



GAUTENG PROVINCE

AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1/2022)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This template is current as of April 2022. It is the responsibility of the EAP to ascertain whether subsequent versions of the template have been published or produced by the competent authority.
3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.
4. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**
7. 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.
8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
9. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.
10. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorization or Waste Management License being refused.
11. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.
12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.
13. 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.
14. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

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

Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 3051/3052
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:

File Reference Number:

Application Number:

Date Received:

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

--

Is a closure plan applicable for this application and has it been included in this report?

--

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

--

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

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

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If no, state reasons for not attaching the list.

--

Have State Departments including the competent authority commented?

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If no, why?

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SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Expansion to 130m³ Liquid Petroleum Gas (LPG) Storage Tanks on Erf 179 Apex X3, 18 Apex Road West, Benoni, City of Ekurhuleni, Gauteng Province

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?

YES	NO
	X

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

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

YES	NO
YES	NO

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

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:

Administering authority:

Promulgation Date:

National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	27 November 1998
National Environmental Management: Waste Act, 2008 (Act No.59 of 2008)	National & Provincial	10 March 2009
National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004)	National & Provincial	7 June 2004
National Heritage Resource Act No. 25 of 1999	South African Heritage Resource Agency	28 April 1999
The Occupational Health and Safety Act no.85 of 1993	Department of Health	23 June 1993

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

Legislation, policy or guideline	Description of compliance
GNR 983 as amended / updated in GNR 327 NEMA EIA Regulations	The current 50m ³ LPG tank is below the threshold and therefore authorisation was not previously required or obtained. However, with the increase in capacity by another 80m ³ (the expansion of 80m ³ does not trigger a listed activity as only expansions above 80m ³ triggers a listed activity), the total volume of 130m ³ (65m ³ + 65m ³) will exceed the threshold of 80m ³ .
National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004)	The project area is located within a terrestrially vulnerable ecosystem according to the DFFE screening tool but this is clearly incorrect as the site has been transformed many years before and the site is void of vegetation.
GNR 926 of 29 November 2013. National Norms and Standards for the Storage of Waste	The storage of waste material on the site before off-site recycling and disposal has to comply with these Norms and Standards.

3. ALTERNATIVES

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

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

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

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

As this is the expansion of an existing operational facility on a property already developed and forming part of the larger Shield Chemicals site, alternatives were not considered.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")	Description
1	Proposal	The existing site with 50m3 LPG storage (see above) will be expanded to include another 80m3 LPG storage, therefore capacity will increase to 130m3.
2	Alternative 1	Not applicable
3	Alternative 2	Not applicable
	Etc.	

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

<p>Alternative property An alternative property was not considered as this is the expansion of an existing operational facility on a property already developed and forming part of the larger Shield Chemicals site.</p> <p>Alternative location on property Placing the new 2 X 65m3 above-ground vertical tanks on the same footprint as the current 55m3 horizontal LPG tank is the best option since no disturbance of any other existing structures is required.</p> <p>Alternative use An alternative use for the property was not considered as this is the expansion of an existing operational LPG facility.</p> <p>No-go alternative The no-go alternative will imply that the project is not approved and the expansion will therefore not go ahead as planned. This will not meet the need for Shield Chemicals (Pty) Ltd planned expansion of its operations which is required.</p>

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 (**Total environmental (landscaping, parking, etc.) and the building footprint**)

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the activity:

72m²

Ha/ m²

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Length of the activity:

m/km

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

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the site/servitude:

±0.3ha

Ha/m²

5. SITE ACCESS

Proposal

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

YES X NO

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

m

Describe the type of access road planned:

Existing access from Apex Road West

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

Alternative 1

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

YES NO

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

m

Describe the type of access road planned:

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

Alternative 2

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

YES NO

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

m

Describe the type of access road planned:

