle users of the impacts of exhaust emissions and methods to reduce these impacts.

	It must be noted that fuel vapours tend to go to ground level before it dissipates with air. The site is not located directly adjacent to a residential development and is unlikely, given the already high traffic volume along Sandkraal Road with resulting exhaust fumes and vapours to contribute significantly to human health or inconvenience factors.
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go option:	None of the above potential impacts.

Potential impacts on the socio-economic aspects:	Impact that filling station will have on the feasibility of other existing filling station (in terms of shared market and potential loss of employment at other filling stations).
Nature of impact:	Negative
Extent and duration of impact:	Local, medium term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	The location of the proposed development site is one of the greatest factors that will prevent the facility from impacting on other existing facilities in terms of market share, as the proposed filling

	station at this development site will serve a different and specific market, other than the markets served by other filling stations in close vicinity to Erf 11221. The Economic Impact Assessment identified the need and desirability for a filling station at this specific site, and has shown through traffic counts, inception rate and average fill that there is a specific refuelling demand for the heavy vehicle transient market making use of the N2, for a filling and service station at this site in Sandkraal Road. The market for this filling station is not aimed at transient market (N2 traffic) alone, but also traffic travelling on the eastern side of Sandkraal Road. There is currently no filling station on the eastern side of the road catering for vehicles travelling in a southerly direction away from the industrial area towards the N2. A traffic island which stretches the length of Sandkraal Road furthermore creates complications for vehicles travelling in a southerly direction (eastern side of Sandkraal Road). This inconvenience of crossing towards the western side of Sandkraal Road for refuelling, increases with vehicle size, and as such heavy vehicles in particularly seem to have difficulty in refuelling prior to accessing the N2. For this reason, the proposed filling station has been designed to accommodate and service heavy vehicles and trucks (in addition to light and passenger vehicles). The Economic Impact Assessment identified and calculated a steady demand during the week, as well as a lower, but still significant demand for weekends at this development site. The gross fuel demand at the proposed site has been calculated as 1,703,653 litres per month. (*A possible leakage of 97,5% was included in this demand calculation – see the Economic Impact Assessment included in Appendix G for further details).* Taking the above details into account, it is not anticipated that the proposed filling station at Erf

	11221, Sandkraal Road, will impact the feasibility and markets of existing filling stations in close proximity to the development site.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-Low
No-Go option:	The site in its Business Zone form cannot have any impact on the feasibility of any other filling station in terms of shared market and or employment.

Potential noise impacts:	*Noise pollution from traffic visiting the facility for the re-fuelling and commercial facilities.*
Nature of impact:	Neutral
Extent and duration of impact:	Local extent with permanent duration
Probability of occurrence:	Highly Probable
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Very Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	It should be taken into account that the ambient noise (existing background noise level) in the area is already high as a result of the existing traffic volumes that use Sandkraal Road bordering the development site. Sandkraal is a Class 3 road with Forecourt radios are commonly prohibited after-hours, contributing to reduced noise levels. It is highly unlikely that the traffic associated with the proposed filling station (compared to the

	existing traffic volumes from Sandkraal Road) will be considered a noise source. As such, additional noise pollution from the facility will be minimal. Air-conditioning fans will face towards the remainder of the subdivided erf, which does not have a residential zoning and as such is unlikely to be considered a nuisance. The facility can apply mitigation measures to reduce noise pollution as result of the facility, including the following: • Avoid loud background music that is clearly audible away from the forecourt; • Secure drain grates to avoid noise caused by vehicles driving over them; and • Avoid receiving fuel and other deliveries at night.
Cumulative impact post mitigation:	Very Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low
No-Go option:	As the No-Go option refers to not implementing of the proposed activity, there can be no noise (traffic generated) pollution associated with the No-Go option.

