



## Gauteng Department of Agriculture and Rural Development (GDARD)

### **Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)**

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

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#### **Kindly note that:**

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
  2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
  3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
  4. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
  5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
  6. An incomplete report shall be rejected.
  7. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
  8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
  9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
  10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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#### **DEPARTMENTAL DETAILS**

Gauteng Department of Agriculture and Rural Development  
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch  
P.O. Box 8769  
Johannesburg  
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch  
18<sup>th</sup> floor Glen Cairn Building  
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345  
Department central telephone number: (011) 355 1900

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# BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

<b>File Reference Number:</b>					
<b>Application Number:</b>					
<b>Date Received:</b>					

**\* Submission to State Departments (Number 3 above)**

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

Is a list of State Departments referred to above been attached to this report?

if no, state reasons for not attaching the list.

## SECTION A: ACTIVITY INFORMATION

### 1. ACTIVITY DESCRIPTION

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

**Construction of a filling station on Erf 15673, Stretford, Orange Farm, Johannesburg**

Select the appropriate box

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

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

**NO**

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

**N/A**

If yes, have you applied for the authorisation(s)?

<b>N/A</b>	
<b>N/A</b>	

If yes, have you received approval(s)? (attach in appropriate appendix)

### 2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
<b>National Environmental Management Act No. 107 of 1998 as amended.</b>  <b>GNR. 544</b> <b>Listing Notice 1: Item 13</b>  '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 meters.'	National & Provincial	August 2010
<b>Integrated Environmental Management:</b> Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development. Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that	Department of Environmental Affairs and Tourism (DEAT)	1992

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environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development (Department of Environmental Affairs: DEAT, 1992). The IEM guidelines intend endearing a pro-active approach to sourcing, collating and presenting information at a level that can be interpreted at all levels.		
<b>National Heritage Resource Act, 1999 (Act No. 25 of 1999):</b> In terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), a Heritage Impact Assessment has not been conducted for the site since the site is less than 0, 5 hectares (ha) in extent.	South African Heritage Resources Association (SAHRA).	1999

### 3. ALTERNATIVES

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

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

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

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
1	Proposed Development	The proposed project entails the construction of a filling station, a refreshment area, a convenience store and a potential car wash facility. The filling station will have 3 x 46kl and 1 x 23kl underground storage tanks (total capacity 161kl).
2	Design alternatives (Layout 2)	Layout 2

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

Only Design alternatives (Layout 1 and Layout 2) were considered for this development, see **Appendix A**

**NOTE: The numbering in the above table must be consistently applied throughout the application report and process**

### 4. PHYSICAL SIZE OF THE ACTIVITY

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

Proposed activity	<b>Size of the activity:</b>
<b>Alternatives:</b>	3017 m <sup>2</sup>
Alternative 1 (if any)	3017 m <sup>2</sup>
Alternative 2 (if any)	N/A
	Ha/ m <sup>2</sup>

or, for linear activities:

Proposed activity	<b>Length of the activity:</b>
<b>Alternatives:</b>	N/A
Alternative 1 (if any)	
Alternative 2 (if any)	
	k/km

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

Proposed activity	<b>Size of the site/servitude:</b>
<b>Alternatives:</b>	3017 m <sup>2</sup>
Alternative 1 (if any)	3017 m <sup>2</sup>
Alternative 2 (if any)	
	Ha/m <sup>2</sup>

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## 5. SITE ACCESS

### Proposal

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

YES	
-----	--

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

Describe the type of access road planned:

Include the position of the access road on the site plan.

### Alternative 1

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

YES	
-----	--

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

Describe the type of access road planned:

Include the position of the access road on the site plan.

### Alternative 2

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

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

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

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

Section A 6-8 has been duplicated

Nil

Number of times

(only complete when applicable)

## 6. SITE OR ROUTE PLAN

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

- the scale of the plan, which must be at least a scale of 1:2000 (scale cannot be larger than 1:2000 i.e. scale cannot be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

## 7. SITE PHOTOGRAPHS

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

## 8. FACILITY ILLUSTRATION

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

See alternative layouts attached as **Appendix A** of this report

# SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

**Further:**

**Instructions for completion of Section B for linear activities**

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

Section B has been duplicated for sections of the route Nil times

**Instructions for completion of Section B for location/route alternatives**

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

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

**Please Note: For the purposes of This BA, Envirolution identified one Proposed Alternative for the proposed construction of a filling station on Erf 15673, Stretford, Orange Farm, Johannesburg. The Impact Assessment assesses these alternatives (Preferred Alternative and Alternative 1) as having similar impacts**

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

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

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

Section B - Section of Route N/A (complete only when appropriate for above)

Section B – Location/route Alternative No. N/A (complete only when appropriate for above)

**1. PROPERTY DESCRIPTION**

**Property description:** Erf 15673, Stretford, Orange Farm, Johannesburg  
(Farm name, portion etc.)

**2. ACTIVITY POSITION**

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

**Alternative:**

Latitude (S):	Longitude (E):
- 26.47053	27.87002

**In the case of linear activities:**

**Alternative:**

Latitude (S):	Longitude (E):

- Starting point of the activity
- Middle point of the activity
- End point of the activity

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

Addendum of route alternatives attached

### 3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
	<b>X</b>					

### 4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
				<b>X</b>		

### 5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

Shallow water table (less than 1.5m deep)  
Dolomite, sinkhole or doline areas

	<b>NO</b>
	<b>NO</b>
	<b>NO</b>
	<b>NO</b>
	<b>NO</b>
	<b>NO</b>
	<b>NO</b>
	<b>NO</b>

Seasonally wet soils (often close to water bodies)  
Unstable rocky slopes or steep slopes with loose soil  
Dispersive soils (soils that dissolve in water)  
Soils with high clay content (clay fraction more than 40%)  
Any other unstable soil or geological feature  
An area sensitive to erosion

(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).