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

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

Section A 6-8 has been duplicated

0

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

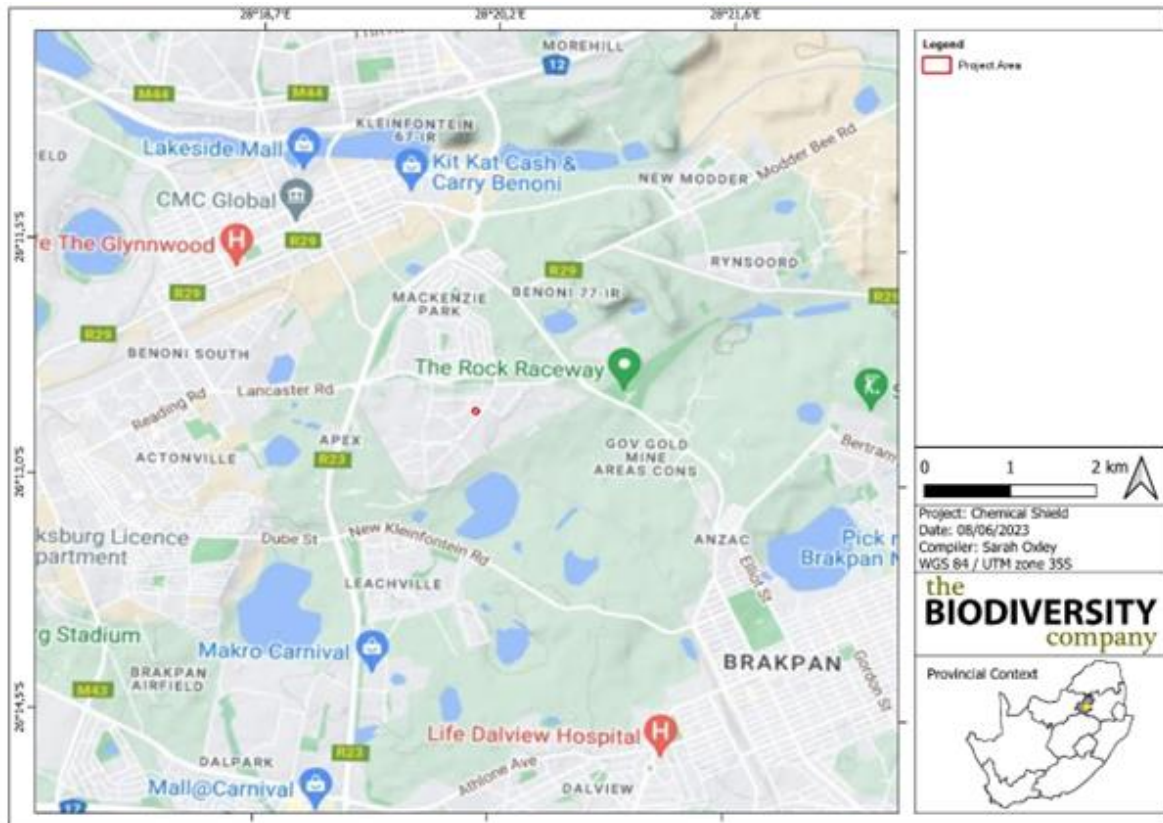
A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
 - A4 size for activities with development footprint of 10sqm to 5 hectares;
 - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
 - A2 size for activities with development footprint of >20 hectares to 50 hectares;
 - A1 size for activities with development footprint of >50 hectares;
- The following should serve as a guide for scale issues on the layout plan:
 - A0 = 1: 500
 - A1 = 1: 1000
 - A2 = 1: 2000
 - A3 = 1: 4000
 - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

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

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;

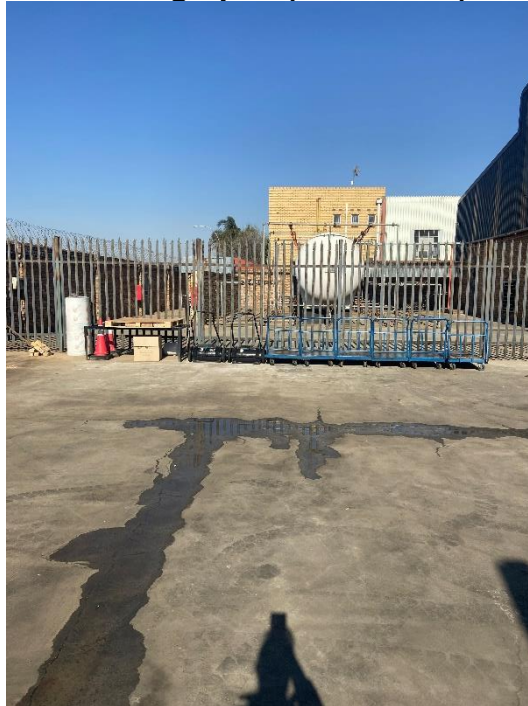
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.



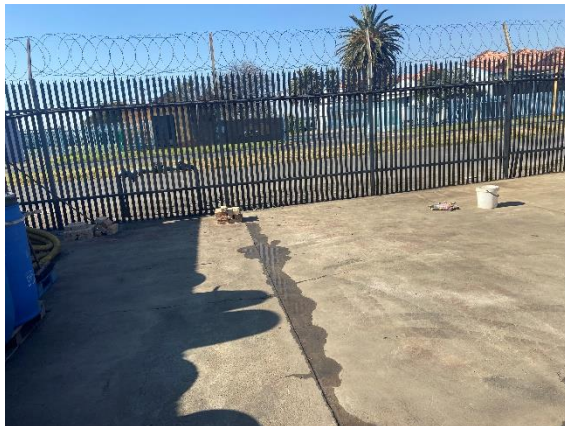
7. SITE PHOTOGRAPHS

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

Erf 179 – LPG expansion Photographs (2023-06-19)



Existing above-ground horizontal 50m³ LPG tank; footprint area where 2 new 65m³ vertical tanks will be established