Potential sense of place impacts:	*Filling station's potential impact on the suburban sense-of-place*
Nature of impact:	Low negative
Extent and duration of impact:	Local extent with long term duration
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	The site currently functions as a crèche and after school care facility and is a fully serviced municipal site with established Business Zone rights. The proposed development is proposed within a busy mixed suburban / commercial area bordering the busy Sandkraal Road (Class 3 Road) approaching Thembalethu and the N2. The existing sense-of-place is therefore defined as urban/commercial. However, the residential units bordering the eastern side of the development (Golf Street) are expected to experience a low negative sense of place impact, as these residential units do not already front on commercial aspects such as the residential units north of the development, bordering Sandkraal Road and the commercial environment here. The site falls within the urban edge of George and as such development is expected to take place within reasonable limits and with associated and acceptable impacts on the sense-of-place. No specific mitigation measures exists other than architectural design and mitigation measures (see below).

Architectural impressions of the proposed Parkdene Filling Station (see also Appendix B of this BAR).

Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go Option	None

Potential visual impacts:	*Visual impact*
Nature of impact:	Neutral. The site is a currently developed site with infrastructure and therefore the development of the proposed filling station will have limited visual impact.
Extent and duration of impact:	Local extent with a medium duration (as the area continues to develop, the potential visual impact may become negligible).
Probability of occurrence:	Improbably
Degree to which the impact can be reversed:	Low

Degree to which the impact may cause irreplaceable loss of resources:	Very Low
Cumulative impact prior to mitigation:	Medium-Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Medium-High
Proposed mitigation:	Architectural design alternatives have been assessed (Layout Alternative 1 versus Layout Alternative 2) to develop the design alternative with the lowest visual impact, and keeping with the existing surrounding visual levels and approaches. It is proposed that the large blue gum trees on the development site (southern and western boundaries of the site) remain intact, as this is an effective visual distraction from the forecourt areas (see Architectural Impressions above and in Appendix B):

	No further visual screening is thought to be necessary and is therefore not specifically recommended.  
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go Option	None

Potential health & safety impacts:	*Fire & Explosion risks*
Nature of impact:	Negative. Fuel storage and transport is a potential health and safety risk which could lead to fires and explosions.

	Fire management when dealing with flammable and combustible materials in close proximity to urban development is highly relevant.
Extent and duration of impact:	Local extent with a medium duration (duration of the operational phase).
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Medium
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Compliance with Acts, Guidelines, Policies and Municipal By-Laws (including but not limited to the Health & Safety Act, Community Fire & Safety By-Law, National Building Regulations etc.) as described in this report will be compulsory for the avoidance of fire risks. Other measures that need to be implemented to avoid fire risks include the following: • On-site fire extinguishers available; • Monthly monitoring on all equipment for fuel leakages; • All staff must be adequately trained and informed of the procedures for dealing with a potential fire/emergency; • Refilling of the USTs must not always be attended; • Automatic cut-off devices must be installed on all refuelling equipment to avoid fuel spillages; • An Emergency Plan will be available; and • Contact details for local Disaster Management Services and Fire Department must be clearly and easily visible to both staff and members of public.

Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go Option	None

Potential social / safety impact:	*Risk for traffic related incidents for children and learners in the area.*
Nature of impact:	Neutral. The surrounding area is characterised by a number of schools and after care facilities. As such the concern was raised that the filling station development could intensify the risk of traffic related incidents for children making use of Sandkraal and Main Road.
Extent and duration of impact:	Local extent with a medium duration (duration of the operational phase).
Probability of occurrence:	Improbable
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Medium
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Under the current situation, it is known that Traffic Department officials are present at the school crossings on Sandkraal Road (at the junction of Sandkraal and Main Road) at peak times when children and learners leave the premises (i.e. 13h-14h00), assisting and escorting younger children across street crossings. It is furthermore proposed that the filling station erect warning signs at entrance and exist points

	warning motorists that it is a high-risk zone for children crossing the streets.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
No-Go Option	Same impact expected for No-Go option.

(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 highly unlikely that the facility will be entirely decommissioned in the near future, as decommissioning will result in a loss of revenue and job opportunities. In the event of decommissioning, a detailed Decommissioning Plan will be needed.