**Please also see Geotechnical report attached as Appendix D2**

b) are any caves located on the site(s)  **No**

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

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

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

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

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

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

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

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

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

### 6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?  **NO**

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

### 7. GROUNDCOVER

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

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

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Natural veld - good condition % =	<b>Natural veld with scattered aliens</b> 55% =	<b>Natural veld with heavy alien infestation</b> 15% =	Veld dominated by alien species % =	Landscaped(vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	<b>Bare soil</b> 30% =

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

Are there any rare or endangered flora or fauna species (including red list species) present on the site

	<b>NO</b>
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If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	<b>NO</b>

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site?	<b>NO</b>
If YES, specify and explain:	
Was a specialist consulted to assist with completing this section	<b>NO</b>

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


### 8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial <sup>AN</sup>	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport <sup>N</sup>	23. Train station or shunting yard <sup>N</sup>	24. Railway line <sup>N</sup>	25. Major road (4 lanes or more) <sup>N</sup>
26. Sewage treatment plant <sup>A</sup>	27. Landfill or waste treatment site <sup>A</sup>	28. Historical building	29. Graveyard	
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam <sup>A</sup>	34. Small Holdings	35. Hospital / Clinic
Other land uses (describe):				

**NOTE: Each block represents an area of 250m X250m**

	North					
	9	9	9	24	1	
	1	9	1	24	1	
West	1	35	1	24	1	East
	1	35	1	24	1	
	12	12	1	23	1	
	South					

 = Site

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

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

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

YES	
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- **Air Quality Report attached as Appendix D1**
- **Geotechnical Assessment attached as Appendix D2**
- **Traffic Impact Assessment attached as Appendix D3**

## 9. SOCIO-ECONOMIC CONTEXT

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

The site is located within a well lit-up residential area. The development of filling stations and associated infrastructure is important to sustain the present and future development of the area. It is anticipated that the proposed filling station will improve the character of the area and will increase the market value of surrounding properties. The filling station will have amenities such as a car wash, a convenience store and an ATM which will assist in serving the community and increasing employment opportunities. The proposed filling station infrastructure will fit in with the anticipated new shopping centre infrastructure intended for the area.

## 10. CULTURAL/HISTORICAL FEATURES

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

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

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
  - (i) exceeding 5 000 m2 in extent; or
  - (ii) involving three or more existing erven or subdivisions thereof; or
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.



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

	<b>NO</b>
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If YES, explain:

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

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

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Will any building or structure older than 60 years be affected in any way?  
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

	<b>NO</b>
	<b>NO</b>

If yes, please attached the comments from SAHRA in the appropriate Appendix

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

### 2. LOCAL AUTHORITY PARTICIPATION

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

Has any comment been received from the local authority?

Yes	
-----	--

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

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

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**Mr Etienne Allers** from City of Joburg-Environmental Management requested to be registered on the stakeholder database.

Mr Allers has been registered on the stakeholder database and the draft BAR will be sent to him for review and comments.(See Public Participation Appendix C)

**3. CONSULTATION WITH OTHER STAKEHOLDERS**

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

Has any comment been received from stakeholders?

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

Please see attached Public Participation Appendix C6 for the comments and responses report.

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

**4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS**

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

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

**5. APPENDICES FOR PUBLIC PARTICIPATION (APPENDIX C)**

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

- Appendix 1 – Proof of site notice
- Appendix 2 – Written notices issued to those persons detailed in 1 (b) to 1 (f) above
- Appendix 3 – Proof of newspaper advertisements
- Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above
- Appendix 5 – Minutes of any public and/or stakeholder meetings
- Appendix 6 - Comments and Responses Report
- Appendix 7 – Comments from I&APs on Basic Assessment (BA) Report
- Appendix 8 – Comments from I&APs on amendments to the BA Report
- Appendix 9 – Copy of the register of I&APs
- Appendix 10 – Comments from I&APs on the application
- Appendix 11 - Other

# SECTION D: RESOURCE USE AND PROCESS DETAILS

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

**Instructions for completion of Section D for alternatives**

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

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

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

## 1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

**Solid waste management**

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

YES	
-----	--

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

48 m <sup>3</sup>
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How will the construction solid waste be disposed of (describe)?

**The waste during the construction phase will be taken and collected from site by means of skip waste containers and be disposed at a registered waste site. This will be the responsibility of the contractor.**

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

**The construction solid waste will be disposed of at the registered Municipal landfill site, of the City of Johannesburg Metropolitan Municipality**

Will the activity produce solid waste during its operational phase? 