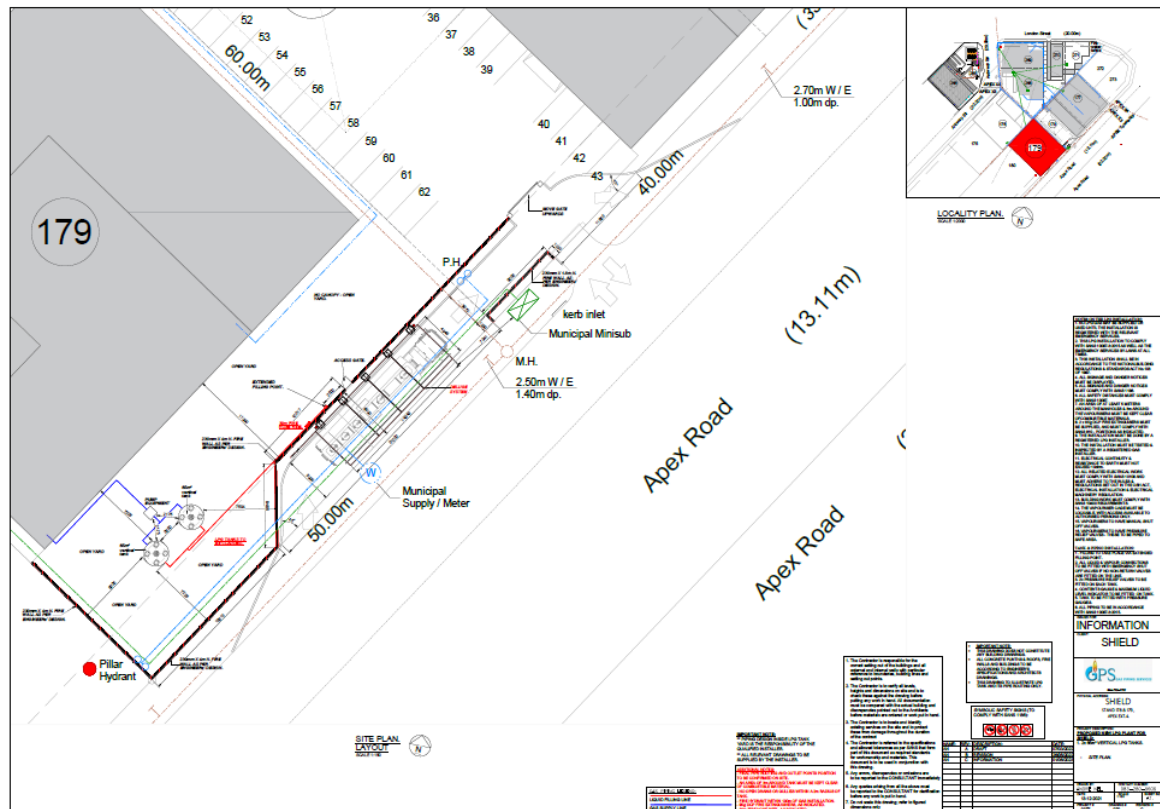


View from site towards Apex Road



Existing tank and buildings on site

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



SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route 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 times (complete only when appropriate)

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

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

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

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

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

1. PROPERTY DESCRIPTION

Property description:
(Including Physical Address and Farm name, portion etc.)

Erf 179, Apex X3
Address: 18 Apex Road West, Benoni

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: Proposal

Latitude (S):	Longitude (E):
26 ° 12' 35.96"	28° 20' 03.21"

In the case of linear activities:
Alternative:

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

Latitude (S):	Longitude (E):
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

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

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	O	I	R	0	0	1	0	0	0	0	0	1	7	9	0	0	0	0	0	0
ALT. 1																					
ALT. 2																					
etc.																					

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat X	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain X	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

Shallow water table (less than 1.5m deep)

Dolomite, sinkhole or doline areas

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

YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X

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

b) are any caves located on the site(s)

YES	NO X
-----	------

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

Latitude (S):	Longitude (E):

c) are any caves located within a 300m radius of the site(s)

YES	NO X
-----	------

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

Latitude (S):	Longitude (E):

d) are any sinkholes located within a 300m radius of the site(s)

YES	NO X
-----	------

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

Latitude (S):	Longitude (E):

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

YES	NO X
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Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

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

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

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 0	Natural veld with heavy alien infestation % = 0	Veld dominated by alien species % = 0	Landscaped (vegetation) % = 0
Sport field % = 0	Cultivated land % = 0	Paved surface (hard landscaping) % = 100	Building or other structure %	Bare soil % = 0

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

YES

NO X

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.

YES

NO X

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site?

YES

NO X

If YES, specify and explain:

Was a specialist consulted to assist with completing this section

YES X

NO

If yes complete specialist details

Name of the specialist:

The Biodiversity Company

Qualification(s) of the specialist:

The Biodiversity Company and its associates operate as independent consultants under the auspice of the South African Council for Natural Scientific Professions

Postal address:

Postal code:

Telephone:

E-mail:

info@thebiodiversitycompany.com

Cell:

Fax:

Are any further specialist studies recommended by the specialist?

YES

NO X

If YES, specify:

If YES, is such a report(s) attached?

YES

NO

If YES list the specialist reports attached below

Signature of specialist: _____ Date: _____

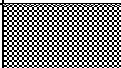
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	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 X	15. Light industrial X
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
35. Other land uses (describe): X	Road			

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

NORTH				
14, 15	14, 15	14, 15	14, 15	14, 15
14, 15	14, 15	15	14, 15	14, 15
14, 15	14,15		14,15	14, 15
14, 15	14, 15	35	14, 15	14, 15
14, 15	14, 15	14, 15	14, 15	14, 15
SOUTH				

WEST

EAST

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	NO X
-----	------

Not applicable

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.