Potential impacts on the geographical and physical aspects:	None

Potential impact biological aspects:	*Potential contamination of soil and water resources*
Nature of impact:	Negative
Extent and duration of impact:	Short term (duration of decommissioning phase)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be	High

mitigated:	
Proposed mitigation:	Adherence to a Decommissioning Plan, including appropriate management and monitoring will be of critical importance to avoid contamination associated with the decommissioning phase. The forecourt underground area as well as the area surrounding the USTs will be bunded / encased with an impermeable material. With decommissioning, soil contamination will be restricted to these two contained areas. Careful removal and proper disposal of any petroleum products, USTs and pipework will be necessary to avoid unnecessary contamination. Any hazardous waste must be disposed of at a recognized hazardous waste disposal facility. With closure of the site, it is recommended that a contamination assessment be undertaken to determine if any contamination has taken place, which will indicate whether any rectification and site rehabilitation will be needed. Considering the design of the facility (underground encasings) it will possible to restrict the contamination assessment to the two described areas.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impacts on the socio-economic aspects:	*Loss of revenue and job opportunities*
Nature of impact:	Negative. The Economic Impact Assessment indicated that the operational phase of the facility will have positive direct and indirect impacts on new business sales / generation. It will be encouraged that the business sales involved, be sourced locally as far as possible to maximise the direct and indirect economic impacts. A positive number of employment opportunities will be available during the operational phase. These economic benefits will be lost if the facility ceases

	to operate.
Extent and duration of impact:	Long term
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Mitigation would require a similar commercial facility to be established to provide the job opportunities and revenue as noted under the facility.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impacts on the cultural-historical aspects:	None

Potential noise impacts:	Decommissioning phase noise impact
Nature of impact:	Negative.
Extent and duration of impact:	Short term (duration of the decommissioning phase)
Probability of occurrence:	Highly probable
Degree to which the impact can be reversed:	Medium

Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Medium
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	As in the construction phase, the Contractor will be required to attempt to reduce noise pollution, including the following measures: • Adherence to the National Building Regulations and Section 25 of ECA to minimise noise impacts. • Provide baffle and noise screens to noisy machines as necessary; • Provide absorptive linings to the interior of engine compartments; • Ensure machinery is properly maintained (fasten loose panels, replace defective silencers); • Switch off machinery immediately when not in use; and • Reduce impact noise by careful handling of equipment and machinery.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium-Low

Potential visual impacts:	None

No-Go Option: As the No-Go option refers to not implementing the proposed activity, none of the above decommissioning phase impacts are associated with No-Go option.

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:

The following specialist studies / investigations have been undertaken and are included in Appendix G of this BAR for stakeholder review and comment:

- Traffic Impact Assessment
- Engineering Services Report
- Economic Feasibility Study and Impact Assessment

At present there is no need for further specialist investigations or assessments other than what have already been undertaken. Should further impacts be identified which necessitates further specialist studies, then these will be considered / undertaken as part of this Basic Assessment Report.

8. IMPACT SUMMARY

Please provide a summary of all the above impacts.

Construction Phase Impacts

Impact: Earthworks associated with the filling station facility construction.
A negative and definite impact, but with recommended avoidance and mitigation measures as described above, this impact will be of very low significance.

Impact: Pollution of soil and water (ground & surface) sources and soil erosion.
A negative, but unlikely impact and with recommended avoidance and mitigation measures as described above, this impact will be of very low significance.

Impact: Economic benefits from construction phase.
A positive and highly probable impact. No mitigation required.

Impact: Construction phase traffic.
A negative and highly probable impact. With avoidance and mitigation measures, this potential impact will be of low-medium significance.

Impact: Dust as result of site clearing and construction vehicles.
A negative and probable impact, avoidance and mitigation measures have been recommended to ensure that this impact remains of low significance.

Impact: Construction phase noises.
A negative and high probable impact. Avoidance and mitigation measures have been recommended and it is expected that the significance of the impact will be very low.

Impact: Visual impact associated with the transformation and new construction.
A negative but improbable impact. The layout alternative has been developed to ensure that the impact is avoided and minimised. Mitigation measures have been recommended, and with implementation, the significance will be very low.

Operational phase impacts:

Impact: Contamination of underlying aquifer and subsequent reduced groundwater quality.

A negative but improbable impact. Mitigation measures have been recommended and the expected significance of the impact is very low.