YES	
-----	--

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

5,76 m <sup>3</sup>
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How will the solid waste be disposed of (describe)?

**All solid waste generated by the proposed filling station during its operational phase will be collected by a registered waste management service provider and be deposited at a registered Municipal landfill site of the City of Johannesburg Metropolitan Municipality.**

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? 

NO	
----	--

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

**Solid waste generated by the proposed filling station during its operational phase will be collected by a registered waste management service provider and be deposited at a registered Municipal landfill site of the City of Johannesburg Metropolitan Municipality.**

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? 

	NO
--	----

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

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

	NO
--	----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

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

**Liquid effluent (other than domestic sewage)**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? 

	NO
--	----

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

m <sup>3</sup>
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If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? 

N/A
-----

Will the activity produce any effluent that will be treated and/or disposed of on site? 

	NO
--	----

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

m <sup>3</sup>
----------------

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

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

Will the activity produce effluent that will be treated and/or disposed of at another facility? 

	NO
--	----

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If yes, provide the particulars of the facility:

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

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

### Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

Will the activity produce any effluent that will be treated and/or disposed of on site?

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

<b>YES</b>	
Unknown m <sup>3</sup> (Minimal)	
	<b>NO</b>
	<b>NO</b>

### Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

	<b>NO</b>
	<b>NO</b>

## 2. WATER USE

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

Municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
<b>X</b>					

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?

If yes, list the permits required

	<b>NO</b>
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If yes, have you applied for the water use permit(s)?

If yes, have you received approval(s)? (attached in appropriate appendix)

<b>N/A</b>	
<b>N/A</b>	

## 3. POWER SUPPLY

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

Municipal

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

N/A

#### 4. ENERGY EFFICIENCY

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

The following recommendations regarding structural designs are suggested by the environmental consultants:

- Electricity Equipment and utilities will be used during the construction phase. The construction equipment will use only a limited fraction of the available electricity for the construction phase only.
- With regard to fuel and oil delivery vehicles and other construction equipment will use petrol, diesel and oil. Use and number of such vehicles and machinery will be restricted to that which is absolutely necessary for the construction activities.
- Use of building material that requires excessive amounts of energy to manufacture should be minimized;
- Use of building material originating from sensitive or scarce environmental resources should be minimized. E.g. Tropical hardwood should not be used;
- Building material should be legally obtained by the supplier, e.g. wood must have been legally harvested, and sand should be obtained only from legal borrow pits and from commercial sources;
- Building material that can be recycled / reused should be used rather than building material that cannot;
- Use highly durable building material for components of the building that is unlikely to be changed during the life of the building (Possible activities include e.g. renovation, current trends, changes in family life cycle) is highly recommended; and

Local building material instead of imported building material should be used as much as possible (this will reduce transportation impacts and enhance local job creation).

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

***Beside the use of energy saving lighting, there are no alternative sources of energy that have been considered for this project.***

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

- **Availability and management of sewerage facilities**
- **Socio-economical impact on competitor sites; and**
- **The need and desirability of the new site**

*All the issues and comments received have been captured in the Comments and Responses Report provided with **Appendix C: Public Participation***

Summary of response from the practitioner to the issues raised by the interested and affected parties

(A full response must be provided in the Comments and Response Report that must be attached to this report):

**All the issues and comments received have been captured in the Comments and Responses Report provided with Appendix C: Public Participation**

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

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

The potential impacts of the proposed construction were identified through a site visit, the Environmental Assessment Practitioners experience and expertise in the field, specialist studies and comments received during the public participation process.

In the Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts.

In general, it is recognized that every development has the potential to pose various risks to

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the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, and an environmental evaluation.

Previous experience has shown that it is often not feasible or practical to only identify and address possible impacts. The rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts.

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

The classes are rated as follows:

**1) No significance**

The impact is not substantial and does not require any mitigatory action.

**2) Low**

The impact is of little importance, but may require limited mitigation.

**3) Medium**

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

**4) High**

The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

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

**For the purposes of this BA, Envirolution identified one proposed alternative for the proposed construction of a BP filling station in Stretford. The alternative only differs from the preferred development in terms of the design layout as access and turning circles for the delivery vehicles and cars, and interaction with the adjacent shopping centre is limited. The impact assessment assesses these layouts (preferred alternative and Alternative 1) on the tables below as the impacts are similar in nature.**

### Proposal: Preferred Alternative

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p><b>Soil erosion:</b> Construction earthworks may cause soil erosion.</p>	<p><b>Medium to High</b></p>	<p>1. Construction activities should preferably take place during the dry winter months. 2. Stockpiles must be covered in excess windy conditions. 3. Dust suppression is necessary for stockpiles older than a month. 4. Stockpiles should not be higher than 2 m to avoid compaction. 5. Ensure that excavated and stockpiled material is stored and bermed on higher lying areas of the site and not in any areas where water would naturally accumulate. 6. Subsoil must be returned into the trench after all the construction.</p>	<p><b>Low</b></p>