Province:	Gauteng
Municipality:	City of Ekurhuleni (CoE)
Region:	D
Roads:	<p>Region D is predominantly bound by the N12 to the north and the N17 to the south. Both these national roads are major east-west links, with the N12 / North Rand Road linking the CoE to the City of Johannesburg (CoJ) to the west and to Middelburg in the east. The N17 also links the CoE to CoJ to the west and Leandra to the east. The major north-south links in Region D is Barry Marais Road, which forms the western boundary of Region D and links to the N3 in the south and Kempton Park in the north. The eastern boundary of Region D is broadly Welgedacht Towns.</p> <p>The R29 connects Johannesburg with Leandra and Kinross via Germiston, Boksburg, Benoni and Springs. The R23 links Benoni with Volksrust via Brakpan, Heidelberg and Standerton.</p> <p><i>The project area is located close to the R23 to the west and R29 (Main Reef Road) to the North.</i></p>
Population:	<p>CoE's population has grown exponentially from an estimated 2 481 752 in 2001 to 3 379 104 in 2016. According to Statistics SA, the current population represents over 6% of the total population of South Africa. The growth rate has been declining from 2,8% in 2011 to the current 2,1%. It is projected that the population of the CoE will grow at a slower rate at less than 2% resulting in an expected over 4 million residents by 2030 and 8.8 million residents by 2050.</p> <p>The population of Region D was 233 000 people in 2012.</p> <p><u>Households:</u> The CoE has 1 299 490 households which is 284 025 more households since 2011. Region D has 71 700 households. According to the household survey conducted in 2016, 18.7% of these households live in informal dwellings. The households in Ekurhuleni constitute about a quarter of the households in Gauteng and about 10% of the households in South Africa.</p> <p><u>Urbanisation:</u> Typical urban challenges such as rapid urbanisation and the influx of people seeking job opportunities form part of the vast challenges that the City experiences.</p>

	<u>Relocation</u> : A key aspect of growth in the Ekurhuleni population is the net migration into the City. Ekurhuleni, with Tshwane and Johannesburg, are the largest recipients of in-migration in the country.
Demographics:	<p><u>Age</u>: Approximately 66% of the population is of a working age and 53% of the CoE population are between the ages of 20 and 49. The median age (30 years) of the City is slightly higher than that of Gauteng (29 years) and 20% higher than that of South Africa (25 years). Around 66% of the population is between the ages of 18 and 64, 18% is below the age of 18 and 6% is above the age of 65. The City has a relatively young population, which is about the same as that of Gauteng.</p> <p><u>Gender</u>: Males make up 51% of the population within the City and females account for 49%, except in Kempton Park, Alberton and Edenvale where women constitute between 51 and 53%.</p>
Education:	Education has improved significantly, especially in terms of people with a secondary school education (including matric) and post-matric qualifications.
Employment:	Skilled and semi-skilled employment has grown by 2.7% and 1.4%, respectively, while low skilled labour has grown very slowly at 2% per annum. Informal employment has grown at an average of 7.7% per annum. Approximately 26% of the labour force is considered skilled, while 47% is semi-skilled and 27% is low skilled.
Unemployment:	Unemployment remains a significant challenge, with CoE's rate of unemployment exceeding the provincial average by more than 1%, at 30.1%. The municipality has consistently had higher unemployment rates than the provincial and national levels between 2015 and 2019.
Economic structure:	<p>The CoE is regarded a major economic and social role-player in South Africa due to its strong industrial characteristics as well its contribution to the national economy.</p> <p>The CoE economy is dominated by the following four sectors: manufacturing, finance and business services, community services and general government and to a lesser extent the trade and hospitality sector.</p> <p>The industrial areas of Spartan, Isando, Jet Park, Olifantsfontein, Wadeville, Alrode and Dunswart, house the bulk of the manufacturing and transport industries in Ekurhuleni. The CBDs of Kempton Park, Boksburg, Benoni and Germiston, contain the bulk of the finance and local retail sector; and the retail sector dominates the townships of Tembisa, Kathorus, Daveyton, Etwatwa and Kwatsaduza.</p> <p>The average economic growth rate over the past 20 years was 3.95%, with the most significant contribution to the total value of the local economy coming from business services (23.7%) and manufacturing (18.2%) sectors. Mining (2.4%), utilities (1.9%) and agriculture (0.4%) are the smallest contributing sectors.</p> <p>The fuel, petroleum, chemical and rubber products sub-sector contributed 24% to total regional manufacturing output in 2018 making it the second most dominant contributor after the metal sub sector.</p> <p>Strengthening industrial competitiveness of CoE through modern industrial systems and infrastructure development, including the development of new value chains, markets and their associated products and influencing broader access and participation (especially by small and medium enterprises) in the economic activities of the region is the hallmark of CoE economic development endeavours.</p>

10. CULTURAL/HISTORICAL FEATURES

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

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

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m² in extent; or

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

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

YES	NO X
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If YES, explain:

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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:

Any possible archaeological sites will indeed not be impacted on. The chances of finding any heritage related features are indeed extremely slim, if any.

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)?

YES	NO X
YES	NO X

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

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

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

2. LOCAL AUTHORITY PARTICIPATION

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

Was the draft report submitted to the local authority for comment?

YES	NO X
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If yes, has any comments been received from the local authority?

YES	NO
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If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

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

The draft report has been made available for public review electronically (link) from 2 – 31 July 2023. All I&APs have therefore been given an opportunity to comment on this document for a period of 30 days. All comments made will be included in the comments and response register.

After submission of the draft report to the authorities (GDARD & CoE), during the public review period, these authorities were also afforded an opportunity to submit their comments to be addressed in the final report.