Impact: Surface water pollution

A negative impact but of improbable nature. Avoidance and mitigation measures have been recommended and with implementation, the significance of this impact will be very low.

Impact: Light pollution.

A neutral and improbable impact. Mitigation measures are still recommended to ensure that the impact significance remains low.

Impact: Potential health and safety impacts for the general public.

A neutral and improbable impact. Avoidance and mitigation measures have been recommended, and with implementation, the significance of this impact will be low.

Impact: Additional traffic volumes.

A negative and probable impact. No immediate mitigation will be required, but medium term road amendments (2-5 year term) will be required to ensure that the impact remains of low significance.

Impact: Vapour leaks resulting in potential odours.

A negative and probable impact. Detailed avoidance and mitigation measures have been prescribed in this BAR and EMP, and with implementation, the significance of this impact will be low.

Impact: Site development would require existing crèche and after school facilities to relocate.

A low-medium and probable impact. The legal contract between the landowner and occupiers (Life Community) ensured that the occupiers are not unaware of the proposed selling and development of the property, and it is therefore expected that this contract allows the organisation sufficient time to find another suitable premise in the community to continue their important service to the local children. Life Community Services confirmed that they own a small property in the immediate area. As such, the relocation of the services from the property does not necessarily mean that the existing services will be lost to the immediate community.

Impact: Impact that filling station will have on the feasibility of other existing filling station (in terms of shared market and potential loss of employment at other filling stations).

A negative and probable impact. However, the location of the site is the biggest factor contributing to the avoidance of this impact, as a filling station at this site will serve a different primary market. The significance of the impact remains medium-low.

Impact: Noise pollution from traffic visiting the facility for the re-fuelling and commercial facilities.

A neutral impact of highly probable nature. Some mitigation measures have been recommended above, and with implementation, the significance of the impact will be very low.

Impact: Filling station's potential impact on the suburban sense-of-place.

A low negative impact of probable nature. The location of the site is the only possible mitigation

measure. Significance remains low.

Impact: Visual impact

A neutral and improbable impact. Mitigation measures have been recommended and the expected significance of the impact is low.

Impact: Fire & Explosion risks

A negative and probable impact. Detailed measures for avoidance and mitigation have been stipulated in this BAR and EMP, and with implementation, the significance will be low.

Decommissioning and closure phase impacts:

Impact: Potential contamination of soil and water resources.

A negative and probable impact for this phase. Detailed avoidance and mitigation measures have been recommended, and with implementation, the significance of this impact will be low.

Impact: Loss of revenue and job opportunities.

A negative and highly probable impact. Mitigation would require a similar commercial facility to be established to provide the job opportunities and revenue as noted under the facility and only with such a substituted development will the impact significance be low.

Impact: Decommissioning phase noise impact

A negative and highly probable impact. Mitigation measures have been recommended to reduce the significance of this impact, and with implementation, the significance will be medium-low.

No-Go Option/Status Quo

There are no impacts associated with the No-Go Option/Status Quo. The positive impacts associated with the development activity (economic impacts including employment opportunities, economic injection for the local municipal area, new business sales and additional GGP) will not occur in event that the No-Go option remains and neither will the potential negative impacts occur.

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.

An Environmental Control Officer (ECO) must be appointed to oversee the construction phase (including the implementation of the Environmental Management Programme and any applicable Conditions of Authorisation).
The existing mature blue gum trees on the southern and western boundaries of the site must remain intact as they are serving as effective visual screening for the filling station.
The attached EMP (including environmental management principles for the construction, operational and potential decommissioning phase) must be adhered to.
The facility design considerations as described in the BAR and EMP, have been recommended specifically for avoiding pollution / contamination and visual intrusion, and should be implemented.