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		7. Storm water Management Plan to be implemented.	
<b>Impacts on ground water:</b> Groundwater contamination due to construction earthworks.	<b>Medium</b>	<ol style="list-style-type: none"> <li>1. Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants.</li> <li>2. All cement mixing must occur on impervious surfaces and within controlled bermed areas.</li> <li>3. Oil residue must be treated with oil absorbent such as Drizit or similar and this material removed to a licensed waste disposal site.</li> <li>4. Contractor/s must provide regularly serviced portable chemical toilets for construction workers at a distance no more than 200 m from the place of construction.</li> <li>5. No materials may be discharged from the construction camps.</li> <li>6. Storm water Management Plan to be implemented.</li> </ol>	<b>Low</b>
<b>Impacts on ground water:</b> Ground water contamination due to fuel leaks	<b>Medium</b>	<p>To inhibit such conditions, precautionary measures should be put in place and will entail:</p> <ol style="list-style-type: none"> <li>1. Installation of new tanks with protection against corrosion and leaks.</li> <li>2. Installation of anchors to guard against tank floatation by a high groundwater table. This entails installing anchors to hold down the tank through the weight of the concrete slab cast underneath it.</li> <li>3. Installation of a groundwater monitoring well, in-tank monitors and also soil gas monitors.</li> </ol> <p>See Appendix D2: Geotechnical Assessment.</p>	<b>Low</b>
<b>Impact on dust:</b> The influx of pollutants will occur due to the establishment of the construction camp and the movement of people and vehicles on site. Excavated and stockpiled material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air.	<b>Medium to Low</b>	<ol style="list-style-type: none"> <li>1. Continuous watering of the site should be carried out to prevent dust pollution during windy and dry conditions.</li> <li>2. A continuous dust monitoring process needs to be undertaken during construction.</li> <li>3. Speed restriction of 20km/h must be implemented for all construction vehicles.</li> <li>4. All vehicles transporting friable materials such as sand, rubble etc must be covered by a tarpaulin or wet down.</li> </ol>	<b>Low</b>
<b>Impact on air quality:</b> Sources of ambient benzene concentrations such as vehicle exhaust emissions, evaporative losses from vehicles and evaporative losses during handling, distribution and storage of	<b>Medium</b>	<b>Operational Phase:</b> It is recommended that every effort be made to reduce the emission of volatile organic compounds from the proposed filling station site as far as reasonably practicable.	<b>Low</b>

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<p>petrol could impact on the air quality as a result of the proposed filling station.</p>		<p>From a human health perspective, emissions of Benzene (a confirmed carcinogenic compound) from filling station sites must be prevented / reduced as far as possible in order to ensure that the associated cancer risk to adjacent residents is minimised. See Appendix D1: Air Quality Report.</p>	
<p><b>Traffic:</b> Increase of construction vehicles in the area during the construction phase and increase of vehicular movement in the operational phase.</p>	<p><b>Medium</b></p>	<p>1. Construction vehicle movement to and from site must be outside peak hour traffic (07:00am - 09:00am, &amp; 16:00pm – 18:00pm.) 2. Construction activities must not interfere with the flow of traffic or cause blockages. 3. Should road or lane closures be required, prior notice must be given and permission requested from the responsible bodies (Authorities and landowners). 4. Construction vehicle must keep to a low speed limit 5.Restricting any road/track upgrades to existing infrastructure 6. Ensuring that all vehicles are fitted with silencers that are properly maintained <b>Operational phase:</b> 1. Roads should be adequately maintained. 2. Adequate signage should be provided and adhered to.</p>	<p><b>Low</b></p>
<p><b>Traffic:</b> Operational phase</p>	<p><b>Medium</b></p>	<p>A new filling station has an impact on adjacent or nearby filling stations that serve the same traffic stream. Most modern urban/suburban filling stations attract between 1% and 8% of the passing traffic stream. For sites in the same context as the study site the interception rate is higher (e.g. 12 – 14%). The remaining traffic (between 92% and 99%) must fill up somewhere else along their route, outside the critical area of influence. This area of influence, defined by a 3km radius, can be made more specific by investigating the traffic streams that are served. Please see Appendix D3 for the findings of the Traffic Study Report.</p>	<p><b>Low</b></p>
<p><b>Impact on competitor sites:</b> impact on existing fuel stations within a 3 km radius.</p>	<p><b>High</b></p>	<p>Although short term losses are expected to occur within the first few months of the development, the competitor sites will eventually get accustomed to the proposed development. The impact on any of the existing sites will not be</p>	<p><b>Medium</b></p>



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		enough to impact on the feasibility of all of the individual sites surveyed (Refer to Appendix D3: Traffic Impact Assessment Report).	
<b>Impacts on storm water:</b> The accumulation of storm water.	<b>Medium</b>	<ol style="list-style-type: none"> <li>1. No stockpiles or construction materials may be stored or placed within any drainage line that may be in close proximity of storm water drains.</li> <li>2. No stockpiles or construction materials may be stored or placed in close proximity to storm water drains.</li> <li>3. Storm water Management Plan to be implemented.</li> </ol>	<b>Low</b>
<b>Impact on visual and aesthetic quality:</b> Stockpiled materials; workforce; and construction sites.	<b>Medium</b>	<ol style="list-style-type: none"> <li>1. Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period. All waste/litter/rubbish etc must be disposed of at an approved dumping site as approved by the Council.</li> <li>2. No wastes may remain on the construction site for more than two weeks.</li> <li>3. Supply sufficient garbage bins throughout the site and empty regularly.</li> <li>4. Ensure good house-keeping is implemented at all times.</li> <li>5. Keep the property neat and litter free at all times and maintain the landscaped areas.</li> <li>6. The buildings that are to be erected should be aesthetically pleasing and blend into the area as far as possible</li> <li>7. Indigenous vegetation should be used to create habitats that attract the natural fauna in the area as far as possible</li> <li>8. Advertising on the site must be in accordance with South African Manual for Outdoor Advertising Control (SAMOAC).</li> <li>9. The Construction camp must be contained to prevent any visual intrusion and be kept in a clean and orderly state at all times.</li> <li>10. Be sensitive towards the use of glass and metal in building designs as to avoid glare from the shiny surfaces to disturb adjacent</li> </ol>	<b>Low</b>

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		<p>residents.</p> <p>11. When vertical structures or surfaces are lit such as building facades or signs, direct the light downwards.</p> <p>12. Landscaping should be maintained.</p> <p><b>Operational Phase:</b></p> <p>1. The proposed filling station will be associated with the shopping centre and will fit in with growing infrastructure in the area.</p>	
<p><b>Impact on residents and community:</b> Impact on nearby residential areas.</p>	<p><b>Medium to Low</b></p>	<p>1. All adjacent landowners must be informed of the construction processes prior to commencement of construction activities.</p> <p>2. Adjacent land owners must be informed timeously of any service stoppages in their areas.</p> <p>3. Notification must include possible timeframes for stoppages.</p> <p>4. Consequences of such stoppages must be clearly indicated to all surrounding/affected land owners.</p> <p>5. Affected land owners must be timeously informed of any/all maintenance of the bulk water services supply which may result in service stoppages to their properties. Again this must include possible timeframes so alternatives can be provided.</p>	<p><b>Low</b></p>
<p><b>Safety and Security:</b> Workforce and construction sites.</p>	<p><b>Medium</b></p>	<p>1. Ensure all construction vehicles and machinery is under the control of competent personnel.</p> <p>2. Limit access to the construction site to the workforce only. Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).</p>	<p><b>Low</b></p>
<p><b>Geotechnical suitability:</b> indication of the site-specific geology to address any potential impact that might occur.</p>	<p><b>Medium</b></p>	<p>1. Build all structures and foundations according to recommendations by the qualified geo-technical engineer, See Appendix D2 for the Geotechnical Assessment.</p> <p>2. All materials used for fill and layerworks should be tested by an approved laboratory to ensure compliance with the specifications.</p> <p>3. Ensure that the foundations are placed on material of uniform consistency.</p> <p>4. All foundation excavations should be inspected by an experienced engineer prior to pouring of concrete.</p> <p>5. Ensuring that stockpiles are well</p>	<p><b>Low</b></p>

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		managed to minimise erosion thereof.	
<b>The following impacts are positive:</b>			
<b>Impact on infrastructure services:</b> The status of the infrastructure services will be impacted on through the proposed development.	<b>Medium</b>	There are no mitigation measures as the impact is positive.  1. The filling station will be a facility that serves the community by assisting with the need for fuel, a car wash and the shop at the filling station will also serve as a convenience store for small everyday household items.	<b>High</b>
<b>Impact on Safety and Security:</b>	<b>Medium</b>	<b>Operational Phase:</b> 1. The proposed filling station will increase mobility and visibility in the area as it will be operational 24 hours a day and will be well-illuminated.	<b>High</b>
<b>Impact on socio-economics:</b> Economic and employment status will be impacted on due to building construction, paving construction and landscaping during the construction phase and employment during the operational phase.	<b>Medium</b>	There are no mitigation measures as the impact is positive.  1. The construction phase will provide direct temporary employment for locals, and indirect employment through demand for construction materials, and support services, as well as empowerment and skills transfer opportunities. 2. During operation, there will be employment opportunities and continued potential for skills transfer.	<b>High</b>

**Alternative 1**

<b>Potential impacts:</b>	<b>Significance rating of impacts:</b>	<b>Proposed mitigation:</b>	<b>Significance rating of impacts after mitigation:</b>
<b>Soil erosion:</b> Construction earthworks may cause soil erosion.	<b>Medium to High</b>	1. Construction activities should preferably take place during the dry winter months. 2. Stockpiles must be covered in excess windy conditions. 3. Dust suppression is necessary for stockpiles older than a month. 4. Stockpiles should not be higher than 2 m to avoid compaction. 5. Ensure that excavated and stockpiled material is stored and bermed on higher lying areas of the site and not in any areas where water would naturally accumulate. 6. Subsoil must be returned into the trench after all the construction. 7. Storm water Management Plan to be implemented.	<b>Low</b>

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<p><b>Impacts on ground water:</b> Groundwater contamination due to construction earthworks.</p>	<p><b>Medium</b></p>	<ol style="list-style-type: none"> <li>1. Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants.</li> <li>2. All cement mixing must occur on impervious surfaces and within controlled bermed areas.</li> <li>3. Oil residue must be treated with oil absorbent such as Drizit or similar and this material removed to a licensed waste disposal site.</li> <li>4. Contractor/s must provide regularly serviced portable chemical toilets for construction workers at a distance no more than 200 m from the place of construction.</li> <li>5. No materials may be discharged from the construction camps.</li> <li>6. Storm water Management Plan to be implemented.</li> </ol>	<p><b>Low</b></p>
<p><b>Impacts on ground water:</b> Ground water contamination due to fuel leaks</p>	<p><b>Medium</b></p>	<p>To inhibit such conditions, precautionary measures should be put in place and will entail:</p> <ol style="list-style-type: none"> <li>1. Installation of new tanks with protection against corrosion and leaks.</li> <li>2. Installation of anchors to guard against tank floatation by a high groundwater table. This entails installing anchors to hold down the tank through the weight of the concrete slab cast underneath it.</li> <li>3. Installation of a groundwater monitoring well, in-tank monitors and also soil gas monitors.</li> </ol> <p>See Appendix D2: Geotechnical Assessment.</p>	<p><b>Low</b></p>
<p><b>Impact on dust:</b> The influx of pollutants will occur due to the establishment of the construction camp and the movement of people and vehicles on site. Excavated and stockpiled material that is vulnerable to wind has the potential to contribute to the influx of pollutants in the air.</p>	<p><b>Medium to Low</b></p>	<ol style="list-style-type: none"> <li>1. Continuous watering of the site should be carried out to prevent dust pollution during windy and dry conditions.</li> <li>2. A continuous dust monitoring process needs to be undertaken during construction.</li> <li>3. Speed restriction of 20km/h must be implemented for all construction vehicles.</li> <li>4. All vehicles transporting friable materials such as sand, rubble etc must be covered by a tarpaulin or wet down.</li> </ol>	<p><b>Low</b></p>
<p><b>Impact on air quality:</b> Sources of ambient benzene concentrations such as vehicle exhaust emissions, evaporative losses from vehicles and evaporative losses during handling, distribution and storage of petrol could impact on the air quality as</p>	<p><b>Medium</b></p>	<p><b>Operational Phase:</b> It is recommended that every effort be made to reduce the emission of volatile organic compounds from the proposed filling station site as far as reasonably practicable. From a human health perspective,</p>	<p><b>Low</b></p>

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a result of the proposed filling station.		emissions of Benzene (a confirmed carcinogenic compound) from filling station sites must be prevented / reduced as far as possible in order to ensure that the associated cancer risk to adjacent residents is minimised. See Appendix D1: Air Quality Report.	
<p><b>Traffic:</b> Increase of construction vehicles in the area during the construction phase and increase of vehicular movement in the operational phase.</p>	<b>High</b>	<p>1. Construction vehicle movement to and from site must be outside peak hour traffic (07:00am - 09:00am, &amp; 16:00pm – 18:00pm.) 2. Construction activities must not interfere with the flow of traffic or cause blockages. 3. Should road or lane closures be required, prior notice must be given and permission requested from the responsible bodies (Authorities and landowners).</p> <p><b>Operational phase:</b> 1. Roads should be adequately maintained. 2. Adequate signage should be provided and adhered to.</p>	<b>Medium</b>
<p><b>Traffic:</b> Operational Phase</p>	<b>High</b>	<p>A new filling station has an impact on adjacent or nearby filling stations that serve the same traffic stream. Most modern urban/suburban filling stations attract between 1% and 8% of the passing traffic stream. For sites in the same context as the study site the interception rate is higher (e.g. 12 – 14%). The remaining traffic (between 92% and 99%) must fill up somewhere else along their route, outside the critical area of influence. This area of influence, defined by a 3km radius, can be made more specific by investigating the traffic streams that are served. Please see Appendix D3 for the findings of the Traffic Study Report.</p>	<b>Medium</b>
<p><b>Impact on competitor sites:</b> impact on existing fuel stations within a 3 km radius.</p>	<b>High</b>	<p>Although short term losses are expected to occur within the first few months of the development, the competitor sites will eventually get accustomed to the proposed development. The impact on any of the existing sites will not be enough to impact on the feasibility of all of the individual sites surveyed (Refer to Appendix D3: Traffic Impact Assessment Report).</p>	<b>Medium</b>

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<p><b>Impacts on stormwater:</b> The accumulation of stormwater.</p>	<p><b>Medium</b></p>	<ol style="list-style-type: none"> <li>1. No stockpiles or construction materials may be stored or placed within any drainage line that may be in close proximity of storm water drains.</li> <li>2. No stockpiles or construction materials may be stored or placed in close proximity to storm water drains.</li> <li>3. Storm water Management Plan to be implemented.</li> </ol>	<p><b>Low</b></p>
<p><b>Impact on visual and aesthetic quality:</b> Stockpiled materials; workforce; and construction sites.</p>	<p><b>Medium</b></p>	<ol style="list-style-type: none"> <li>1. Ensure that no litter, refuse, waste, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent or surrounding properties including road verges, roads or public places and open spaces during or after the construction period. All waste/litter/rubbish etc must be disposed of at an approved dumping site as approved by the Council.</li> <li>2. No wastes may remain on the construction site for more than two weeks.</li> <li>3. Supply sufficient garbage bins throughout the site and empty regularly.</li> <li>4. Ensure good house-keeping is implemented at all times.</li> <li>5. Keep the property neat and litter free at all times and maintain the landscaped areas.</li> <li>6. The buildings that are to be erected should be aesthetically pleasing and blend into the area as far as possible</li> <li>7. Indigenous vegetation should be used to create habitats that attract the natural fauna in the area as far as possible</li> <li>8. Advertising on the site must be in accordance with South African Manual for Outdoor Advertising Control (SAMOAC).</li> <li>9. The Construction camp must be contained to prevent any visual intrusion and be kept in a clean and orderly state at all times.</li> <li>10. Be sensitive towards the use of glass and metal in building designs as to avoid glare from the shiny surfaces to disturb adjacent residents.</li> <li>11. When vertical structures or surfaces are lit such as building facades or signs, direct the light downwards.</li> <li>12. Landscaping should be</li> </ol>	<p><b>Low</b></p>

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		<p>maintained.</p> <p><b>Operational Phase:</b></p> <p>2. The proposed filling station will be associated with the shopping centre and will fit in with growing infrastructure in the area.</p>	
<p><b>Impact on residents and community:</b> Impact on nearby residential areas.</p>	<p><b>Medium to Low</b></p>	<p>1. All adjacent landowners must be informed of the construction processes prior to commencement of construction activities.</p> <p>2. Adjacent land owners must be informed timeously of any service stoppages in their areas.</p> <p>3. Notification must include possible timeframes for stoppages.</p> <p>4. Consequences of such stoppages must be clearly indicated to all surrounding/affected land owners.</p> <p>5. Affected land owners must be timeously informed of any/all maintenance of the bulk water services supply which may result in service stoppages to their properties. Again this must include possible timeframes so alternatives can be provided.</p>	<p><b>Low</b></p>
<p><b>Safety and Security:</b> Workforce and construction sites.</p>	<p><b>Medium</b></p>	<p>1. Ensure all construction vehicles and machinery is under the control of competent personnel.</p> <p>2. Limit access to the construction site to the workforce only. Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).</p> <p><b>Operational Phase:</b></p> <p>2. The proposed filling station will increase mobility and visibility in the area as it will be operational 24 hours a day and will be well-illuminated.</p>	<p><b>Low</b></p>
<p><b>Geotechnical suitability:</b> indication of the site-specific geology to address any potential impact that might occur.</p>	<p><b>Medium</b></p>	<p>1. Build all structures and foundations according to recommendations by the qualified geo-technical engineer, See Appendix D2 for the Geotechnical Assessment.</p> <p>2. All materials used for fill and layerworks should be tested by an approved laboratory to ensure compliance with the specifications.</p> <p>3. Ensure that the foundations are placed on material of uniform consistency.</p> <p>4. All foundation excavations should be inspected by an experienced engineer prior to pouring of concrete.</p>	<p><b>Low</b></p>

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		5. Ensuring that stockpiles are well managed to minimise erosion thereof.	
<b>The following impacts are positive:</b>			
<b>Impact on infrastructure services:</b> The status of the infrastructure services will be impacted on through the proposed development.	<b>Medium</b>	There are no mitigation measures as the impact is positive.  1. The filling station will be a facility that serves the community by assisting with the need for fuel, a car wash and the shop at the filling station will also serve as a convenience store for small everyday household items.	<b>High</b>
<b>Impact on Safety and Security:</b>	<b>Medium</b>	<b>Operational Phase:</b> 1. The proposed filling station will increase mobility and visibility in the area as it will be operational 24 hours a day and will be well-illuminated.	<b>High</b>
<b>Impact on socio-economics:</b> Economic and employment status will be impacted on due to building construction, paving construction and landscaping during the construction phase and employment during the operational phase.	<b>Medium</b>	There are no mitigation measures as the impact is positive.  1. The construction phase will provide direct temporary employment for locals, and indirect employment through demand for construction materials, and support services, as well as empowerment and skills transfer opportunities. 2. During operation, there will be employment opportunities and continued potential for skills transfer.	<b>High</b>
<p><b>The following impacts and mitigation measures for the construction phase and the operational phase are envisaged to be the same for both the Proposal (Preferred Alternative) and Alternative 1:</b></p> <ul style="list-style-type: none"> <li>• Soil erosion,</li> <li>• Impacts on groundwater;</li> <li>• Impacts on dust and air quality,</li> <li>• Impacts on storm water,</li> <li>• Impact on Visual and Aesthetic quality,</li> <li>• Impacts in competitor sites,</li> <li>• Impact on residents and community,</li> <li>• Safety and Security,</li> <li>• Geotechnical suitability,</li> <li>• Impacts on infrastructure services; and</li> <li>• Impacts on socio-economics.</li> </ul> <p>However in Alternative 1 the following impacts have more of a bearing on the environment:</p> <ul style="list-style-type: none"> <li>• Traffic</li> </ul> <p>The impacts are likely too similar but will differ in terms of the design layout as access and turning circles for the delivery vehicles and cars, and interaction with the adjacent shopping centre is limited in Alternative 1. In the Preferred Alternative the tank farm is positioned further away from the residential area and in Alternative 1 the tank farm is positioned at the south-west corner of the site.</p> <p>It is for this reason that the Proposal (Preferred Alternative) is preferred as it is more environmentally viable.</p>			



## BASIC ASSESSMENT REPORT [REGULATION 22(1)]

### Alternative 2

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:

See impact assessment table above.

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

**Air Quality Study – Appendix D1**  
**Geotechnical Report – Appendix D2**  
**Traffic Study Report – Appendix D3**

### 3. 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 for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

#### Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p><b>There will be no decommissioning or closure envisaged as this is an infrastructure that could be upgraded.</b></p> <p><b>There is a need and demand for a filling station within close proximity to the new shopping centre in Stretford.</b></p>			

### 4. CUMULATIVE IMPACTS

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

Cumulative impacts can result from actions which may not be significant on their own but which are significant when added to the impact of other similar actions. The anticipated cumulative impacts of the proposed development includes the following:

- Increased air pollution
- Impacts on groundwater;
- Impacts on storm water;
- Visual impacts;
- Traffic impacts (noise and dust);
- Safety and Security;

Positive cumulative impacts that will result from the proposed development include:

- Increased socio-economic upliftment as a result of the employment opportunity that is presented by the filling station.

### 5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Proposal**

This report is intended to offer an objective assessment of the potential environmental impacts and issues / concerns raised during the environmental basic assessment process. The Impact Assessment section of this report indicates that the most significant environmental impacts associated with the proposed development can be effectively mitigated to have a low significance impact rating.

It is the opinion of Envirolution Consulting (Pty) Ltd that the proposed construction of a filling station will not have a significant negative environmental impact and is therefore preferred.

Responsible environmental management will be required on site, during the planning and construction phases of the development. These management measures should be guided by the Environmental Management Plan.

**THE REHABILITATION PLAN**

Rehabilitation Goal

It is suggested that the goal of the rehabilitation exercise should be to improve vegetation cover, limit erosion and improve the aesthetic appeal of the site.

**6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE**

**For proposal (preferred alternative and alternative 1)**

BP Southern Africa (Pty) Ltd proposes to construct a filling station located on Erf 15673 in Stretford, Orange Farm, Johannesburg, Gauteng. The proposed filling station will also include a convenience store.

The site is located within a well lit-up residential area. The development of filling stations and associated infrastructure is important to sustain the present and future development of the area. It is anticipated that the proposed filling station will improve the character of the area and will increase the market value of surrounding properties.

The impacts and mitigation measures for the construction phase and the operational phase are envisaged to be the same for both the Proposal and Alternative 1, the impacts will be higher on Alternative 1 as access and turning circles for the delivery vehicles and cars, and interaction with the adjacent shopping centre is limited.

The following impacts and mitigation measures for the construction phase and the operational phase are envisaged to be the same for both the Proposal and Alternative 1:

- Soil erosion,
- Impacts on groundwater;
- Impacts on storm water,
- Impacts on dust and air quality,
- Impact on residents and community,
- Safety and Security,
- Geotechnical Suitability,
- Impacts on infrastructure services; and
- Impacts on socio-economics.

However in Alternative 1 the following impact has more of a bearing on the environment:

- Traffic

It is for this reason that the Proposal (Proposed Development) is preferred as it is more environmentally viable.

The implementation of the preferred proposal (proposed development) will improve the character of the area and will increase the market value of surrounding properties. The proposed development will also uplift the socio-economic status of the local area.

**BASIC ASSESSMENT REPORT [REGULATION 22(1)]**

The proposed development has overall significantly low impacts on the environment.

For alternative:

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

*It must be noted that the impacts that may arise from the proposed development (preferred) and Alternative 1 are not significantly different from one another. The impacts are likely too similar but will differ in terms of the design layout as access and turning circles for the delivery vehicles and cars, and interaction with the adjacent shopping centre is limited. It must however be noted that the application of mitigation measures will significantly reduce the impacts from medium to low significance.*

*It is the opinion of Envirolution Consulting (Pty) Ltd that the preferred alternative (Proposed Development) be authorized based on this impact assessment.*

**7. RECOMMENDATION OF PRACTITIONER**

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner).

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

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

**Envirolution Consulting (Pty) Ltd recommends that the EMPr for this application be made a binding document for the contractors and managers on site. An independent auditor should be appointed(i.e. the Environmental Compliance Officer (ECO) to undertake a construction and post-construction environmental audit (i.e. against the EMPr). The lead Contractor should designate a trained worker(s) to ensure that the EMPr is implemented correctly.**

**8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)**

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

EMPr attached (See Appendix E)

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## SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

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

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C:

- C1 - Proof of site notice
- C2 - Written notices issued to I&APs
- C3 - Proof of newspaper advertisements
- C4 - Communications to and from I&APs
- C5 - Minutes of any public and/or stakeholder meetings – **N/A**
- C6 - Comments and Responses Report
- C7 - Comments from I&APs on Basic Assessment (BA) Report –**N/A**
- C8 - Comments from I&APs on amendments to the BA Report – **N/A**
- C9 - Copy of the register of I&APs
- C10-Comments from I&APs on the application – **N/A**
- C11-Other – **N/A**

Appendix D: Specialist reports

- D1: Air Quality Report
- D2: Geotechnical Report
- D3: Traffic Study Report

Appendix E: EMPr

## CHECKLIST

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

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