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 X	NO
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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):

Ward Councillor	2023-06-23	Meeting. • Interested in the investment made. • Job creation is important. Please provide information on the above.	Provided feedback
Comments on draft report			
SAHRA	2023-07-31	38(4)a – The SAHRA Development Applications Unit (DAU) has no objections to the proposed development; 38(4)b – The recommendations provided by the heritage specialists are supported and must be adhered to. There are no further additional specific conditions. 38(4)c(i) – If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage	Noted, no objection. Agreed. Refer to EMPr.

		<p>resources are found during the proposed development, SAHRA DAU (Nokukhanya Khumalo/Natasha Higgitt 021 202 8660) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offence in terms of section 51(1)e of the NHRA and item 5 of the Schedule;</p> <p>38(4)c(ii) – If unmarked human burials are uncovered, the SAHRA DAU (Nokukhanya Khumalo/Natasha Higgitt 021 202 8660), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section of the NHRA is an offence in terms of section 51(1)e of the NHRA and item 5 of the Schedule;</p> <p>38(4)d – See section 51(1) of the NHRA;</p> <p>38(4)e – The following conditions apply with regards to the appointment of specialists:</p> <p>i) If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;</p> <p>The Final BAR and EMPr must be submitted to SAHRA for record purposes;</p> <p>The decision regarding the EA Application must be communicated to SAHRA and uploaded to the SAHRIS Case application</p>	<p>Uploaded on 2023-08-31. Will upload upon receipt.</p>
GDARD	2023-08-01	Acknowledgement of receipt of application and draft report	
GDARD	2023-08-30	5. Specialist studies	<p>Note no geotechnical and dolomite stability assessment was provided.</p> <p>Palaeontological, Cultural Heritage and Biodiversity was provided.</p>

		8. Maps, layout plans, services route positioning Locality Map, Facility illustration and Layout Map are not included in the Draft BAR Report are, these must also be included in the Final BAR.	These were included as Appendices and in the EMPr but will also be copied into the BAR.
		9. Public Participation Process Public Participation must be undertaken in accordance with the EIA Regulations, 2014 (as amended). Comments from all relevant stakeholders must be adequately addressed and submitted to the Department with the Final BAR. Clear proof of correspondence (site notice, newspaper advertisement, email, fax, delivery, etc.) with stakeholders must be included in the Final BAR.	Included in Appendix E
		10. Environmental Management Programme (EMPr) The EAP must ensure that all significant impacts identified during the impact assessment as well as issues raised by I&APs have been addressed in the EMPr. Responsibility and timeframes must be clearly defined and assigned for all phases of the development. Furthermore, the impacts to be identified as well as its mitigation measures as per the proposed alternatives must also form part of the Final BAR.	Included in EMPr.

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

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

Appendix 3 – Proof of newspaper advertisements

Appendix 4 –Communications to and from interested and affected parties

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

Appendix 6 - Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each 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

"insert No. of duplicates"

 times (complete only when appropriate)

Section D Alternative No.

"insert alternative number"

 (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 X	NO
Very minimal waste m ³	

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

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

Solid waste removal is already in place through the municipality. Very minimal waste is to be anticipated during the expansion of the facility and will not add significantly to the volumes currently generated.

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

General waste – collected by Pikitup (part of municipal waste stream)

Hazardous waste – collected by registered service providers and taken to licensed facilities

Will the activity produce solid waste during its operational phase?

YES	NO X
Same as current m ³	

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

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

The activity as such does not produce solid waste, however, the facility produces general waste due to workers on site (operational phase – operational site).

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?

YES	NO X
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Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

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?

YES	NO X
-----	------

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?

YES	NO X
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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:

Prevention of spillages through good housekeeping and maintenance.

Spill kit to be kept on site to responsibly deal with spillages.

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?

YES	NO X
m ³	

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

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

YES	NO
-----	----

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

Yes	NO X
m ³	

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

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

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

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

YES NO X

If yes, provide the particulars of the facility:

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

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

Liquid effluent (domestic sewage)

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

YES X NO

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

Same as current m³

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

YES NO X

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

YES NO X

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

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES NO X

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

YES NO

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

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

No emissions under normal operating conditions. Monitoring: Gas detection installer at filling bay, gas storage vessels and pumps at tanks.

2. WATER USE

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

Municipal X	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

liters

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

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

YES NO X

If yes, list the permits required

If yes, have you applied for the water use permit(s)?

YES NO

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

YES NO

3. POWER SUPPLY

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

Municipality (CoE)

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

4. ENERGY EFFICIENCY

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

LPG is more economical than many other energy sources due to its very high thermal efficiency and low maintenance requirements as it avoids scaling and corrosion of parts which also extends the lifespan of infrastructure.

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

LPG is environmentally friendly as it is a cleaner energy source:

- It has minimal sulphur content.
- It has the lowest black carbon emissions – low carbon alternative to conventional fossil fuels.
- It is clean burning and emits 33% less CO₂ (carbon dioxide) than coal and 15% less than heating oil – the lowest CO₂ emissions amongst all refined fuels.
- It has a low particle emission.
- It has low NO_x emissions.

SECTION E: IMPACT ASSESSMENT

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

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

During the consultation process, nobody raised any concerns or objections.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

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

No responses required

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

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

The significance of the adverse environmental impacts identified were assessed in terms of their:

- Duration;
- Extent;
- Probability; and
- Severity.

The above was used to determine the significance of an impact without any mitigation, as well as with mitigation.

Nature of an impact: An impact's nature can be positive (+) or negative (-).

Consequence: Considers duration, extent and severity

Consequence = duration + extent + severity

IMPACT SIGNIFICANCE (IS)		
Impact Significance	IS score range	Description
Low (L)	<15	The impact is minor or insubstantial; it is of little importance to any stakeholder and can easily be rectified.
Moderate Low (ML)	16 - 45	The impact is limited in extent, even if the intensity is major; the probability will only be likely, the impact will not have a significant impact considered in relation to the bigger picture; no major material effect on decisions and will require only small-scale management intervention bearing moderate costs.
Moderate High (MH)	46 - 70	The impact is significant to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
High (H)	71 <	The impact could render options controversial or the entire project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in project decision-making.

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

Proposal

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Hard surfaces will increase the runoff volumes and flow velocity of stormwater	Negative	Stormwater management plan to include the following measures: <ul style="list-style-type: none"> • Concrete surface with bund walls around storage tanks and appropriate pollution control necessary to prevent discharge of water containing polluting matter; • Runoff from the facility must be strictly controlled, and contaminated water must be collected and stored (bunds) and either treated (via cement drains to water and oil separation plant) or disposed of off-site, at a location legally approved to accept the wastewater and approved by the Municipality (keep safe disposal certificate); 	Moderate Low	Pollution of surface water (through accumulation and run-off)
Pollution / contamination of stormwater due to spills during removal LPG tank	Negative		Moderate Low	
Pollution / contamination of surface water due to polluted / contaminated stormwater runoff	Negative		Moderate Low	
Pollution / contamination of stormwater due to leaks / spillages	Negative		Moderate Low	

		<ul style="list-style-type: none"> Hydrocarbon traps must be implemented as part of the stormwater management system; All spillages of hydrocarbons onto surfaces must be controlled by the use of an approved absorbent material and the used absorbent material disposed of at an appropriately licensed waste disposal facility such as Holfontein (keep safe disposal certificate). 		
Emissions / vapour from vehicles / tanks	Negative	<ul style="list-style-type: none"> All vehicles and machinery / equipment used on, or entering the facility, must be maintained and serviced regularly to ensure that they do not emit excessive emissions; Bulk tanks and all gas pipelines must be protected against corrosion to prevent gas leaks; LPG road tankers must be inspected when they enter the facility, for possible overheated tyres, smell of heated rubber, LPG leaks or other defects that can place the site at risk; Avoid diesel spills or inappropriate handling of diesel or LPG; Workers to wear appropriate PPE for area / work; Storage tanks for any HCS should meet the necessary storage requirements, and should be regularly inspected for any defects which may cause leaks or gases to escape; Maintain a complaints register and ensure that all complaints relating to emissions are effectively addressed. 	Low	<p>Nuisance for residents or people at work</p> <p>Health risk</p> <p>Risk of explosion</p>
Further loss in aesthetic quality	Negative	<ul style="list-style-type: none"> Good housekeeping must be implemented; Proper waste management is essential - if not done properly, can contribute to an untidy and aesthetically unpleasing facility; Under no circumstances should waste be stored on the pavements or anywhere outside the facility; Vehicles should not be allowed to park and accumulate outside on the road; Where possible and during the expansion phase, shade netting should be used to temporarily screen areas which may be visible and unsightly to neighbours. 	Low	Visual impact
Workers not using / wearing correct PPE when handling LPG	Negative	<ul style="list-style-type: none"> All employees working with the LPG must be trained in the safe use of the substance and according to the respective material safety data sheet (MSDS); Appropriate personal protective equipment (PPE) must be made available to employees and must be applicable to the area / work to be done (gloves, protective clothing, eye protection, face protection, respiratory protection); Health impacts should be included in risk assessments and sufficient planning is required in terms of possible medical emergencies. 	Moderate Low	Health impacts
Noise from trucks accessing the facility	Negative	<ul style="list-style-type: none"> The applicant is to abide by the by-laws of the local municipality relating to noise control. Maintain a complaints register and ensure that all complaints relating to noise are effectively addressed; Ear plugs are to be worn by workers as and when required. Reduce noise from vehicles by: <ul style="list-style-type: none"> turning off engines when they are not in use; checking the brakes are properly adjusted and don't squeal; 	Moderate Low	Nuisance for residents or people at work

		<ul style="list-style-type: none"> - no revving the engine unnecessarily; - only using the horn in emergencies; and - replacing exhaust systems as soon as they become noisy 		
Increased movement of vehicles in and out of the facility	Negative	<ul style="list-style-type: none"> • Designated entrance and exit for vehicles/trucks to be included in traffic management plan; 	Moderate Low	Degradation of existing roads (socio-economic impact on other road users)
Road closures and traffic disruption during removal and installation of tanks	Negative	<ul style="list-style-type: none"> • Dedicated and planned transport routes and times to be used as far as possible; • Trucks/vehicles to be properly maintained to minimise risk of leaks or failures; • Adequate space must be provided for road tankers to park safely during delivery of LPG; • Road tankers must never reverse or manoeuvre on site; • Parking outside the premises should not be allowed, and dedicated parking bays must be allocated. 	Moderate Low	<p>Traffic congestion</p> <p>Accidents</p>
Labour disputes or strikes	Negative	Ongoing training, awareness and interventions.	Low	Safety and security
Fires / explosion	Negative	<ul style="list-style-type: none"> • Designated smoking areas must be allocated; • Bins must be provided for cigarette buds at the designated smoking area; • All possible ignition sources at the facility must be eliminated; • No waste, especially flammable waste, must be stored close to LPG tanks or road tankers; • Dry powder or Carbon Dioxide fire extinguishers are effective against LPG fires; • Adequate fire water storage on-site - water is effective in cooling LPG vessels during a fire and in helping to keep the temperature of tanks and their contents below critical levels. Water spray can be useful in protecting fire-fighters attempting to close LPG supply valves in heat-affected areas and in dispersing LPG vapour. • The Emergency Response Action Plan (ERAP) must provide effective response methods to deal with fires or explosions; • Fire-fighting equipment must be available on all vehicles located on site; • A double-brick firewall is required between LPG storage tanks; • LPG tanks must be protected against lightning; • The local Fire Protection Agency must be informed of activities (CoE Emergency Management Service); • Contact numbers for the emergency services must be communicated in environmental awareness training, toolbox talks and displayed at a central location on site; • CoE (EMS) certificate of registration for flammable substances to be displayed. 	Moderate Low	<p>Healthy and safety</p> <p>Damage to property and neighbours</p>
Using inappropriate working methods or equipment (handling and storage of LPG)	Negative	<ul style="list-style-type: none"> • The storage and use of hazardous substances to be minimised and substituted with non-hazardous and non-toxic alternatives where possible; • All hazardous substances will be stored in suitable containers as defined in the legislation and Material Safety Data Sheet; • Containers will be clearly marked to indicate contents, quantities and safety requirements; • All storage areas will be bunded. The bunded area will be of sufficient capacity to contain a spill / leak from the stored 	Moderate Low	<p>Contamination of stormwater due to leaks / spills</p> <p>Health and safety impacts due to incorrect handling and storage methods</p> <p>Pollution of surface water due to incorrect</p>

		containers (110% of container capacity); • An Alphabetical Hazardous Chemical Substance (HCS) control sheet will be drawn up and kept up to date on a continuous basis; • All HCS that will be used on site will have Material Safety Data Sheets (MSDS); • All employees working with HCS will be trained in the safe use of the substance and according to the safety data sheet; • Employees handling HCS must be aware of the potential impacts and follow appropriate safety measures. Appropriate personal protective equipment (PPE) must be made available; • All empty dirty drums must be stored on a drip tray or within a bunded area; • No unauthorised access into the HCS's storage areas shall be permitted; • No smoking must be allowed within the vicinity of the HCS storage areas; • Adequate fire-fighting equipment must be made available at all HCS storage areas; • An appropriately sized spill kit relevant to the scale of the activity involving the use of HCS must be kept on-site and available at all times; • The responsible operator must have the required training to make use of the spill kit in emergency situations; • In the event of a spill, contaminated absorbent material (from spill kit) must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act (Act 59 of 2008) and the Norms and Standards for waste storage (GNR 926 of 29 November 2013).		disposal methods
Deterioration of roads surrounding the facility	Negative	Parking outside the premises should not be allowed. Only designated routes to be followed.	Moderate Low	Degradation of existing roads (socio-economic impact on other road users)
Income generated from operations will boost regional and local economy and present knock-on opportunities	Positive	None	Positive	Socioeconomic

Alternative 1

(REPEAT THIS TABLE FOR EACH ALTERNATIVE)

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

No Go

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Safety and security	Negative	To authorize the proposed expansion of the LPG facility	Moderate Low	LPG facility being neglected or vandalised, increasing

Socioeconomic	Negative	To authorize the proposed expansion of the LPG facility	Moderate Low	criminal activities Impact on regional and local economy due to loss of income and knock on opportunities
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List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

- Archaeos Culture & Cultural Resources Consultants, 2023. Letter for HIA exemption request: Proposed expansion to 130m3 liquid petroleum gas (LPG) storage tanks on Erf 179 Apex x3, 18 Apex road west, as well as the establishment of eight (8) 33m3 tanks with alcohol, benzene and kerosene respectively on Erven 265 & 266 apex x4, corner London and Antwerp streets, Benoni
- The Biodiversity Company (TBC), 2023. Shield Chemicals GPS0026 Fuel Site, 18 Apex Road – Terrestrial Compliance Statement Benoni, City of Ekurhuleni, Gauteng. June 2023.

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

The findings, results, observations, conclusions and recommendations given in this report are based on the author's best scientific and professional knowledge as well as available information at the time of compilation (June 2023). The report is based on review and assessment techniques which are limited by time and budgetary constraints relevant to the type and level of investigation undertaken (Basic Assessment Process) and HydroScience and its staff reserve the right to modify aspects of the report if and when new information may become available from changes in legislation, on-going research or further work in this field, or pertaining to this investigation.

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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 (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Not applicable at this stage				

Alternative 1

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

Alternative 2

Potential impacts:	Significance rating of	Proposed mitigation:	Significance rating of	Risk of the impact and
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	impacts (positive or negative):		impacts after mitigation:	mitigation not being implemented

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

Not applicable at this stage

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

Not applicable at this stage

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:

- Socioeconomic - income generated from operations will boost regional and local economy and present knock-on opportunities
- Increase in traffic volumes resulting in congestion
- Continuous storm water management with effective controls are required to reduce cumulative impacts

5. ENVIRONMENTAL IMPACT STATEMENT

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

Proposal

Based on the findings of the biodiversity specialist, the survey area comprises of no vegetation and possesses extremely limited biodiversity value. In consideration of the ecological information provided within this statement and that the fuel facility is required for the functioning of the company, it is the opinion of the specialist that the activity may proceed.

Since it is the expansion of an existing operational site within a built-up area, most of the impacts are anticipated during the operational phase. All potentially adverse impacts could be mitigated through management measures as described in the EMPr to a low to moderate low significance.

Alternative 1

Not applicable

Alternative 2

Not applicable

No-go (compulsory)

The no-go alternative will imply that the project is not approved and the expansion will therefore not go ahead as planned. This will not meet the need for Shield Chemicals (Pty) Ltd planned expansion of its operations which is required.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The proposed expansion may not result in any adverse impacts on the natural and social environment. The nature and type of negative impacts do not outweigh the potential benefits of this project.

Since it is the expansion of an existing operational site within a built-up area, most of the impacts are anticipated during the operational phase. All potentially adverse impacts could be mitigated through management measures as described in the EMPr to a low to moderate low significance.

For alternative:

Not applicable

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.

The proposed expansion may not result in any adverse impacts on the natural and social environment. The nature and type of negative impacts do not outweigh the potential benefits of this project.

7. SPATIAL DEVELOPMENT TOOLS

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

According to the Gauteng Environmental Management Framework (GEMF), the property falls within the Gauteng EMF Zone 2.

Regional Spatial Development Framework (SDF): Region D

Region D is located favourably in terms of economic activity and employment and can be described as a multi-centred region as it has multiple locations of economic activity (business and industrial) and human settlements.

Industrial development occurs predominantly along the eastern (Geduld Proprietary Mines, Enstra), southern (Fulcrum, New Era And Vulcania) and western (Benoni South And Apex) boundaries of Region D.

The facility falls within a preferred urban growth area and therefore supports the spatial development plans to overcome the fragmented nature of the city and to develop a continuous urban structure in support of engineering, social and business services.

8. RECOMMENDATION OF THE PRACTITIONER

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

YES x	NO
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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:

It is the opinion of the EAP that the project may continue from an environmental perspective based on the following:

Legal:

- The applicant is operating an existing LPG facility on the site.

Socio-economic motivation:

- The applicant will invest R6 million on this project
- Though no new jobs will be created, this project is required to efficiently operate the existing business with 400 employees.
- The business supports 400 families directly and other businesses and their workers who are suppliers of this facility.
- LPG is more economical than many other energy sources due to its very high thermal efficiency and low maintenance requirements as it avoids scaling and corrosion of parts which also extends the lifespan of infrastructure.

Biophysical environment:

- LPG is environmentally friendly as it is a cleaner energy source:
- It has minimal sulphur content.
- It has the lowest black carbon emissions – low carbon alternative to conventional fossil fuels.
- It is clean burning and emits 33% less CO₂ (carbon dioxide) than coal and 15% less than heating oil – the lowest CO₂ emissions amongst all refined fuels.
- It has a low particle emission.
- It has low NO_x emissions.
- Although the DFFE screening tool shows that the site is Very High in terms of sensitivity for the Terrestrial Biodiversity, Palaeontology and Archeological and Cultural Heritage Themes, this is not the case based on site assessments.
- Services such as electricity, water supply, solid waste removal and sewage management are already in place.
- The site is void of vegetation.

Land use:

- The site is situated within an industrial area.
- The site is an operational LPG site.
- The property falls within the Gauteng EMF Zone 2.
-

During the consultation process, nobody raised any concerns or objections.

All potentially adverse impacts identified in Section 9 could be mitigated through management measures as described in Section 10 (EMPr) to a low to moderate low significance.

The project can be authorised only with compliance to the EMPr.

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

Economic: Financial investment by applicant:	R6 million
Employment:	No new job opportunities. Forms part of current operations which employs 400 people.
Social: Need for applicant:	Shield Chemicals (Pty) Ltd requires additional LPG storage capacity for their operations.
Economic: Need for expansion:	In order to operate their existing facilities economically, more LPG storage capacity is required.
Need & desirability & sustainability of LPG as an energy source:	<p><u>Economic:</u> LPG is more economical than many other energy sources due to its very high thermal efficiency and low maintenance requirements as it avoids scaling and corrosion of parts which also extends the lifespan of infrastructure.</p> <p><u>Environment:</u> LPG is environmentally friendly as it is a cleaner energy source:</p> <ul style="list-style-type: none"> • It has minimal sulphur content. • It has the lowest black carbon emissions – low carbon alternative to conventional fossil fuels. • It is clean burning and emits 33% less CO₂ (carbon dioxide) than coal and 15% less than heating oil – the lowest CO₂ emissions amongst all refined fuels. • It has a low particle emission. • It has low NOx emissions.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED (CONSIDER WHEN THE ACTIVITY IS EXPECTED TO BE CONCLUDED)

5 years

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

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

EMPr attached

YES

SECTION F: APPENDIXES

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

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

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

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

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

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

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.