The facility must comply with all relevant norms relating to the design, infrastructure (i.e. Underground Storage Tanks), construction and maintenance of filling stations to avoid circumstances which could expose the environment as well as the public to contamination, health or safety risks.
A forecourt separator must be installed to capture petroleum pollutants and preventing these pollutants from entering into the storm water system.
The solid waste (building rubble) to be generated during the construction period should be disposed of at a recognized site (i.e. the George Municipal Waste Dumping Site).
Waste containing oil i.e. empty oil containers, must be kept separate from the general waste stream, sealed in a drum and collected and disposed of by a recognised supplier to the licensed hazardous waste site at Vissershok, Cape Town.
The fuel dispensing forecourt area, as well as the bulk refuelling area must be bunded to allow for the capturing of spilt fuel before it infiltrates into the subsurface, preventing spilt fuel from entering the storm water systems thus avoiding the risk of contamination of both surface and groundwater systems.
All energy and water conservation measures and waste management principles described in the EMP must be taken into account.
An Audit Report must be prepared and submitted to the Department of Environmental Affairs & Development Planning one year following the commencement of operation.

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

It is anticipated that the Applicant will be able to implement the mitigation measures proposed. It is recommended that an Environmental Control Officer oversee the implementation of the recommended mitigation measures. Operational mitigation measures are reasonably easy to implement particularly with the support and guidance of the EMP in place.

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

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

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

Assessment methods used included the following: • Site visits to determine the nature and sensitivity of the site and to gain an

understanding of the surrounding environment;
- Consultation with the Applicant to gain an understanding of the need for the proposed activity as well as the nature of the proposed activity;
- Consultation with stakeholders (see the complete stakeholder list as part of Appendix F);
- Consultation with local municipality;
- Obtaining of specialist input;
- Consultation with the Department of Environmental Affairs & Development Planning regarding the process and requirements;
- Consideration of the applicable Legislation, Guidelines & Policies (complete list indicated in Section 10).

The assessment methods used are anticipated to be adequate for the nature of the application and site.

(b) Please describe the assessment criteria used.

The assessment criteria used includes the following:

- *Nature of the impact: Impacts have been described in terms of whether it will have a positive or negative impact, as well as a description of what or who will be affected.*
- *Extent of the impact: Impacts were considered in terms of whether it will affect the site, the surrounding area, or on a wider scale (i.e. regional / national).*
- *Duration of the impact: Impacts have been assessed in terms of the anticipated duration of the impact. The lifetime of impacts were determined and classified as*:
    - *short term* (e.g. during the construction phase);
    - *medium term* (e.g. during part or all of the operational phase);
    - *long term* (e.g. beyond the operational phase, but not permanently);
    - *permanent (*where the impact is for all intents and purposes irreversible; or
    - *Discontinuous or intermittent* (where the impact may only occur during specific climatic conditions or during a particular season of the year).

- *Intensity or magnitude:* The size of the impact (if positive) or its severity (if negative) have been assessed as:
    - *low,* where biodiversity is negligibly affected or where the impact is so low that remedial action is not required;
    - *medium,* where biodiversity pattern, process and/or ecosystem services are altered, but not severely affected, and the impact can be remedied successfully; and
    - *high,* where pattern, process and/or ecosystem services would be substantially (i.e. to a very large degree) affected. If a negative impact, could lead to irreplaceable loss of biodiversity and/or unacceptable consequences for human wellbeing.

- *Probability:* The anticipated impacts have been assessed as having either an improbable, probable, highly probable or definite probability of occurring.
- *Significance:* The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:
    - *low,* where it would have negligible effect on biodiversity, and on the

decision;
- *medium,* where it would have a moderate effect on biodiversity, and should influence the decision;
- *high,* where it would have, or there would be a high risk of, a large effect on biodiversity. These impacts should have a major influence on the decision;
- *very high,* where it would have, or there would be a high risk of, an irreversible negative impact on biodiversity and irreplaceable loss of natural capital or a major positive effect. Impacts of very high significance should be a central factor in decision-making.

- Confidence levels were applied to the assessment:
  - *low,* where there is little confidence in the prediction, due to inherent uncertainty about the likely response of the receiving ecosystem, or inadequate information;
  - *medium,* where there is a moderate level of confidence in the prediction; or
  - *high,* where the impact can be predicted with a high level of confidence.

(Source: Adapted from criteria used by the Department of Environmental Affairs and Tourism, 1998.)

(c) Please describe the gaps in knowledge.

Existing filling stations in proximity to the development site were approached by the economist as part of a survey necessary to obtain relevant industry information. Filling stations were hesitant to supply the necessary information. Alternative available information, including specifically the Industry Averages from. With this national industry information, the gap in knowledge of having access to the same specific information for *all* local and the existing filling stations, is considered insignificant.

(d) Please describe the underlying assumptions.

- The assumption is made that the information on which this report is based (project information) is correct, factual, and truthful.
- It is assumed that all the relevant mitigation measures specified in this report will be implemented in order to ensure minimal negative impact on the surrounding environment.

(e) Please describe the uncertainties.

Obtaining the necessary retailers license from the Department of Minerals and Energy, followed by Building Plan Approval from the George Municipality.

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	YES	~~NO~~

activity applied for.		

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:
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
Erf 11221 is located within an established suburb / commercial area of George, within the urban edge of the town. The development site is a fully civil serviced site with an existing services demand which exceeds the future services demand (VKE, 2012). Erf 11221 is zoned Business Zone, with Consent Use for a filling station. All building activities will be contained within the building lines and the footprint is limited to a third of the site size. The Economic Impact Assessment identified the demand for a filling station at this specific location of Sandkraal Road, George, and the specific target market has been identified as heavy vehicle traffic and traffic travelling south towards the N2 (transient market). It is anticipated that the proposed development, servicing both octane and diesel fuel to light and heavy vehicles, will be adequately equipped to serves this market segment. In addition, the Economic Impact Assessment concluded that the proposed filling station will have a positive impact on New Business Sales, positive impact on GGP, and positive impact on employment. A demand for 1,703,653 litres per month was calculated for the development site. This demand calculation shows that the development will be economically feasible, as the Industry Averages (quoted in Economic Impact Assessment) indicated that a minimum of 300,00 litres per month fuel sales are required for a filling station to be economically feasible. The development site is an already developed site with existing infrastructure and buildings, with no indigenous vegetation remaining. The potential impacts identified have been assessed and suitable mitigation and monitoring measures have been recommended in this BAR and the attached Environmental Management Programme for both the construction and operational phases. Some positive impacts have been identified, including a positive impact on both the local and regional economies as result of the proposed facility. With the implementation of these mitigation and monitoring measures, it is not anticipated that the proposed development will result in any negative impact of high significance.

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.
The facility must comply with all relevant norms relating to the design, infrastructure (i.e. Underground Storage Tanks), construction and maintenance of filling stations to avoid circumstances which could expose the environment as well as the public to contamination, health or safety risks.
A forecourt separator must be installed to capture petroleum pollutants and preventing these pollutants from entering into the storm water system.
The solid waste (building rubble) to be generated during the construction period should be disposed off at a recognized site (i.e. the George Municipal Waste Dumping Site).
The filling station forecourt, as well as the bulk refuelling area must be bunded to allow for the capturing of spilt fuel before it infiltrates into the subsurface, preventing spilt fuel from entering the storm water systems thus avoiding the risk of contamination water systems.
All energy and water conservation measures and waste management principles described in the Environmental Management Programme must be taken into account.
The attached Environmental Management Programme (including environmental management principles for the construction, operational and potential decommissioning phase) must be adhered to.
The Filling station must erect warning signs for motorists to be careful of pedestrians and school children using the Sandkraal / Main Road.
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.
Not relevant: The Applicant intends to undertake and complete the activity within the specified authorisation timeframe.

SECTION I: APPENDICES

The following appendices must be attached to this report:

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**	✓
Appendix E:	**Permit(s) / license(s) from any other organ of state including service letters from the municipality**	✓
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.**	✓
Appendix G:	**Specialist Report(s)**	✓
Appendix H :	**Environmental Management Progamme**	✓
Appendix I:	**Additional information related to listed waste management activities (if applicable)**	**N/A**
Appendix J:	**Any Other (if applicable) (describe)** – PLANT SPECIES LIST; DEA&DP Meeting Minutes & Forecourt Brochure	✓

DECLARATIONS

1. 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:

2. THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

I ....., 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:

Name of company:

Date:

3. 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: