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BOKAMOS
Landscape Architects & Environmental Consultants CC

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED FILLING STATION ON ERF 489 OF ASPEN HILLS EXTENSION 6 IN THE CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY, GAUTENG PROVINCE

FOR INTERESTED AND AFFECTED PARTY REVIEW AND COMMENT

GAUT 002/22-23/E3354

October 2022

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Balwin PROPERTIES

REPORT DETAILS

Report Details	Rev 1
Report Title	Draft Basic Assessment Report (BAR) for the proposed Filling Station on Erf 489 Aspen Hills Extension 6
Date Submitted	October 2022
Project Consultant	Bokamoso Landscape Architects and Environmental Consultants CC
Prepared by	Lizelle Gregory and assisted by Edwin Greyling EAP in Training BSc Honours Environmental Water Management BSc Geography & Environmental Science
Public Participation compiled and reviewed by	Lizelle Gregory
Final review by	Lizelle Gregory, (BLArch) Lizelle has 30 years' experience in the field of environmental management and is a member of the South African Council of the Landscape Architects Profession (SACLAP), the International Association of Impact Assessments (IAIA) and the Institute of Environmental Management and Assessment (IEMA). Professional Practice Number: 97078 Lizelle is also a registered EAP at EAPASA with registration number *EAP 2019/1788*
Declaration	I, Lizelle Gregory, managing member of Bokamoso Landscape Architects and Environmental Consultants CC hereby confirm my independence in terms of Section 13.(1)(a) of the National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended) 2014 EIA Regulations as amended.
Copyright Warning	Unless otherwise noted, the copyright in all text and other content (including the manner of presentation) is the exclusive property of Bokamoso Landscape Architects and Environmental Consultants CC.

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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.
6. **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.**
7. **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.**
8. 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.
9. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
10. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.

Not applicable

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

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

Not applicable

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? **NO**

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

If no, state reasons for not attaching the list.

NA

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

If no, why?

This is the report to be made available to the registered Interested and Affected Parties (I&AP's), state departments and Competent Authority for a 30-day review and comment period. Comments received on this report and Bokamoso's response will be included in the Comments and Response Report to be submitted with the BAR to the Competent Authority. The comments and response report for comments received to date has been included in the BAR as ***Appendix D5***.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

PROPOSED NEW FILLING STATION ON ERF 489, ASPEN HILLS X 6

The filling station will be developed in the north-eastern tip of a larger study area, which already received Environmental and Land-use approvals for a mixed-use development referred to as Thaba Ya Batswara Mixed-Use Development (as referred to in the EA issued). The development is now referred to as the Thaba Eco Village Development/ Aspen Hills x 6. For purpose of this application we will refer to Aspen Hills x 6 and/or The Thaba Eco Village Mixed-Use development.

The proposed filling station will be located on Erf 489, Aspen Hills x 6, in the north-western corner of the intersection between Kliprivier Drive and the Access Road to the Thaba Eco Village.

1.1 Background

Balwin Properties Limited is planning to develop a filling station on ERF 489 of Aspen Hills EXT 6, which is located within the area of jurisdiction of the City of Johannesburg Metropolitan Municipality (CoJMM), Gauteng Province. The physical address of the study area is 1 Thaba Street, Aspen Hills Extension 6, Johannesburg 2053. The size of the study area is 7510m$^{2.}$.

The current zoning of the study area is "Business 3". It is the applicant's intentions to rezone the site from "Business 3" to "Special" for the purpose of a filling station, ATM, Car Washing Facility and Convenient store. The proposed new filling station will enjoy access via Road P72-1/ Kliprivier Drive/ Road K85. Take note that construction already commenced on the study area, as the study area forms part of a larger study area, which already received an EA for a mixed-use development. The development activities that took place on the study area mainly involved some site clearance and the study area can therefore be regarded as already transformed/ largely transformed, with only some vegetation remaining.

According to the current General Plan for the Aspen Hills x 6 Township such township

consists of 5 erven (erven 487 – 491) and it also includes a throughfare, which is located on Portion 142 of the Farm Rietvlei No. 101-IR.

The township approval as described above, excluded a zoning for a filling station and therefore a rezoning application in terms of the City of Johannesburg Metropolitan Municipality: Spatial Planning and Land Use Management By-Laws of 2016 (hereinafter referred to as the "By-Law") has been lodged to obtain the required rights. ***Refer to Figure 1 for Locality Map and Figure 2 for an Aerial Map of the study site.***

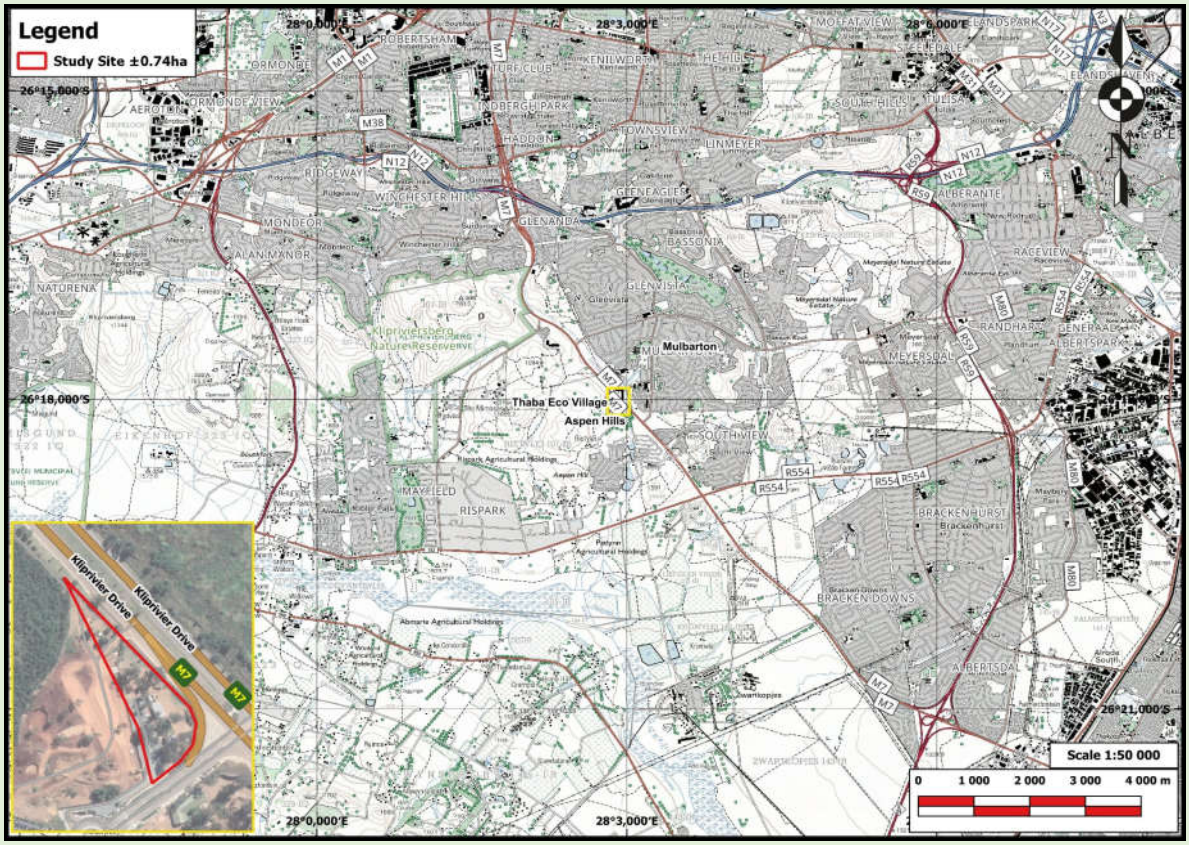

Figure 1: Locality Map

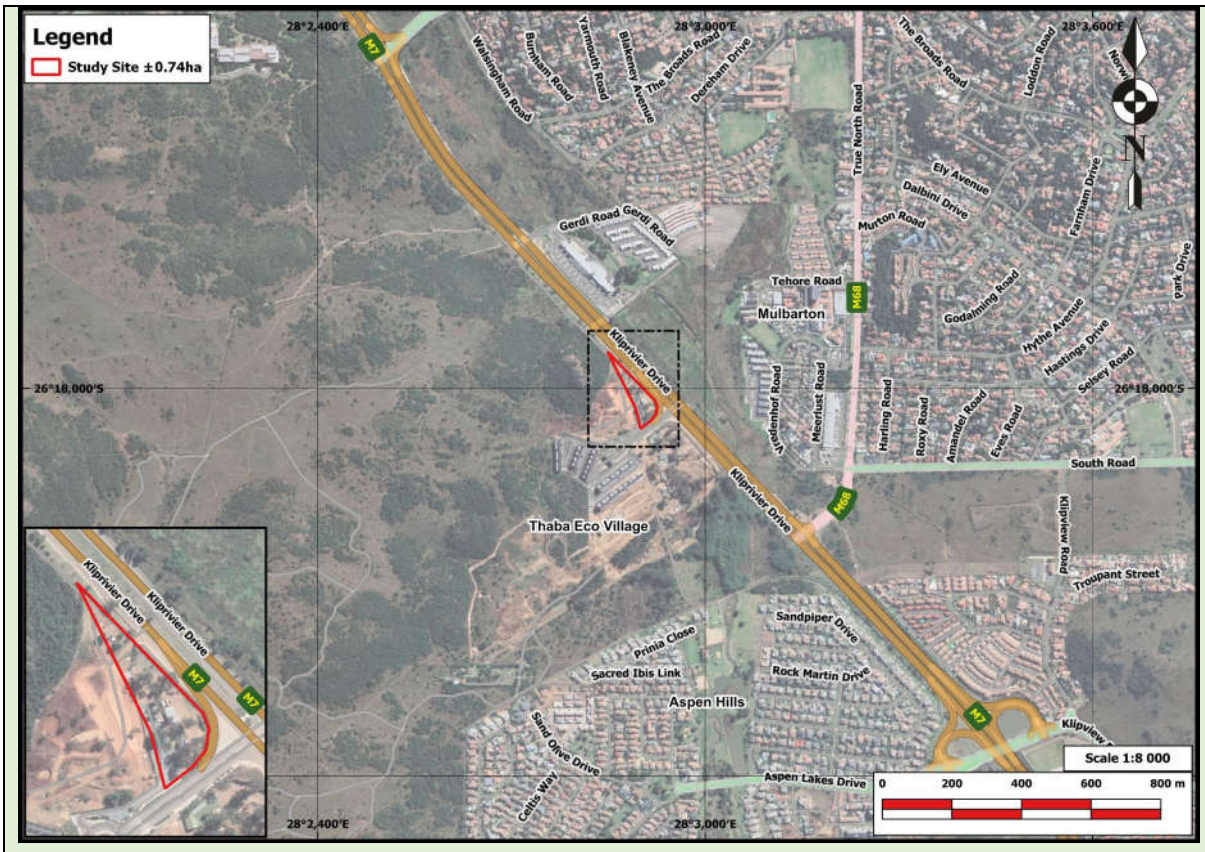

Figure 2: Aerial Map

Two accesses to the study site are proposed. Marginal access to the site has been approved from Kliprivier Drive in a northbound direction, at a spacing of ±145m from the Access Road, and from the Access Road in an eastbound direction, at a spacing of ±75m from Kliprivier Drive. ***Refer to Appendix F1 for the Town Planning Memorandum.***

It is proposed that the Total Fuel Storage Capacity for the filling station be 490m3. Refer to Table1 for a breakdown of the Fuel Storage Details.

Table 1: Fuel Tank Details

Petrol Tanks	**Capacity**
Unleaded 93 Petrol (46m^3) x2	92 m^3
Unleaded 95 Petrol (46 m^3)	46 m^3
Unleaded 95 Petrol (84 m^3) x2	168 m^3
Diesel Tanks	
Diesel 50ppm (46 m^3) x2	92 m^3
Diesel 500ppm (46 m^3)	46 m^3
Diesel 500ppm (23 m^3) x2	46 m^3
Combined Total Fuel Storage Capacity	**490 m^3**

There are two filling stations within a 3km radius of the proposed filling station. The nearest filling station is the Shell Mulbarton Filling Station, which lies approximately 0.85km to the South-East of the study area. The other filling, namely the Engen Glen Vista Motors Filling Station is located 2.6 km to the North-East of the proposed filling station.

It should be noted that the development boundary of the filling station falls within the development boundary of the Thaba Eco Village development. The Thaba Eco Village development has already received an Environmental Authorisation (EA) from GDARD. The GDARD reference number for the EA is **Gaut 002/11-12/E0161** and the DWS reference number for the S21WUL issued for the development is **10/C22D/CI/5072**.

The need for this application pertains to activities associated with the development of the filling station triggering activities in Listing Notice 1: R983, and Listing Notice 3: R985, as amended, which were not authorized by the original environmental authorization.

In this application, the developer will be applying for the following activities as listed in Listing Notice 1: R983, and Listing Notice 3: R985, as amended).
More detail of the activities triggered are supplied below.

Indicate the number of the relevant Government Notice:	**Activity No (s) (relevant notice): e.g. Listing notices 1, 2 or 3**	**Describe each listed activity as per the wording in the listing notices:**
R 983, December 2014, as amended	Listing Notice 1 Activity 14	The development and related operation 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 cubic metres or more but not exceeding 500 cubic metres.
Reason for inclusion: The proposed filling station will store dangerous goods (hydrocarbons) in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.		
R 985, as amended	Listing Notice 3 Activity 4	The development of a road wider than 4 metres with a reserve less than 13,5 metres **c. Gauteng**

		i. ……; ii. ……;; iii. ……; iv. **Sites identified as** Critical Biodiversity Areas (CBAs) **or Ecological Support Areas (ESAs**) in the Gauteng Conservation Plan or in bioregional plans; v. ……; vi. ……; vii. ……; viii. …… ix. ……; x. ……; xi. ……; or xii. …….
Reason for inclusion: Internal roads wider than 4 meters will be constructed as part of the development within Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs), thus triggering this listed activity.		
R 985, December 2014, as amended	**<u>Listing Notice 3</u>** Activity 12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. **(c) Gauteng:** **i. Within critically endangered** or endangered **ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;** **ii. Within** Critical Biodiversity Areas **or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;** or iii. ……;
Reason for inclusion: The proposed filling station will have a small footprint, which will require earthworks and the removal of vegetation. Due to the site in question being situated in the Critically Endangered Klipriver Highveld Grassland Ecosystem as well as Ecological Support Areas in terms of the Gauteng Conservation Plan, this activity was considered. It is however important to note that GDARD already issued an EA for the removal of vegetation on the study area and the holder is already allowed the develop the		

entire study area.

In light of the above, we are of the opinion that activity is covered in the EA already issued and that this activity could be excluded from the activities applied for in this application.

It is requested that GDARD confirm whether this activity needs to be included as part of the application.

Select the appropriate box

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

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

YES X	NO

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

The Department of Energy - the proposed filling station will require a Site and Retail License in terms of the Petroleum Products Act, 1977 (Act No. 120 of 1977).

If yes, have you applied for the authorisation(s)?	**Y**ES	**NO** It will only be possible to apply for the Site and Retail License once the land-use rights and EA for the proposed filling station are in place. It is the intention of the applicant to apply for the Site and Retail License as soon as the required authorisations are in place.
If yes, have you received approval(s)? (attach in appropriate appendix)	YES	**NO**

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) [NEMA].	**National & Provincial**	**27 November 1998**

The NEMA is primarily an enabling act in that it provides for the development of environmental implementation plans and environmental management plans. The principles listed in the act serve as a general framework within which environmental management and implementation plans must be formulated.

The Minister of Environmental Affairs and Tourism passed (on 8 December 2014)

new Environmental Impact Assessment Regulations (the Regulations) in terms of Chapter 5 of the National Environmental Management Act, 1998 as amended (NEMA).

The purpose of the EIA process is to determine the possible negative and positive impacts of the proposed activity on the surrounding environment and to provide measures for the mitigation of negative impacts and to maximize positive impacts.

The activities as listed in Listing Notices 1 and 3 require that a Basic Assessment (BA) process be followed while the activities listed in terms of Listing Notice 2 require that the Scoping and EIA process be followed. Listing Notice 3 is province specific and has been introduced to make provision for activities triggered in specific geographical areas.

Implications for the Project:

The application for the proposed filling station triggers activities listed under Listing Notice R. 983 (Listing Notice 1) and Listing Notice R. 985 (Listing Notice 3) (as amended) and therefore a Basic Assessment Report (BAR) will be submitted to the GDARD for consideration.

National Water Act, 1998 (Act No. 36 of 1998, as amended) [NWA]	**National & Provincial**	**20 August 1998**

The purpose of this act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account, amongst other factors, the following:

- Meeting the basic human needs of present and future generations;
- Promoting equitable access to water;
- Promoting the efficient, sustainable and beneficial use of water in the public interest;
- Reducing and preventing pollution and degradation of water resources;
- Facilitating social and economic development; and
- Providing for the growing demand for water use.

In terms of the section 21 of the National Water Act, the developer must obtain water use licences if the following activities are taking place:

a) Taking water from a water resource;
b) Storing water;
c) Impeding or diverting the flow of water in a water course;
d) Engaging in a stream flow reduction activity contemplated in section 36;
e) Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
f) Discharging waste or water containing waste into a water resource through a pipeline, canal, sewer, sea outfall or other conduit;
g) Disposing of waste in a manner which may detrimentally impact on a water resource;
h) Disposing in any manner which contains waste from or which has been heated in any industrial or power generation process;

i) Altering the bed, banks, course or disposing of water found underground if it is necessary for the safety of people;
j) Removing, discharging, or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
k) Using water for recreational purposes.

The National Water Act also requires that (where applicable) the 1:50 and 1:100 year flood line be indicated on all the development drawings (even the drawings for the external sewer line) that are submitted for approval.

If a Water Use Licence (WUL) is required, and in this case it is, the Regulations regarding the Procedural Requirements for Water Use Licence Applications and Appeals, 2017 also becomes applicable.

Implications for the Project:

The site is located within 500m of a watercourse which is regarded as a regulated area. The proposed development site falls within the Thaba Eco Village/ Aspen Hills x6 development boundary and the Department of Water and Sanitation (DWS) already issued a Section 21 (c) and (i) license for the development footprint. The proposed filling station will be developed within the development footprint as authorised by GDARD in its EA and by DWS in the S21WUL that was issued. The reference number for the Section 21 WUL issued by DWS is (10/C22D/CI/5072).

Refer to Figure 3 for the Rivers and Wetlands Map

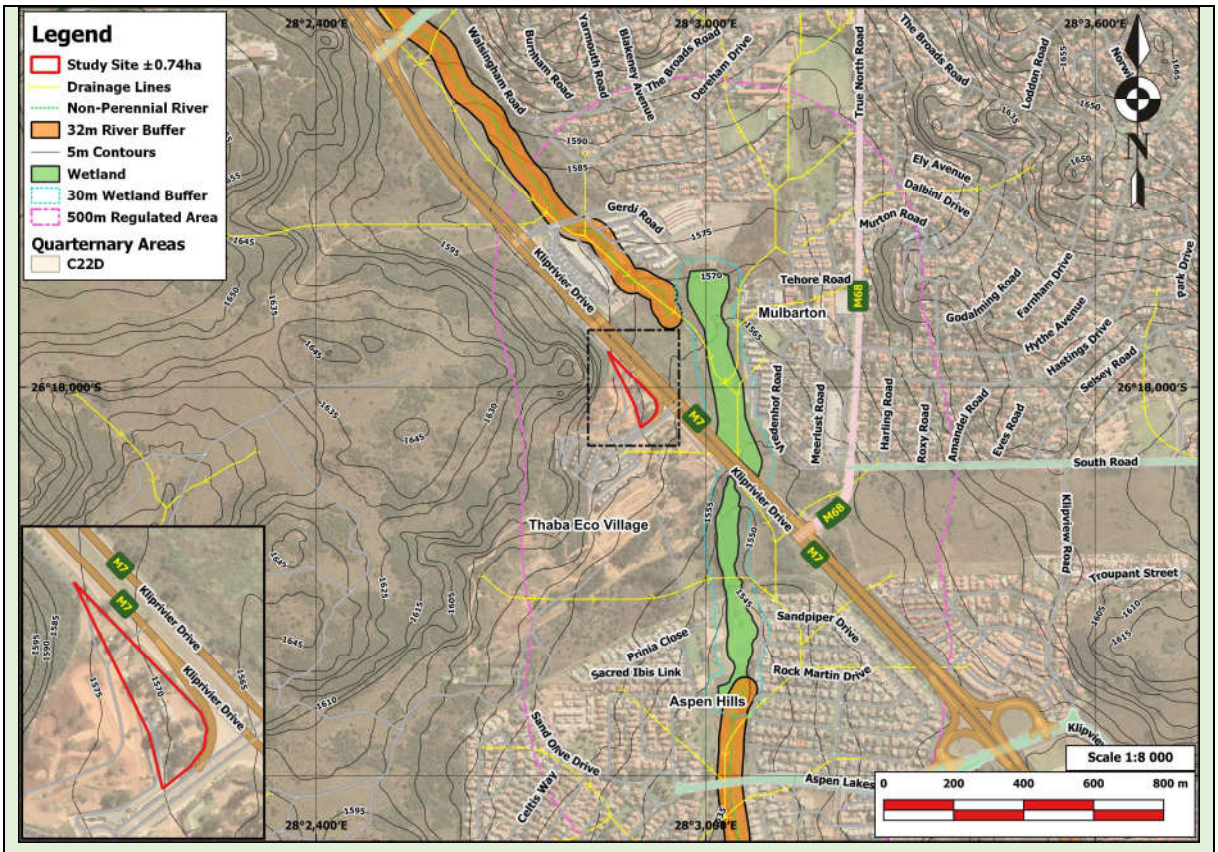

Figure 3: Rivers and Wetlands

Conservation of Agricultural Resources Act (Act No. 43 of 1983)	**National**	**1 June 1983**

This act provides for control over the utilization of natural agricultural resources of South Africa in order to promote the conservation of soil, water sources and the vegetation as well as the combating of weeds and invader plants; and for matters connecting therewith.

Implications for the Project:

According to the Gauteng Agricultural Potential Atlas (GAPA 3), the proposed filling station is situated on land with high agricultural potential. However, the study site is regarded as fragmented and too small to function as a viable agricultural unit the area surrounding the proposed development is also developed and not regarded as suitable for large scale agricultural activities.

Also take note that GDARD already approved development across the entire study area earmarked for the filling station. ***Refer to Figure 4 for an Agricultural Potential Map of the Study Area***

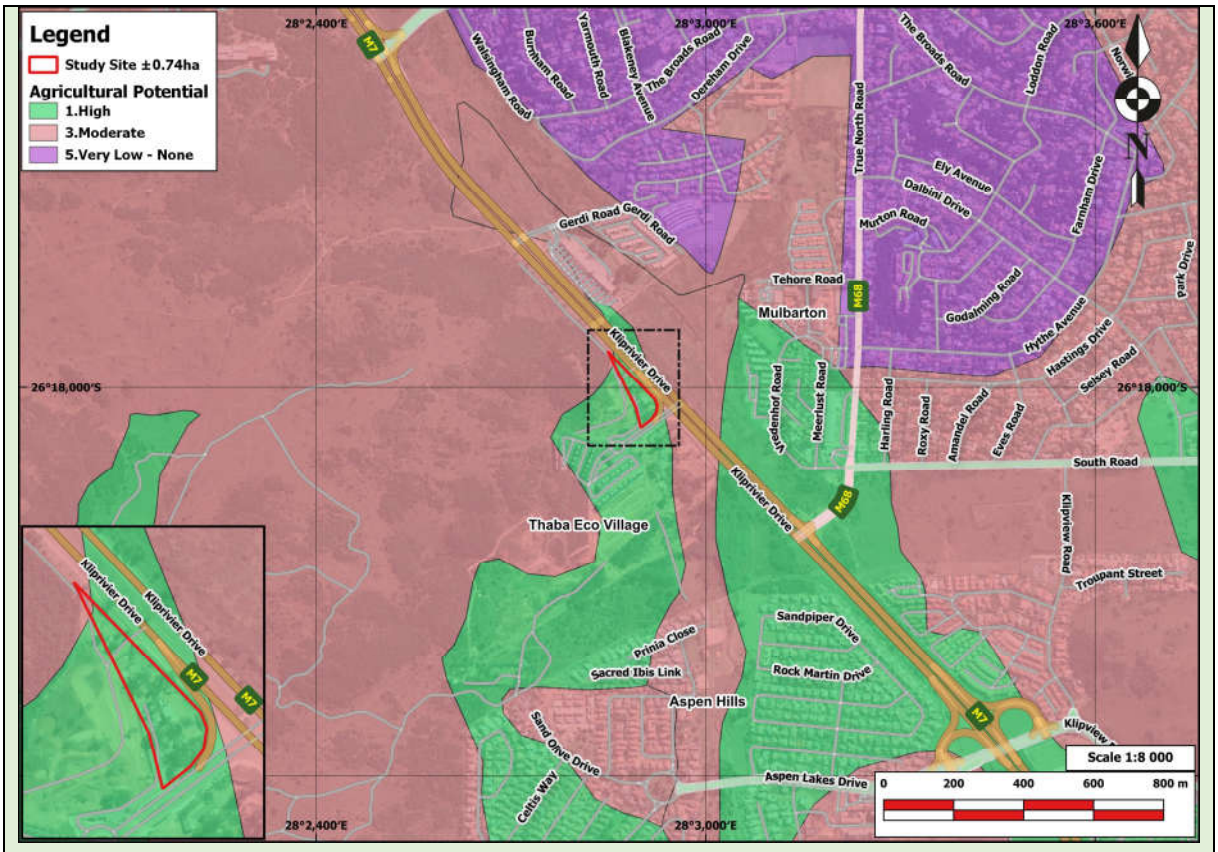

Figure 4: Agricultural Potential

National Heritage Resources Act, 1999 (Act No. 25 of 1999)	National & Provincial	1999

The National Heritage Resources Act legislates the necessity and heritage impact assessment in areas earmarked for development, which exceed 0.5ha and linear development exceeding 300m in length. The act makes provision for the potential destruction to existing sites, pending the archaeologist's recommendations through permitting procedures. Permits are administered by the South African Heritage Resources Agency (SAHRA).

In Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) the following categories are listed require that the competent heritage authority be notified of a proposed development:

"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 300 m in length;

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

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

(i) exceeding 5000 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 has 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 provisional 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."

Implications for the Project:

The entire Aspen Hills x 6/ Thaba Eco Village study area was formerly subject to various cultural and historical studies and the relevant heritage authorities already approved development across the entire study area, subject to certain conditions, which have already been addressed and incorporated as part of the Environmental Management Programme (EMPR) for the larger Thaba Development.

SAHRA and PHRAG will however also be informed of the proposed new filling station on the study area and their comments will be taken into consideration when compiling the final BAR.

National Environmental Management: Waste Act , 2008 (Act No. 59 of 2008, as amended)	**National**	**11 July 2009**

It aims to consolidate waste management in South Africa, and contains a number of commendable provisions, including:

- The establishment of a national waste management strategy, and national and provincial norms and standards, for amongst other, the classification of waste, waste service delivery, and tariffs for such waste services;
- Addressing reduction, reuse, recycling and recovery of waste;
- The requirements for industry and local government to prepare integrated waste management plans;
- The establishment of control over contaminated land;
- Identifying waste management activities that requires a license, which currently include facilities for the storage, transfer, recycling, recovery, treatment and disposal of waste on land;
- Co-operative governance in issuing licenses for waste management facilities, by means of which a licensing authority can issue an integrated or consolidated license jointly with other organs of state that has legislative control over the activity; and
- The establishment of a national waste information system.

Implications for the Project:

No listed waste management activities will take place on site and therefore a waste licence will not be required. Construction and operational phase waste will be removed on a regular basis and disposed of at a registered landfill site.

Take note that landfill sites in South-Africa are no longer (since the end of 2019) allowed to receive liquid waste.

National Environmental Management Protected Areas Act , 2003 (Act No. 57 of 2003, as amended)	**National**	**2003**

The purpose of this act is to provide for the protection, conservation, and management of ecologically viable areas representative of South Africa's biological biodiversity and its natural landscapes.

The Act also requires the establishment of a national system of protected areas in South Africa and the management and conservation of the biodiversity of the areas as listed in the system. The Listing Notices included as part of the 2014 NEMA EIA Regulations also include listed activities that take place within or in close proximity of Protected Areas. It is therefore important to confirm whether a study area is situated within or in close proximity of a Protected Area at the beginning of the EIA process.

Implications for the Project:

The proposed filling station is not located within a protected area and it does not occur near a protected area. ***Refer to Figure 5***

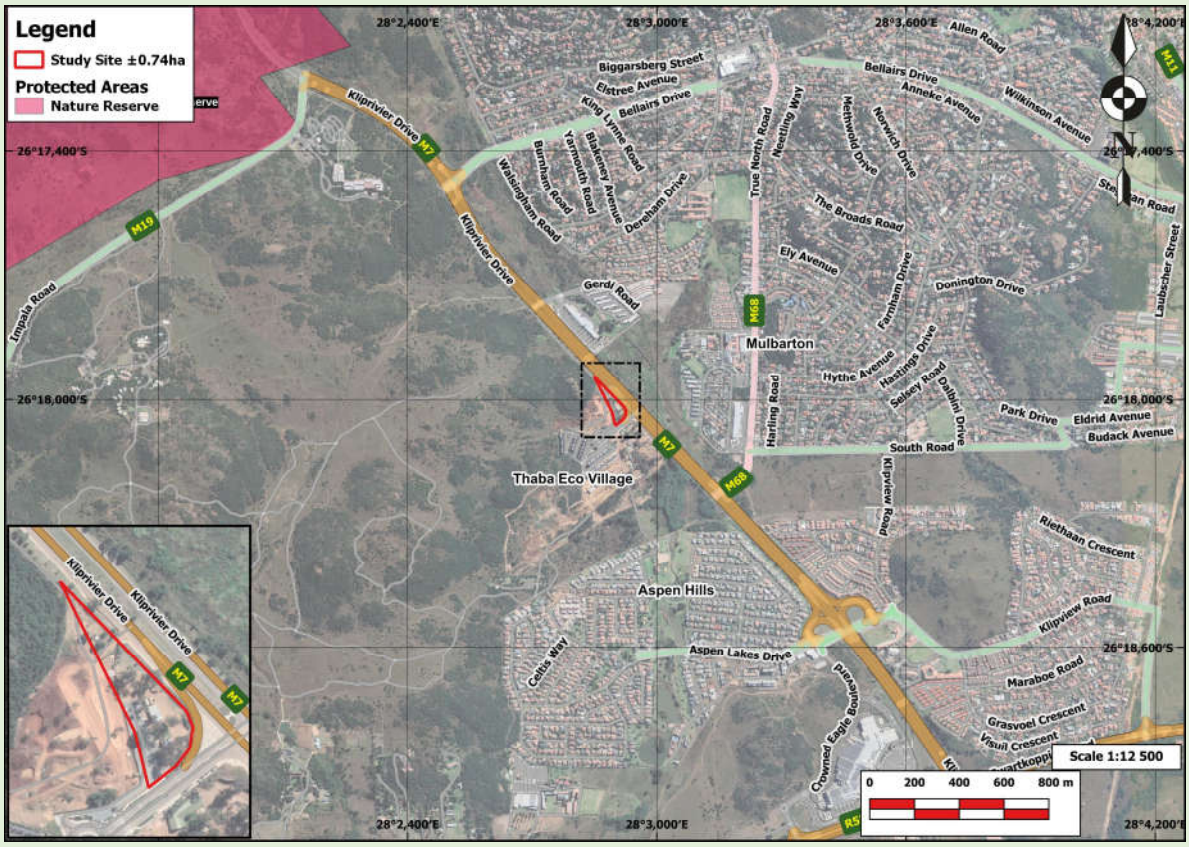

Figure 5: Protected Areas

National Environmental Management:	**National**	**2004**

Biodiversity Act, 2004 (Act No.10 of 2004)		

The act provides for the management and protection of the country's biodiversity within the framework established by NEMA. It provides for the protection of species and ecosystems in need of protection, sustainable use of indigenous biological resources, equity, and bio prospecting, and the establishment of a regulatory body on biodiversity- South African National Biodiversity Institute.

Objectives of the act:

(a) With the framework of the National Environmental Management Act, to provide for:
  (i) The management and conservation of biological diversity within the Republic and of the components of such biological diversity:
  (ii) The use of indigenous biological resources in a sustainable manner; and
  (iii) The fair and equitable sharing among stakeholders of benefits arising from bio-prospecting involving indigenous biological resources;
(b) To give effect to ratified international agreements relating to biodiversity which are binding on the republic;
(c) To provide for co-operative governance in biodiversity management and conservation; and
(d) To provide for a South African National Biodiversity Institute to assist in achieving the objectives of this act.

Under this act, notices are published in terms of alien and invasive species or threatened ecosystems in order to promote the biodiversity of natural resources and protect species endemic to South Africa.

Implications for the Project:

According to published threatened ecosystems data, the site is situated within an ecosystem that is regarded as a Threatened Ecosystem, namely the "Klipriver Highveld Grassland" and it is regarded as Critical Endangered. However, the vegetation on site is no longer characteristic of the Klipriver Highveld Grassland ecosystem thus no negative impacts are anticipated. ***Refer to Figure 6 for the Threatened Ecosystems Map***

The study area forms part of a larger study area, which already received approval for a development across the entire site and therefore the implementation of the filling station will not have a significant implication.

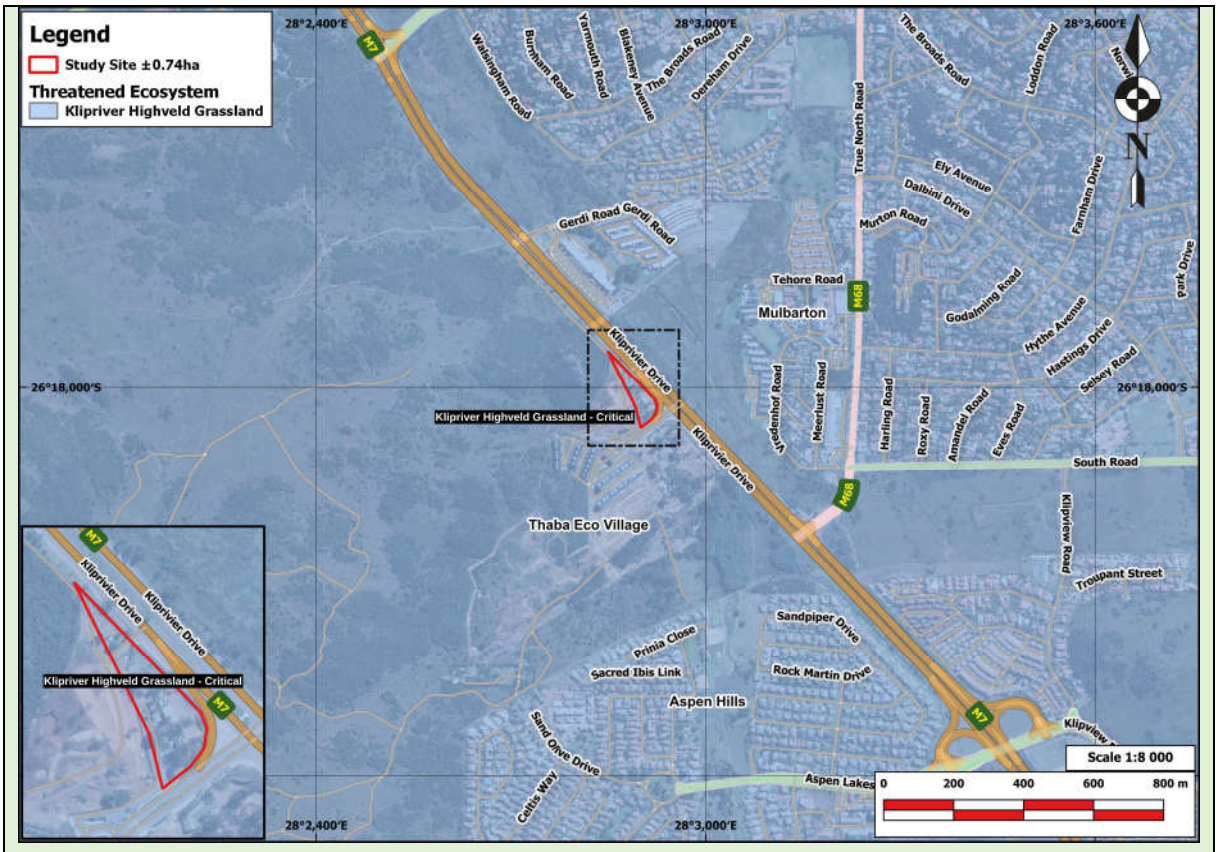

Figure 6: Threatened Ecosystems

National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004, as amended) [NEM:AQA]	**National & Provincial**	**2004**

The NEM:AQA serves to repeal the Atmospheric Pollution Prevention Act (Act No. 45 of 1965) and various other laws dealing with air pollution and it provides a more comprehensive framework within which the critical question of air quality can be addressed.

The purpose of the act is to set norms and standards that relate to:

- Institutional frameworks, roles and responsibilities;
- Air quality management planning;
- Air quality monitoring and information management;
- Air quality management measures; and
- General compliance and enforcement.

Amongst other things, it is intended that the setting of norms and standards will achieve the following:

- The protection, restoration and enhancement of air quality in South Africa
- Increased public participation in the protection of air quality and improved public access to relevant and meaningful information about air quality.
- The reduction of risks to human health and the prevention of the degradation of air quality.

The act describes various regulatory tools that should be developed to ensure the implementation and enforcement of air quality management plans. These include:

- Priority areas, which are air pollution 'hot spots.
- Listed activities, which are 'problem' processes that require an Atmospheric Emission Licence.
- Controlled emitters, which includes the setting of emission standards for 'classes' of emitters, such as motor vehicles, incinerators, etc.
- Control of noise.
- Control of odours.

Implications for the Project:

During the construction phase of the proposed filling station, generation of dust could become a factor to surrounding land owners, but this will be over short distances and a very short period of time.

However, if the development is well planned and the mitigating measures are successfully implemented as per the Environmental Management Programme Report (EMPr), the proposed filling station construction's contribution to air pollution can be prevented and/or mitigated to more acceptable levels.

Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001, as amended)	**Provincial**	**2001**

The act was created to consolidate the laws relating to roads and other types of transport infrastructure in Gauteng; and to provide for the planning, design, development, construction, financing, management, control, maintenance, protection and rehabilitation of provincial roads, railway lines and other transport infrastructure in Gauteng; and to provide for matters connected therewith.

In terms of Section 46 of the act, no person may erect, construct, or lay, or establish a structure or object on or over, or below the surface of a provincial road or railway line or land in a building restriction area.

Gauteng Transport Infrastructure Amendment Act, 2003 - The aim of this Amendment Act is to amend the Gauteng Transport Infrastructure Act, 2001 so as to amend and insert certain definitions; to provide for the necessary land use rights with respect to stations and for the necessary powers of the MEC to enter into contracts for road and rail projects; to amend the procedure in relation to route determination; to make a second environmental investigation at the stage of preliminary design of a road or railway line unnecessary where the competent environmental authority decides that the environmental investigation at the stage of route determination is adequate; and to provide for incidental matters.

Implications for the Project:

This provincial act must be taken into consideration when planning for infrastructure and development. In cases where provincial and national roads,

their road reserves and associated infrastructure (i.e. culverts) are affected, the competent authority namely the Gauteng Department of Roads and Transport (GDRT) – (and SANRAL where national roads are involved) must be notified of the proposed development. In some cases GDRT must supply **wayleaves** prior to commencing with construction activities underneath, across, adjacent to and on existing provincial/ national roads or planned provincial or national roads.

In this specific case Klipriviers Drive is involved. ***Refer to Figure 7 for Aerial Map which indicates the affected Provincial and National Roads as well as proposed future roads.***

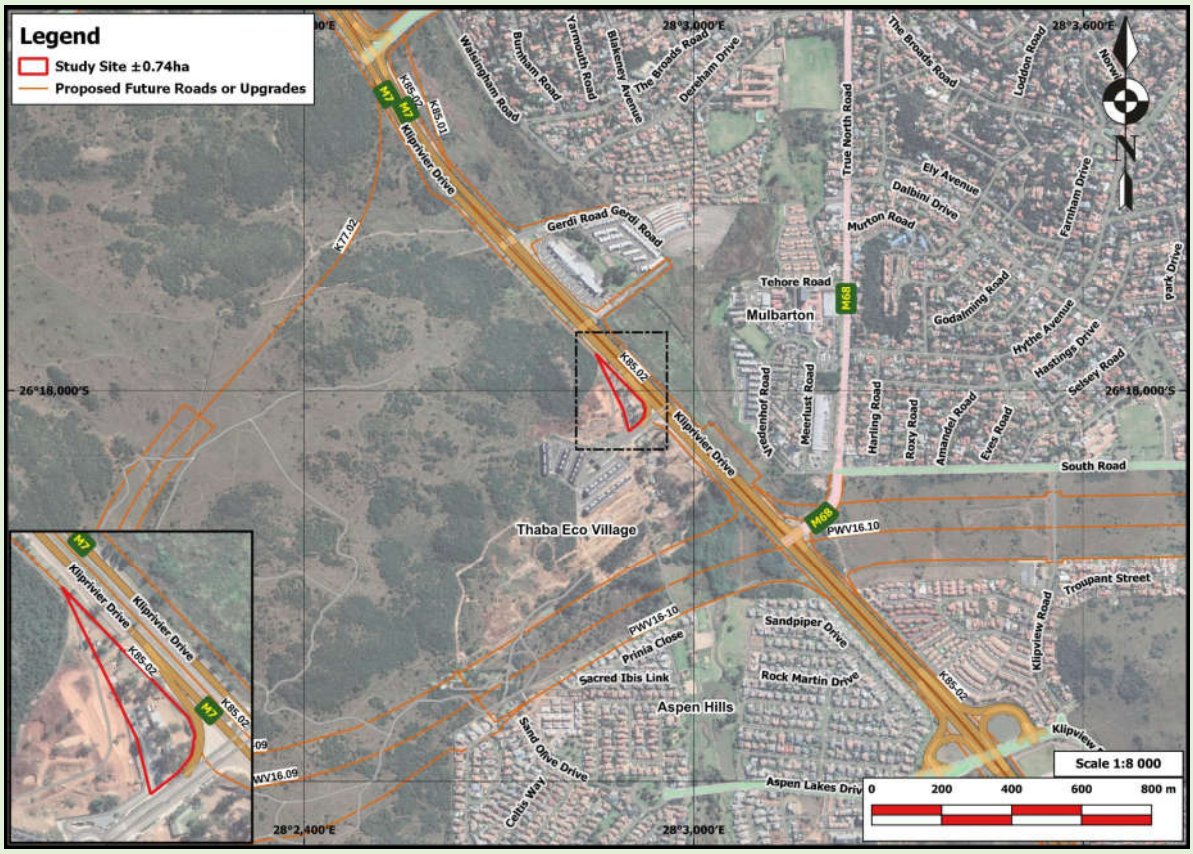

Figure 7: Affected Roads

The project engineers need to supply confirmation of the road authority's support for the proposed filling station.

The Johannesburg Road Agency (JRA), The Gauteng Department of Roads and Transport (GDRT) and SANRAL are invited to comment on the contents of this BAR. Issues raised by JRA, GDRT and SANRAL will be addressed in collaboration with the appointed traffic and civil engineers.

Occupational Health & Safety Act (Act No. 85 of 1993) and Occupational Health & Safety Amendment Act (Act No. 181 of 1993)	**National & Provincial**	**1993**

The act was created to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

Implications for the Project:

This Act regulates all health and safety aspects during the construction and operational phases of the development and must be taken into consideration for all employees and the public.

The COVID-19 special health and safety precautionary measures for development must be taken into consideration and the consultants, specialists, project managers, developer and the involved contractors must allow for the implementation of precautionary measures during all the planning and construction phases in their project tenders and budgeting processes.

GDARD 2001 Ridges Policy and the Updated Ridges Guideline of 2019	**National**	**2014**

The Ridges Guideline published by GDARD in 2001 identified several ridges ranges across Gauteng. Ridges with slopes steeper that 5°/ 8,8% were captured by means of a province wide slope analysis and the ridges that were delineated during the GIS exercise, were eventually classified into 4 categories/ classes. The classification system was based on the level of disturbance identified across the various ridge ranges.

The 2001 Ridges Policy regarded a Class 1 Ridge as a ridge which is only 0-5% developed and no further development is supported on a Class 1 ridge. A Class 2 Ridge is a ridge that is 5-35% developed and usually only low impact development is supported on a Class 2 Ridge.

Class 3 and 4 ridges are ridges that are already highly transformed and GDARD will consider some development on Class 3 and 4 Ridges.

The 2001 Ridges Policy requires that a 200m buffer be applied around Class 1 and Class 2 Ridges and the 2019 updated ridges guideline document only requires that the 200m buffer be applied around a Class 1 Ridge.

The Ridges Policy is only regarded as a guideline and it states that the GDARD Head of Department (HoD) has the authority to deviate from the policy, based on site specific merits.

The filling station study area as well as the Thaba Eco Village study area is affected by a Class 2 Ridge and the EA issued for the Thaba Ya Botswara/ Thaba Eco Village Development approved a specific development footprint adjacent to the

ridge. The proposed new filling station is located within the approved development footprint for the larger Thaba Development and therefore the ridges policy will not have any impact on the development of the proposed filling station on the study area. ***Figure 8 below confirms that the proposed filling station will be located to the immediate east of the Class 2 Ridge.***

Implications for the Project:
Not significant.

The approved EA and EMPR for the larger study area already included guidelines to avoid or reduce visual impacts on the ridge. Such guidelines (where required as necessary) as well as new aesthetical guidelines to reduce impacts on the natural characteristics of the ridge will be included as part of the Environmental Management Programme (EMPr) compiled for the filling station. ***The EMPR for the filling station is attached hereto as Appendix G.***

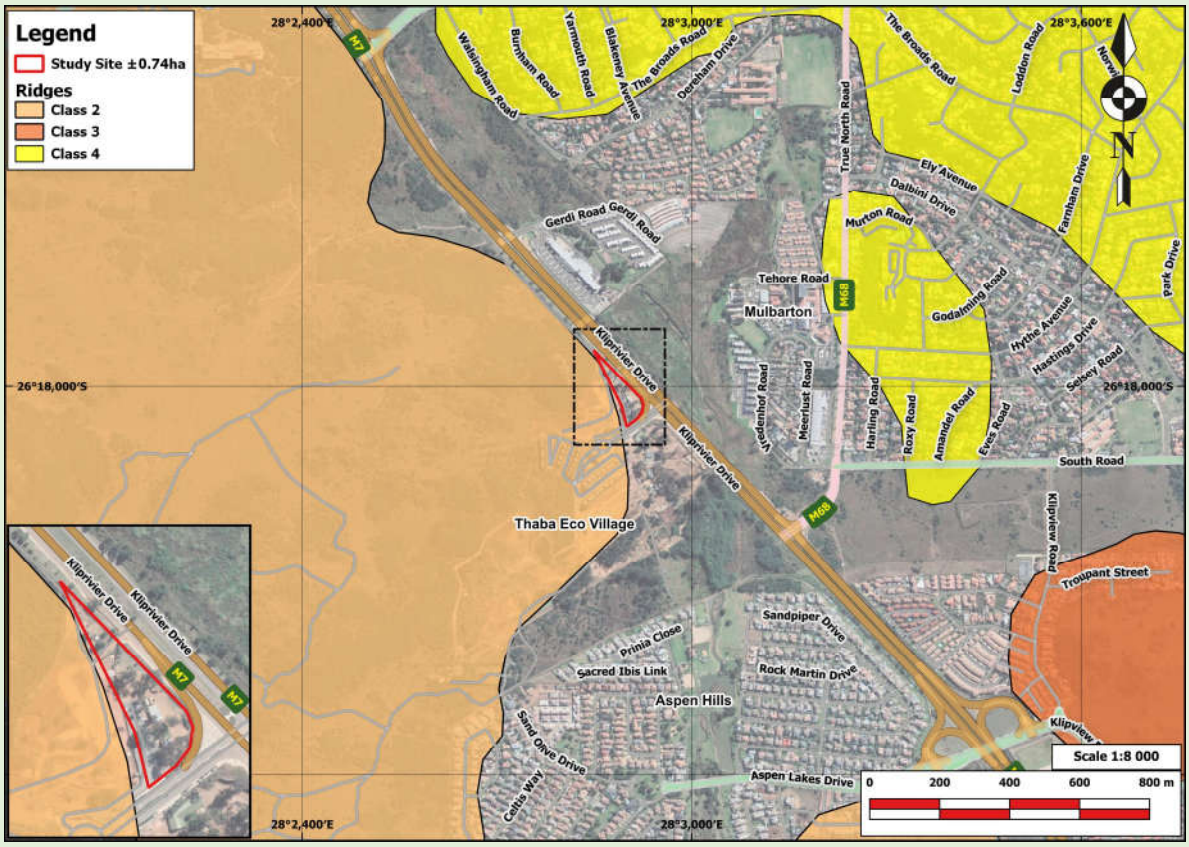

Figure 8: Ridges Map

Gauteng Conservation Plan (C-Plan) Version 3.3	Provincial	2001 and 2019

Gauteng Nature Conservation (hereafter Conservation), a component of the Gauteng Department of Agriculture and Rural Development (GDARD) produced the Gauteng Conservation Plan Version 3 (C-Plan 3) in December 2010. The conservation plan was edited on three occasions since then: C-Plan 3.1 was

released in July 2011 after it became apparent that some areas were not desirable in Critical Biodiversity Areas (CBAs hereafter). Not all areas were addressed in the first round of editing, so this was done during September 2011 resulting in C-Plan Version 3.2. It was soon released however, that some CBAs became separated by the removal of undesirable areas causing some attributes not to be completely reflective of that CBAs any longer. C-Plan 3.3 became available in October 2011 (as amended) after this issue was addressed.

The main purposes of C-Plan 3.3 are:

- to serve as the primary decision support tool for the biodiversity component of the Environmental Impact Assessment (EIA) process;
- to inform protected area expansion and biodiversity stewardship programs in the province;
- to serve as a basis for development of Bioregional Plans in municipalities within the province.

Implications for the Project:

Not significant.

Even though the study area is not regarded as an Ecological Support Area (ESA), it is almost surrounded ESAs. As mentioned GDARD already approved development across the entire study area. The sensitivity of the surrounding area must be taken into consideration during the planning, construction, operational and decommissioning phases of the filling station development. ***Refer to Figure 9 for the Conservation Plan Areas***

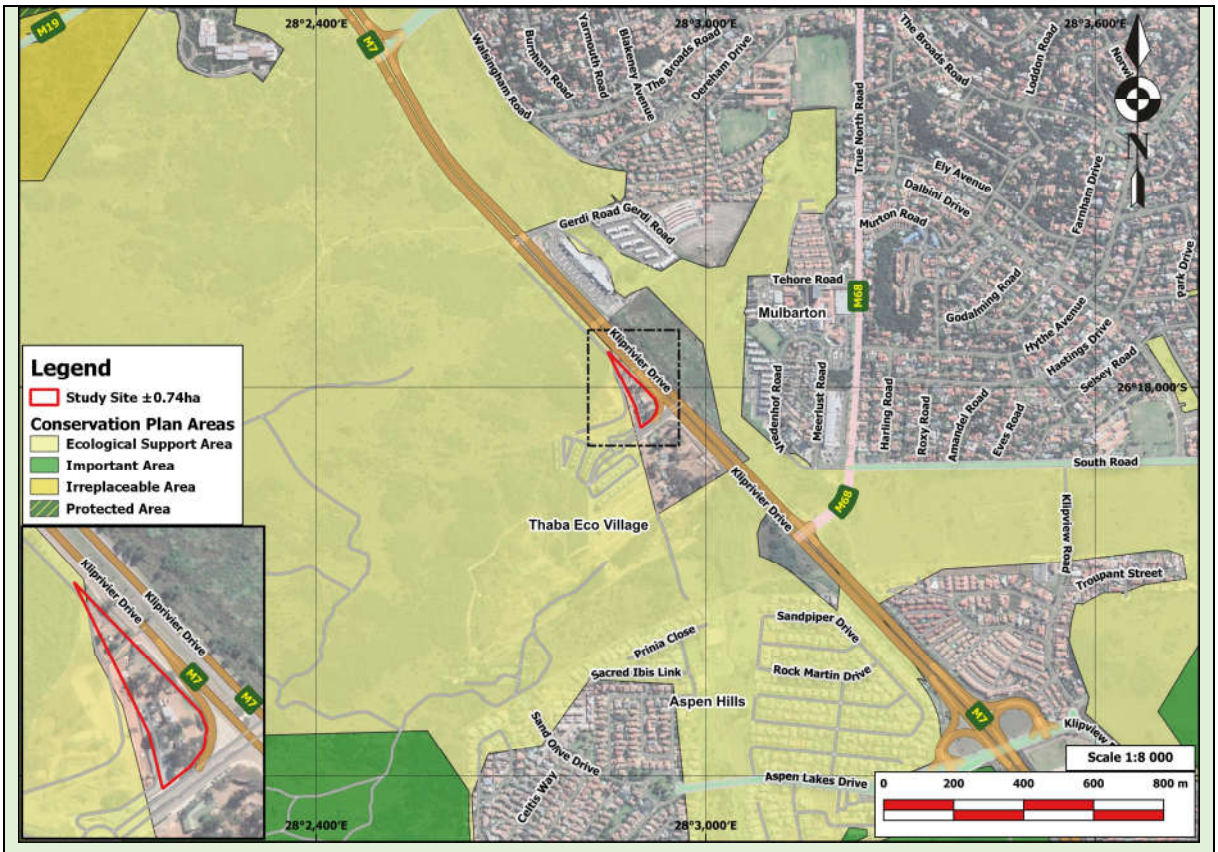

Figure 9: Conservation Plan Areas

GDARD Agricultural Hub Policy	Provincial	2014

GDARD identified seven Agricultural Hubs in Gauteng Province. These hubs are earmarked for agricultural activities and there are policies and guidelines that should be taken into consideration when one plans to develop in these hubs areas. Urban development is usually not supported in these hubs.

Implications for the Project:

Not significant

The study area does not fall within any of the seven Agriculture Hubs identified for the Gauteng Province and GDARD already approved development across the entire study area. ***Refer to Figure 13***

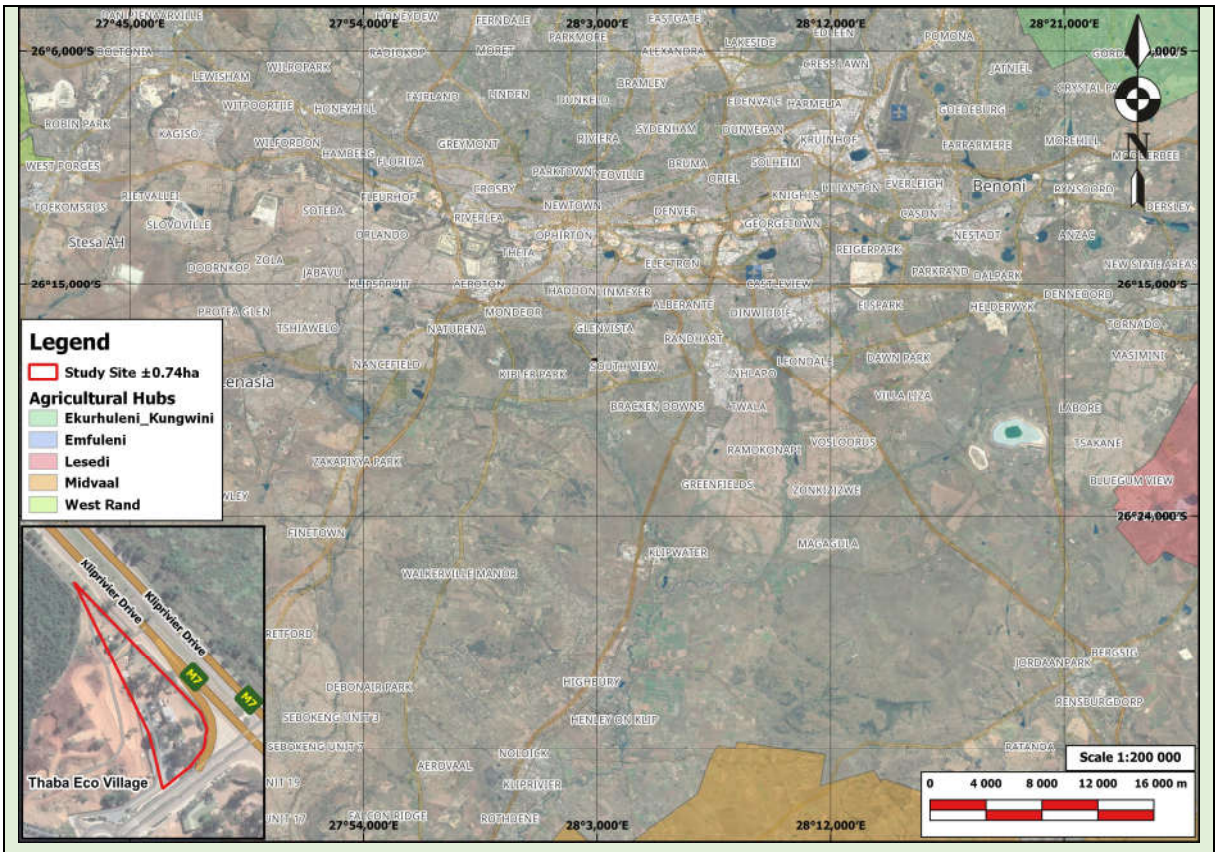

Figure 10: Gauteng Agricultural Hubs

Gauteng Draft Red Data Policy	**Provincial**	**2006**

The main purpose of the Draft Red Data Policy is to protect red data fauna and flora species as well as areas with high bio-diversity within Gauteng Province. This policy requires that red data species, red data species habitats, areas with high biodiversity and areas with high ecological potential are conserved.

Implications for the Project:

Not significant.

Even though GDARD already approved development across the entire study area, Bokamso requested that a specialist conduct a follow-up fauna and flora assessment of the study area. No Red-Listed plant species have been recorded on the study site during the follow-up ecological survey. ***Refer to Appendix F3 for the Terrestrial Biodiversity Assessment Survey and Figure 11 for the Gauteng C-Plan Red and Orange Listed Plants.***

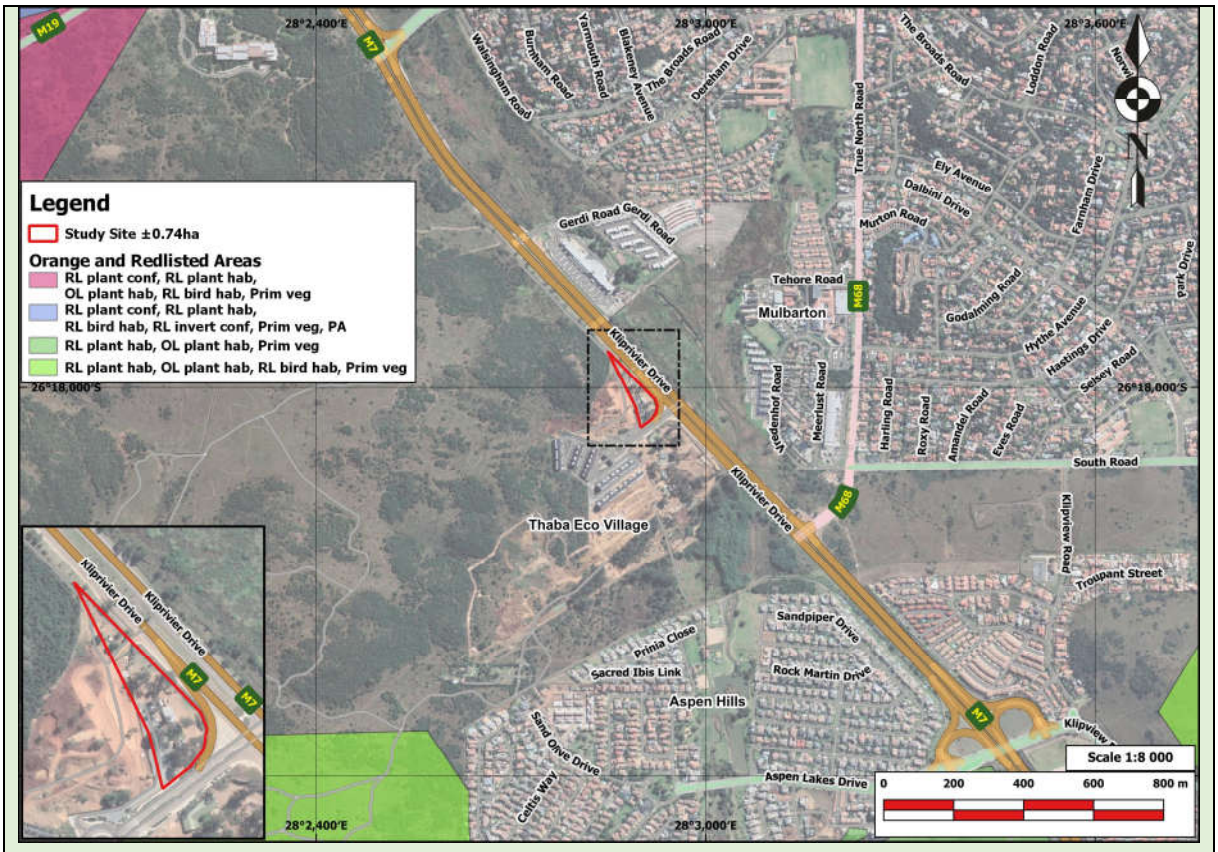

Figure 11: Gauteng C-Plan Red and Orange Listed Plants

Gauteng Noise Control Regulations	**Provincial**	**2001**

The regulation controls noise pollution. According to the acceptable noise levels in a residential area situated within an urban area is 55dBA and the maximum acceptable noise levels in a rural area is 45dBA.

Implications for the Project:

Not significant.

If well planned and if mitigation measures are successfully implemented, the proposed development will not contribute to significant noise generation in the area.

The noise impacts will mainly be during the construction phase and is will therefore only be short term of nature. One should note that there are not many practical mitigation measures for noise pollution, but certain measures can be implemented to mitigate the severity. ***(Refer to Appendix G (EMPr) for a list of suitable guidelines and mitigation measures)***

City of Johannesburg Spatial Development Framework (SDF), 2016-2040	**Provincial**	**1999**

The Johannesburg SDF seeks to address five major issues in Johannesburg's spatial

and social landscape:

- Increasing pressure on the natural environment and green infrastructure;
- Urban sprawl and fragmentation;
- Spatial inequalities and the job-housing mismatch;
- Exclusion and disconnection emanating from high potential underused areas (the mining belt and the Modderfontein area), gated developments, and disconnected street networks (high cul-de-sac ratios and low intersection densities); and
- Inefficient residential densities and land use diversity.

Implications for the Project:

The proposed development is in line with the development principles of the spatial development for Gauteng and the city of Johannesburg by providing much needed services in the area.

Gauteng Provincial Environmental Management Framework	**Local**	**2018/19**

The Gauteng Department of Agriculture and Rural Development (GDARD) decided to produce an Environmental Management Framework for the whole of Gauteng (GPEMF). The GPEMF replaces all other EMFs in Gauteng with the exception of the Cradle of Humankind World Heritage Site, which is incorporated within the GPEMF.

The objective of the GPEMF to guide sustainable land use management within the Gauteng Province. The GPEMF, inter alia, serve the following purposes:

- To provide a strategic and overall framework for environmental management in Gauteng;
- Align sustainable development initiatives with the environmental resources, developmental pressures, as well as the growth imperatives of Gauteng;
- Determine geographical areas where certain activities can be excluded from an EIA process; and
- Identify appropriate, inappropriate and conditionally compatible activities in various Environmental Management Zones in a manner that promotes proactive decision-making.

The province has been divided into 5 management zones of which Zone 1: Urban Development Zone and Zone 5: Industrial and Large Commercial focus zone, proposes the exclusion of certain NEMA listed activities in order to streamline development.
The remaining zones of the EMF are not excluded from the listed activities of NEMA, namely:
Zone 2: High control zone within the urban development zone
Zone 3: High control zone outside of the urban development zone
Zone 4: Normal control zone

Please note that on 13 April 2017, a Notice of Intention to Adopt Gauteng

Provincial Environmental Management Framework (GPEMF) Standards and Exclusions of Activities was published for comments in Notice No. 351.

Implications for the Project:

The proposed site is situated within Zone 1 of the GPEMF. Listing Notice 3 Activities are also triggered by the proposed filling station hence it does not qualify for an exclusion registration and thus the Basic Assessment Application must be submitted.

The proposed study site is surrounded by urban development and therefore, we are of the opinion that the proposed development will be in line with the GPEMF and other urban development/townships planned for the surrounding areas. ***Refer to Figure 12 for the GPEMF Map***

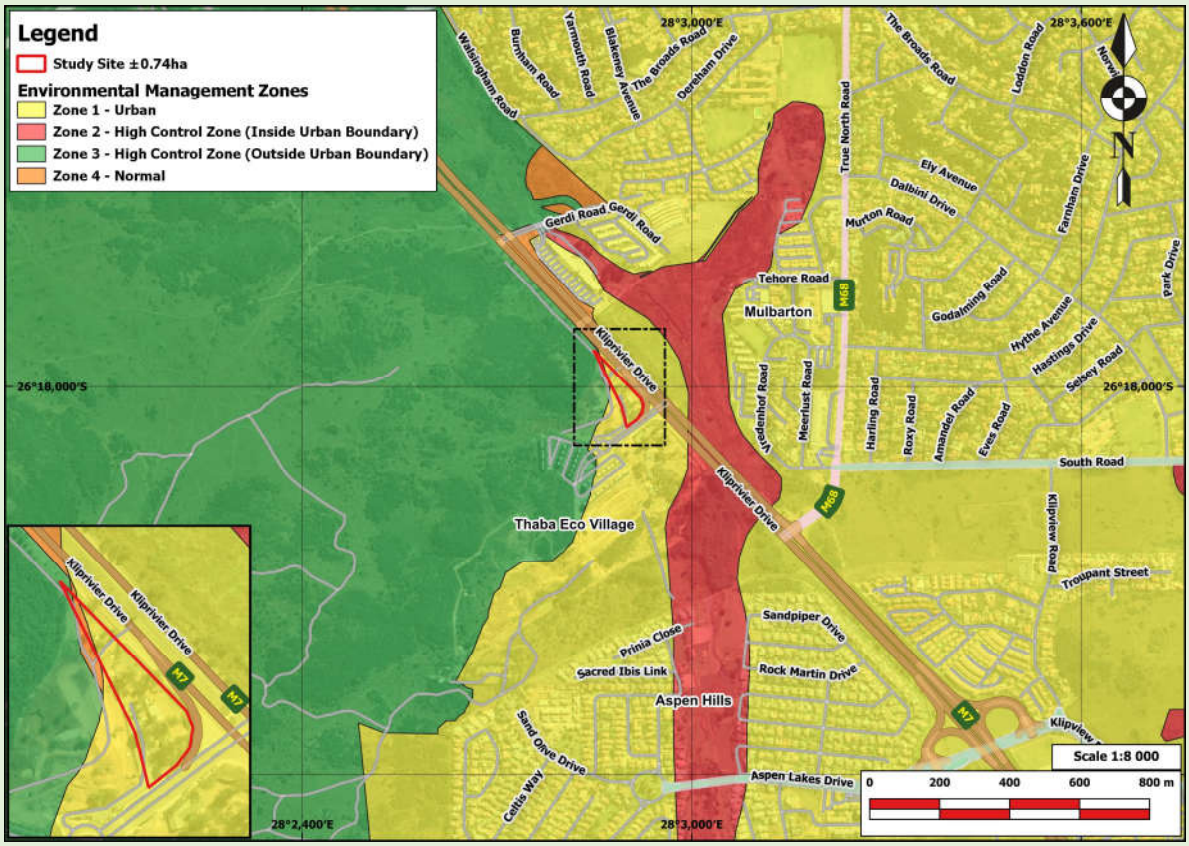

Figure 12: Gauteng Provincial Environmental Management Framework (GPEMF)

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

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended) [NEMA]	The application for the proposed filling station triggers activities listed under Listing Notice R. 983 (Listing Notice 1) and Listing Notice R. 985 (Listing Notice 3) (as amended) and therefore a Basic Assessment Report will be submitted to the GDARD for consideration.
National Water Act, 1998 (Act No. 36 of 1998, as amended)	The site is located within 500m of a watercourse which is regarded as a regulated area. The proposed development site falls within the Thaba Eco Village site boundary which already has an existing Water Use License (10/C22D/CI/5072).
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)	According to the Gauteng Agricultural Potential Atlas (GAPA 3), the proposed filling station is situated on land with high agricultural potential. However, the study site is regarded as fragmented and too small to function as a viable agricultural unit. The area surrounding the proposed development is also developed and not regarded as suitable for large scale agricultural activities.
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	A motivation for Exemption from a Full Phase 1 HIA was conducted and submitted to SAHRA. The study area was already subject to various heritage assessments when the EIA process was followed for the larger Thaba Development. Such assessments confirmed that the study area is not affected by cultural and historical features. The former cultural and historical studies identified some significant archaeological and historical in the larger geographical area and this needs to be taken into consideration during any future actions related to the proposed development. The subterranean nature of cultural heritage (archaeological and/or historical) resources must always be kept in mind. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward. This could include previously unknown and unmarked graves.

National Environmental Management: Waste Act, 2009 (Act No. 59 of 2009, as amended) [NEM:WA]	No listed waste management activities will take place on site and therefore a waste licence will not be required. Construction and operational phase waste will be removed on a regular basis and disposed of at a registered landfill site. Take note that landfill sites in South-Africa are no longer (since the end of 2019) allowed to receive liquid waste.
National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003), as amended	The proposed filling station does not form part of a protected area and it does not occur near a protected area. The proclaimed Klipriviersberg Nature Reserve is located approximately 2,8km to the west of the study area.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004, as amended) [NEM:BA]	According to published threatened ecosystems data, the site is situated within an ecosystem that is regarded as a Threatened Ecosystem, namely the "Klipriver Highveld Grassland" and it is regarded as Critical Endangered. However, the vegetation on site is no longer characteristics of the Klipriver Highveld Grassland ecosystem thus no negative impacts are anticipated.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	During the construction phase of the proposed filling station, generation of dust could become a factor to surrounding land owners, but this will be over short distances and a very short period of time. However, if the development is well planned and the mitigating measures are successfully implemented as per the Environmental Management Programme Report (EMPr), the proposed filling station construction's contribution to air pollution can be prevented and/or mitigated to more acceptable levels.
Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001, as amended)	This provincial act must be taken into consideration when planning for infrastructure and development. In cases where provincial and national roads, their road reserves and associated infrastructure (i.e. culverts) are affected, the competent authority namely the Gauteng Department of Roads and Transport (GDRT) – (and SANRAL where national roads are involved) must be notified of the proposed

	development. In some cases GDRT must supply **wayleaves** prior to commencing with construction activities underneath, across, adjacent to and on existing provincial/ national roads or planned provincial or national roads. In this specific case Klipriver Road is involved). The project engineers need to supply confirmation of the road authority's support for the proposed filling station. According to the traffic inputs supplied for the filling station, some upgrades are required on Klipriviers Drive/ Road K85 to accommodate the proposed access to Erf 489. GDRT and SANRAL is invited to comment on the contents of this BAR. Issues raised by GDRT and SANRAL will be addressed in collaboration with the appointed traffic and civil engineers.
Occupational Health & Safety Act, 1993 (Act No. 85 of 1993) and Occupational Health & Safety Amendment Act (Act No. 181 of 1993)	This Act regulates all health and safety aspects during the construction and operational phases of the development and must be taken into consideration for all employees and the public. The COVID-19 special health and safety precautionary measures for development must be taken into consideration and the consultants, specialists, project managers, developer and the involved contractors must allow for the implementation of precautionary measures during all the planning and construction phases in their project tenders and budgeting processes.
The Ridges Guideline (GDARD)	The Filling station Erf is not affected by a ridge. A class 2 Ridge is located to the immediate west of the study area and it will be necessary to consider he ridge when doing planning for the filling station. The plant species to be used in the manicured gardens for the filling station must be indigenous and preferably endemic.
Gauteng Conservation Plan (C-Plan) Version 3.3	Even though the GDARD C-Plan maps excludes the filling station Erf from its Ecological support Area listing/ delineation, the Erf is almost surrounded by Ecological support areas. The plant species to be used in the manicured gardens for the filling station must be indigenous and

	preferably endemic. In addition, ground water and surface water pollution must be avoided during all the development phases (construction, operational and decommissioning)
GDARD Agricultural Hub Policy	The study area does not fall within any of the seven Agriculture Hubs identified for the Gauteng Province. All hubs are situated a distance away from the study area. According to the GPEMF that study area is located within Zone 1, which is regarded as an urban development zone. As mentioned, GDARD already approved development across the filling station erf.
Gauteng Draft Red Data Policy	Gauteng C-Plan data indicates that the development site has no potential habitat for Red Listed plant species or Orange Listed Plant Species. More than a kilometre from the site there is habitat for red and orange listed plant species and thus a fauna and flora assessment was conducted to verify the species present. No Red-Listed plant species have been recorded on the study site during the ecological survey. As mentioned, GDARD already approved development across the filling station erf. Construction for the existing zoning already commenced (i.e. some site clearance already took place).
Gauteng Noise Control Regulations	If well planned and if mitigation measures are successfully implemented, the proposed development will not contribute to significant noise generation in the area. The noise impacts will mainly be during the construction phase and is will therefore only be short term of nature. One should note that there are not many practical mitigation measures for noise pollution, but certain measures can be implemented to mitigate the severity.

	The noise limits for construction activities (as set out in the applicable legislation) must be adhered to at all times.
City of Johannesburg Spatial Development Framework (SDF), 2016-2040	The proposed development is in line with the development principles of the Spatial Development Frameworks for Gauteng and the CoJMM.
Gauteng Provincial Environmental Management Framework (GPEMF), 2014	The entire study area is located within Zone 1 of the GPEMF, which is earmarked for urban development. The proposed filling station development is in line witht he GPEMF, but due to the fact that the filling will not be developed in an industrial area, it is not possible to apply for an Exclusion Registration in terms of the GPEMF.

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

Layout Alternatives

The size of the study area and the locality of the filling station access were the main factors which guided the layout for the proposed facility. Various layout alternatives were considered, but the layout as included as part of this application is regarded as the only "workable" layout.

(Refer to Figure 13 below).

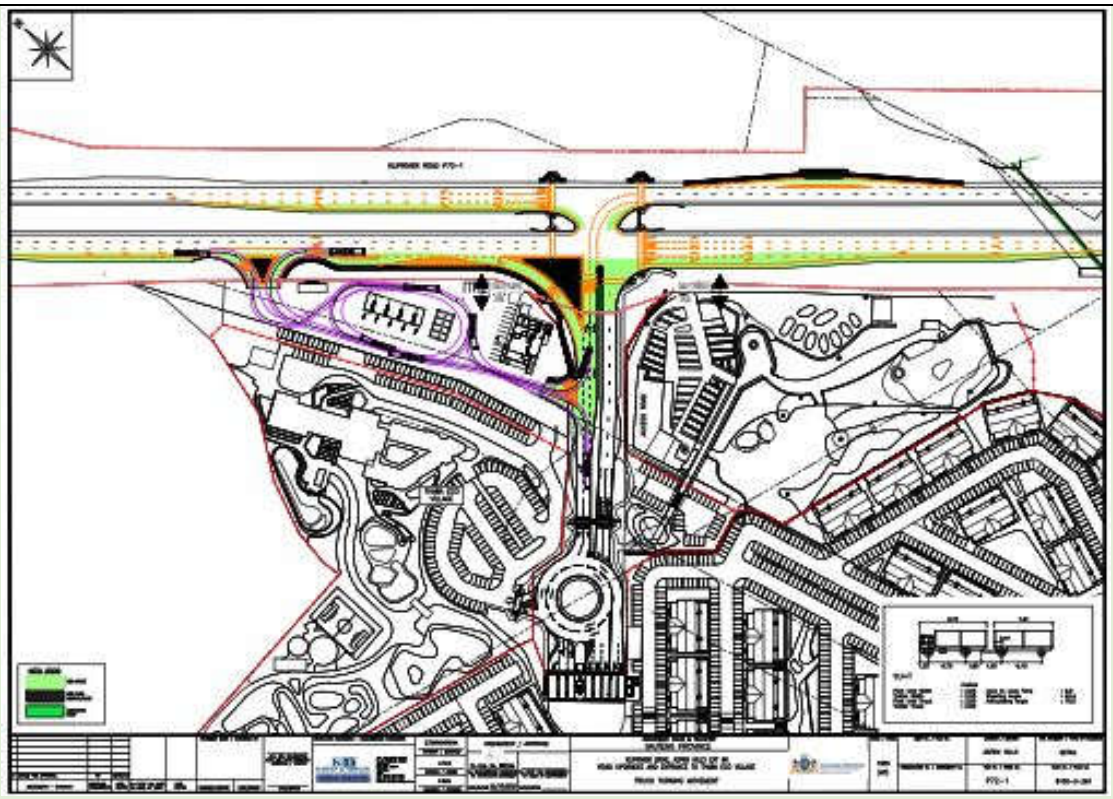

Figure 13: Proposed layout plan

Land-use Alternatives:

The land already received a "business" zoning and GDARD already issued an EA for the development on the study area. The original land-use as approved for the study area was not regarded as the most feasible land-use option for a site, which is very strategically located on a corner, especially if one considers the remainder of the Aspen Hills x 6 development, which is currently being implemented.

The No-Go Alternative:

GDARD already approved a development across the entire study area and therefore the "no-go" alternative is not regarded as an option.

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**
	No alternatives considered	

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

No other properties were investigated for the proposed development. The consideration of locality alternatives was not regarded as an option as the applicant owns the study site and the filling station viability study conducted for the proposed filling station confirmed that the proposed facility will be viable.

Figure 13: Proposed Layout (See Appendix A for enlarged figures)

4. Physical size of the activity

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

	Size of the activity:
Proposed activity ***(Total environmental (landscaping, parking, etc.) and the building footprint)***	**±1Ha** Size of development area is ±7510m², but we also allowed some additional space, away from the ridge (towards the north, east and south) for road upgrades and other associated infrastructure)
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	Ha/ m²

or, for linear activities:

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

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

	Size of the site/servitude:
Proposed activity	**±1Ha** Size of development area is ±7510m², but we also allowed some additional space, away from the ridge (towards the north, east and south) for road upgrades and other associated infrastructure).
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	Ha/m²

5. Site Access

Proposal

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

Kantey & Templer Consulting Engineers conducted a Traffic Impact Assessment (TIA). ***Refer to Appendix F4 for the TIA conducted for the Larger Thaba Development and Refer to Appendix F5 for Fuel Viability Study (Refer to Page 11 of the study for more detailed information regarding the access and circulation)***

The study area is located in the north-western corner of the intersection between Kliprivier Drive and the Access Road to the Thaba Eco Village Development.

The Access Road to the larger Thaba Eco Village development site, runs along the southern boundary of the filling station site. This access road is classified as a Class 4 Road.

The busy Route K85, which is a Class 2 Road runs along the north-eastern boundary of the study area. Route K85, which follows the alignment of Kliprivier Drive (Road P72-1), has already been proclaimed and constructed to be a four-lane dual carriageway.

Access:
Two access points are proposed for the filling station.

Marginal access to the site is planned from Kliprivier Drive in a northbound direction, at a spacing of ±145m from the Thabe Eco Village Access Road.

Another marginal access is planned form the Thaba Eco Village Access Road in an eastbound direction, at spacing of ±75m from Kliprivier Drive.

GDRT already supplied an "in principal approval" for the proposed filling station positioned along Kliprivier Drive. ***Refer to Appendix A of the Fuel Viability Study attached to this report as Appendix F5 for letter received from GDRT also refer to Figure 14 inserted below for detail regarding the planned accesses to the study area***

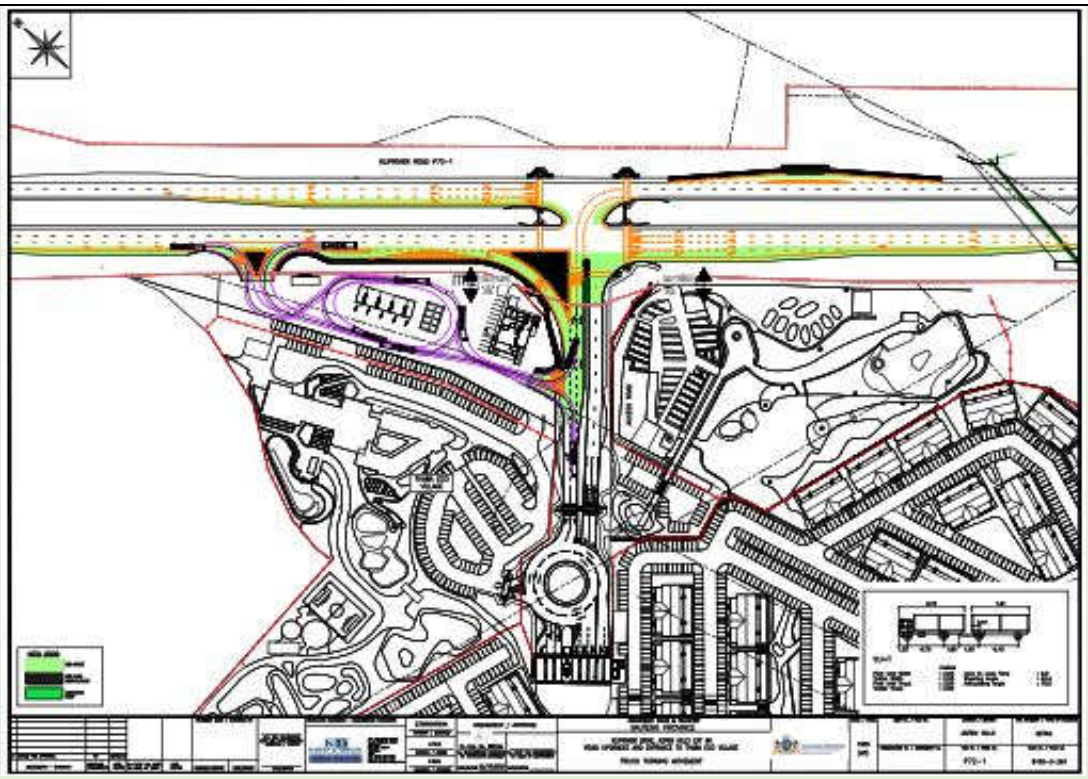

Figure 14: Access Layout Plan

Refer to Appendix C for the concept Site Development Plan

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.

Refer Appendix A

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.

Refer Appendix B

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.

Refer Appendix C

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

Instructions for completion of Section B for linear activities

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

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

Instructions for completion of Section B for location/route alternatives

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

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

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

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

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

Section B - Section of Route | | (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.)	The proposed filling station is situated on Erf 489 of Aspen Hills Extension 6 in the City of Johannesburg Metropolitan Municipality, Gauteng Province.

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°18'1.04"S	28° 02'54.64"E

In the case of linear activities:

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

- End point of the activity

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

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	I	R	0	9	7	1	0	0	0	0	0	4	8	9	0	0	0	0	0	
ALT. 1																						
ALT. 2																						
etc.																						

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
X						

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

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

The study area is underlain by lava of the Klipriviersberg Group (ventersdorp supergroup). Residual soils have developed from the weathering of the lava bedrock over portions of the larger Thaba Eco Village study area.

The dominant soil form on the study area is Shortlands (Sd). The soils are mostly shallow (200mm -500mm deep) on rock. There is a possibility for the occurrence of yellow-brown to dark brown, structured clay soils of the Swartlands (Sw), Bonheim (Bo) and Valsrivier (Va).

Implications for the Filling Station:

- The possible expansiveness of the soils must be taken into consideration when installing the underground tanks (the tanks and installation must be planned to prevent leakages in the tanks as a result of the shrinking and expansion of the soils);

- The shallow nature of the soils could create problems when excavating for the underground tanks. Blasting or the usage of mechanical equipment could be required.

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

Shallow water table (less than 1.5m deep)	YES	**NO X**
Dolomite, sinkhole or doline areas	YES	**NO X**
Seasonally wet soils (often close to water bodies)	YES	**NO X**
Unstable rocky slopes or steep slopes with loose soil	YES	**NO X**
Dispersive soils (soils that dissolve in water)	YES	**NO X**
Soils with high clay content (clay fraction more than 40%)	**YES** X There is a possibility	NO
Any other unstable soil or geological feature	YES	**NO X**
An area sensitive to erosion	**YES X**	NO

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

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

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 X	NO

According to Gauteng Agricultural Potential Atlas (GAPA) the proposed development site has high agricultural potential.

The study area is however not earmarked for agriculture:

-GDARD already approved development across the study area;

-The study area does not fall within any of the 7 agricultural hubs identified by GDARD ; and

- GDARD earmarked the study area for urban development in the GPEMF.

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 % = **40**	Veld dominated by alien species % = **20**	Landscaped (vegetation) % =**10**
Sport field % = o	Cultivated land % = 0	Paved surface (hard landscaping) % = 0	Building or other structure % = **15**	Bare soil % = **15**

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** No rare or endangered species were present on the site during the surveys. GDARD already issued an EA for a development, which includes the study area.

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:

FAUNA AND FLORA

The GDARD C-Plan confirms that the study area is not regarded as an ecological support area and the Bokamoso fauna and flora specialist confirmed in 2020 that the study area is disturbed and that it was not regarded as suitable habitat for red data species.

As mentioned, the study area earmarked for the filling station forms part of a larger mixed-use development site, which already received an EA from GDARD. The development is now referred to as the Thaba Eco Village development and construction already commenced on the larger study area (this includes the study area). A "Business 3" zoning is currently approved on the study area.

The study area is however located adjacent to a Class 2 ridge and it is therefore important to use indigenous and preferably endemic vegetation in the landscaping areas around the filling station.

Refer to Appendix F3 for the Fauna and Flora Report.

Was a specialist consulted to assist with completing this section	**YES X**	NO

If yes complete specialist details

Name of the specialist:	Nkoliso Magona		
Qualification(s) of the specialist:	MSc (Botany)		
Postal address:	P.O Box 11375 Maroelana		
Postal code:	0161		
Telephone:	012 346 3810	Cell:	-
E-mail:	reception@bokamoso.net	Fax:	086 570 5659

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

The Terrestrial Biodiversity Assessment Survey is attached as ***Appendix F3***

Signature of specialist: Refer to specialist report Date: April 2020

Take note: The specialist report were reviewed and certified by a suitably qualified external specialist in order to ensure the independence of the report.

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 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)**
26. Sewage treatment plant A	27. Landfill or waste treatment site A	28. Historical building	29. Graveyard	30. Archaeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam A	34. Small Holdings	35. Gravel Road
36. Other land uses (Watercourse):	**37. Future Development**		38. Future Road Servitude	

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

5	5	2	9	9
5	5	1	2	9
5	5	25	1	2
5	5	25	25	2
5	5	SITE	25	25
5	37		37	2
1	37	37	37	2
1	37	37	37	2
1	37	37	1	9
37	37	1	9	9

WEST **EAST**

SOUTH

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

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

Have specialist reports been attached	YES	NO
If yes indicate the type of reports below		

Appendix F1 – Town Planning Memo Report
Appendix F2– Exemption from Phase 1 HIA Report
Appendix F3 – Terrestrial Biodiversity Assessment Report
Appendix F4 – TIA Report
Appendix F5 – Fuel viability Report
Appendix F6 – Services Report
Appendix F7 – Stormwater Management Report

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.

NEED FOR FILLING STATION DEVELOPMENT

As previously mentioned, the applicant wishes to develop a Filling Station, ATM, Car Wash and Convenient store on the study area.

The study area is located in a proclaimed township and the Johannesburg Spatial Development Framework for 2040 regards the study area as located within the Urban Development Boundary.

The GPEMF (Figure 12 inserted above) indicates that the study area is located within Zone 1, which is earmarked for urban development by GDARD and Zone 1 is regarded as suitable for a filling station.

According to the fuel Viability Report compiled by Techworld Consulting Engineers the viability did study did not even take the potential fuels sales to be generated by the planned development (the Thaba Eco Village Development) that will be served by the current Thaba Access Road, into consideration.

The Fuel viability study selected two existing filling stations along Kliprivier Drive (Shell and Caltex) as benchmark sites for the proposed new site. Traffic and fuel related surveys were done at the benchmark sites to estimate the market area specific fuel parameters and monthly fuel sales.

Based on the survey, the average fuel sales of the proposed new filling station are estimated to be approximately 492,150 litres/month in the opening year 2024. According to the specialist a 10% margin of error applies based on the

quality and extent of available data and fuel sales that range between approximately 442, 950 litres/ month (pessimistic scenario) and approximately 541,350litres/month (optimistic scenario) can be expected.

A conservative growth rate of approximately 2% p.a. in background traffic was used to calculate the viability of the proposed new facility. Also take note that the study excluded latent land-use rights and this adds to the conservative approach from a viability point of view.

A filling station is usually regarded as viable if the estimated pump figures are above 300,000litres/ month and it can thus be concluded that the proposed new filling station is viable form a financial point of view.

There are only two existing filling stations, including one of the benchmark filling stations, within a 3 km radius of the study area. It is expected that the proposed new filling station will capture an average of 13,5% of the total monthly fuel sales of the existing sites in the area, which will not jeopardise the viability of these sites, given their existing fuel sales.

The proposed new filling station will serve in the needs of the local market (i.e. the Thaba Eco Village) and it will serve in the transient market along Kliprivier Drive.

The proposed filling station is not expected to reduce the fuel sales of any existing filling station in the market area significantly, i.e. to a level that will make such filling stations unviable, given their fuel sales and overlapping traffic markets.

The applicant for the filling station, namely Balwin is adding a large number of residential units to the Aspen Hills x 6 site. The filling station is located at the access of the Thaba Eco Village Development.

The proposed filling station development is regarded as infill development and the filling station *per se* will not generate traffic. Traffic in the area will make use of the filling station.

The proposed new filling station will create temporary jobs during the construction phase and it will create permanent jobs during the operational phase.

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**

If YES, explain:

NA

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:

A motivation for Exemption from a Full Phase 1 HIA was conducted and submitted to SAHRA. **Refer to** *Appendix F2* **for this document.**

Thorough surveys of the larger Aspen Hills x 6 study area, including the proposed filling station site, have already been conducted and the heritage specialists identified some cultural and historical features that need to be conserved as well as features that could be removed with the necessary permits from the relevant heritage authorities.

None of the cultural and historical features that need to be protected or demolished are located on the filling station site.

Will any building or structure older than 60 years be affected in any way?	YES	**NO X**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	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.

In terms of the Guideline Document for Environmental Impact Assessment (EIA) Regulations promulgated in terms of NEMA, as amended, stakeholders (I&APs) were notified of the Environmental Evaluation Process as follows:

- Site notices were erected (at prominent points on and around the study area); (5 October 2022)
- Land owners and occupiers were notified via hand delivered notices as well as email communication; (5 October 2022)
- Notices regarding the project were further e-mailed, faxed and sent via registered mail to a list of interested and affected parties that registered for the project; (6 October2022)
- A list of all persons, organizations and organs of state that were registered as interested and affected parties in relation to the application is attached as Proof of Advertisement;
- An advertisement was placed in The Star Newspaper;
- SAHRA was informed of the proposed infrastructure;
- The following institutions and organs of state were also identified as I & AP's and added to the register of the I & AP's:
  - City of Johannesburg Metropolitan Municipality;
  - City Power;
  - Johannesburg Water;
  - Department of Agriculture, Forestry and Fisheries(DAFF)
  - Department of Land Claims – Rural Development;
  - Department of Water and Sanitation (DWS)
  - Rand Water;
  - Council of Geoscience;
  - Department of Mineral Resources and Energy (DMRE);
  - South African Heritage Resources Agency (SAHRA);
  - Provincial Heritage Resources Agency - Gauteng (PHRAG);
  - Telkom;
  - Eskom;
  - Transnet;
  - SANRAL;
  - SANBI;
  - Gauteng Department of Roads and Transport (GDRT);
  - Gautrain;
  - Ward Councillor (Ward 23)
  - Bombela Maintenance
  - The Star Newspaper

This Basic Assessment Report will be made available for 30-day review period to the Stakeholders and the I&AP's.

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** This is the 1st version of the BAR document compiled for comment purposes
If yes, has any comments been received from the local authority?	YES	**NO** **X**

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

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

It is requested that the local authority supply comments regarding this BAR. The comments will be addressed in a comments and response report to be attached as Appendix to the final BAR. A 30-day period Is allowed for comment.

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	**NO** **X** All comments received will be included in the final BAR.

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

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

This report represents the 1st version of the BAR for comment. Comments regarding the proposed filling station can be forwarded to Bokamoso during the 30-day review and such comments will be addressed in a final Comments and Response Report. If the comments that were raised require significant changes to the BAR that was made available, the BAR will be amended and the amended report will again be made available for comment, prior to submitting it to the competent authority for a decision.

It is therefore requested that all I&APs, stakeholders and organs of state peruse this BAR and supply comments, in writing, within the 30-day timeframe as determined by the applicable legislation.

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 D: Public Participation information
Appendix D1: Proof of site notice
Appendix D2: Written notices issued
Appendix D3: Proof of newspaper advert
Appendix D4: Communication to and from I&APs
Appendix D5: Comments and Response report
Appendix D6: I&AP Register

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

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

Section D Alternative No. | "insert alternative number" | (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Refer to Appendix F6 for Outline Scheme Report Prepared for the Thaba Eco Village Development which included the study area and Refer to Appendix F7 for the Stormwater Management Report

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES X**	NO
If yes, what estimated quantity will be produced per month?	**±200m³**	
How will the construction solid waste be disposed of (describe)?		

During construction the disposal of solid waste will be the responsibility of the main contractor appointed by the developer.

An area at the site camp will be earmarked for temporary dumping of solid waste during the construction phase. The demarcated area must be easily accessible for waste trucks. The waste, including building rubble, must be disposed of at a registered landfill site. The waste contractor must supply the main contractor with waste manifests for the waste collected and disposed of on a weekly basis.

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

All solid waste resulting from construction activities will be disposed of at a registered landfill site. No solid waste will be dumped on open or adjacent properties.

If the contractor/waste contractor wishes to re-use some of the waste (i.e. rocks) for construction purposes on the site or elsewhere, the matter must be discussed with the Environmental Control Officer (ECO) and the ECO must confirm whether it will be possible to re-use the waste elsewhere.

Will the activity produce solid waste during its operational phase?

YES **X**	NO

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

±15m^3

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

During the operational phase, all disposal of solid waste will be the responsibility of the Local Authority.

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 **X** The filling station development will take place on a site which already has development rights. The local authority confirmed	NO

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

The filling station will make use of municipal waste removal services. If municipal waste removal services are not available, the operator will enter into a waste removal agreement with an accredited waste removal company. The waste will be disposed-off at a registered landfill site and it will be requested that the waste removal contractor provide the operator with the relevant waste manifests for record keeping purposes.

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**

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:

It is proposed that all construction waste materials be sorted into recyclable and non-recyclable materials. The recyclable materials should be re-used wherever possible or collected and recycled by a reputable recycling company.

Take note that landfill sites are no longer allowed to receive liquid waste. This restriction came into effect on 23 August 2019. It will thus also be necessary to consider this aspect during the construction and operational phase, especially with reference to solvents and oil related waste.

This aspect has been incorporated as part of the EMPr for the development. It is also recommended that the filling station operator compile a waste management plan for the new facility in order to ensure that the facility operates in line with all the applicable waste legislation.

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

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

The Stormwater Management Report compiled by Kantey & Templer for a larger area, which includes Erf 489 (the proposed Filling Station Site) proposed a 200m^3 Stormwater Attenuation Pond in the south-east corner of the site. Refer to ***Annexure F7.1***

Johannesburg Water supplied a written response to the Stormwater Management Report, dated 20 May 2022. Refer to ***Annexure F7.2***

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?	**± 30 kl/day ± 900 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

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:

Take note that landfill sites are no longer allowed to receive liquid waste. This restriction came into effect on 23 August 2019. It will thus also be necessary to consider this aspect during the construction and operational phase, especially with reference to solvents and oil related waste.

This aspect has been incorporated as part of the EMPr for the development. It is also recommended that the filling station operator compile a waste management plan for the new facility in order to ensure that the facility operates in line with all the applicable waste legislation.

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

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?	YES	NO
		X

If yes, list the permits required

DWS already issued a S21WUL and a GA for the implementation of the Aspen Hills x 6 development and the filling station is located within Aspen Hills x6. No Section 21 (a) water-use application is 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

Municipal - City Power Johannesburg

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:

The applicant should consider the following measures in terms of energy efficiency:

- Buildings can be orientated in a northerly direction for maximum sunlight;
- Where possible, energy saving light bulbs must be used;
- Time switches for outdoor lighting;
- Geysers must be fitted with insulation blankets; and
- Solar panels can be used as alternative/ back-up power source.

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

It is recommended that solar power be incorporated as part of the building/ car port designs in order to cater for load shedding and to supplement municipal electricity supply.

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.

This is the first version of the BAR and is now made available for review purposes.

All comments received on the application to date have been incorporated into the Comments and Response Report forming part of the attached Public Participation report. ***(Refer to Appendix D)***

All the comments received by the I&APs after the 30-day comment period will be captured and addressed in an updated Comments and Response Report. If required, the BAR will be updated to incorporate/address the comments as received by the I&APs and organs of state.

If the changes to the BAR are significant such changes will be made available to the relevant I&APs prior to the submission of the finalised BAR to GDARD.

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):

All the basic comments already received regarding the application have been incorporated into the Comments and Response Report forming part of the attached 1st version Comments and Response Report ***(Refer to Appendix D).***

The detailed comments received regarding this Basic Assessment Report will added to the comment and response report and it will be addressed by Bokamoso and the relevant specialists responsible for the filling station application. The Updated Comments and Response Report will be added as an Annexure of the BAR. In cases where required as necessary, the BAR will be updated to address important aspects as raised by authorities and I&APs.

If the comments as raised by I&APs, stakeholders and organs of state require significant amendments to the application, such amendments will be incorporated as part of an amended BA Report to be made available for a 2nd round (also for a 30-day period) before submitting the BAR to the competent authority.

If only minor amendment are required (amendments that are not regarded as substantial) the amendments will be addressed in the BAR to be submitted to the competent authority for consideration. If regarded as necessary, the EAP will supply the I&APs with an updated comments and response report, which lists the amendments before submitting the BAR to GDARD.

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

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

Significance Description Methodology

The significance of Environmental Impacts was assessed in accordance with the following method:

Significance is the product of probability and severity. Probability describes the likelihood of the impact actually occurring, and is rated as follows:

Likelihood	Description	Rating
Improbable	Low possibility of impact to occur either because of design or historic experience	2
Probable	Distinct possibility that impact will occur	3
Highly probable	Most likely that impact will occur	4
Definite	Impact will occur, in the case of adverse impacts regardless of any prevention measures	5

The severity factor is calculated from the factors given to "intensity" and "duration". Intensity and duration factors are awarded to each impact, as described below.

The Intensity factor is awarded to each impact according to the following method:

Intensity	Description	Rating
Low intensity	Natural and man-made functions not affected.	1
Medium intensity	Environment affected but natural and man-made functions and processes continue.	2
High intensity	Environment affected to the extent that natural or man-made functions are altered to the extent that it will temporarily or permanently cease or become dysfunctional.	4

Duration is assessed and a factor awarded in accordance with the following:

Duration	Description	Rating
Short term	<1 to 5 years - Factor 2	2
Medium term	5 to 15 years - Factor 3	3
Long term	Impact will only cease after the operational life of the activity, either because of natural process or by human intervention.	4
Permanent	Mitigation, either by natural process or by human intervention, will not way or in such a time span that the impact can be considered transient.	4

The severity rating is obtained from calculating a severity factor, and comparing the severity factor to the rating in the table below. For example:

The Severity factor = Intensity factor X Duration factor
= 2 x 3
= 6

A Severity factor of six (6) equals a Severity Rating of Medium severity (Rating 3) as per table below:

Severity Factor	Severity	Rating
Calculated values 2 to 4	Low Severity	2
Calculated values 5 to 8	Medium Severity	3

Calculated values 9 to 12	High Severity	4
Calculated values 13 to 16	Very High severity	5

A Significance Rating is calculated by multiplying the Severity Rating with the Probability Rating.

Significance	Rating	Influence
Low significance	Rating 4 to 6	Positive impact and negative impacts of low significance should have no influence on the proposed development project.
Medium significance	Rating >6 to 15	Positive impact: Should weigh towards a decision to continue Negative impact: Should be mitigated to a level where the impact would be of medium significance before project can be approved.
High significance	Rating 16 and more	Positive impact: Should weigh towards a decision to continue, should be enhanced in final design. Negative impact: Should weigh towards a decision to terminate proposal, or mitigation should be performed to reduce significance to at least medium significance rating.

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

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
PLANNING AND DESIGN PHASE									
Bio-Physical									
Geotechnical and Soils	Direct and indirect	Shallow Soils	No	Negative	Moderate	Moderate	• Paved areas to be impermeable in forecourt areas • Geotechnical engineer to be appointed for the construction phase. • Design structures and procure construction materials in accordance with the recommendations made by the engineer. • Take expansiveness of soils into consideration when determining tank positions and tank designs. • Water- and sewage pipes entering the buildings should be fitted with flexible couplings in order to accommodate relative movement that could be caused by the active soils. • All stormwater, sewage and water pipes and channels must be water tight. • Confirm whether blasting	High for all anticipated impacts	**Low**
		Expansive soils	Possible	Negative	Moderate - High	High			
		Erodible soils	Yes	Negative	Moderate	Moderate			

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							will be required for the installation of the underground tanks.		
Topography	Direct	Erosion and siltation caused by concentrated flow from higher lying areas	Yes	Negative	High	High	• Layout to take topography into consideration. • Stormwater Management Report to be compiled and approved by JRA.	High for all anticipated impacts	**Low**
Hydrology	Direct and Indirect	Erosion and siltation on the study area can cause surface water pollution in the Kliiprivier	Yes	Negative	Medium	Medium	• Plan for the implementation of temporary storm water management measures during the construction phase to prevent erosion and siltation. • Also allow for permanent storm water management measures during the operational phase. • Allow for the implementation of monitoring boreholes that will be suitable for the talking of soil samples and water samples upstream and downstream from the services areas and the underground fuel tanks. • Take the necessary SANS standards for filling station tanks, bunded areas, designs etc. into consideration. • Allow for on-going leak and leachate detection measures in designs i.e. pressure tests at fuel pumps. • Take the contaminated	High for all the anticipated impacts	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							land provisions as set out in the National Environmental Management: Waste Act into consideration – will be referred to in cases of pollution, when decommissioning of the filling station takes place or when thinking of selling the facility (banks often require confirmation that there is no pollution). • If possible identify areas for tanks (preferably areas where the water table is the lowest) before finalising the layout for the facility. • Paved areas to be impermeable. • Plan for the installation of oil traps, grease traps and implement effluent treatment pits before discharging dirty water into municipal system. • Confirm water discharge standards with the local authority. • Prevent the mixing of cleaning/process water with storm water and roof water. • The Filling station must be designed in accordance to the Best Practise Guidelines for the installation of a filling station by the Oil and Gas industry, and all specifications need to be		

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							adhered to. • Vacusonic testing on the tank integrity needs to be done regularly. • Housekeeping and regular inspections for the site should be carried out. • Regular on-site inspections of surface water drains, and the tank observation boreholes should be conducted on a weekly basis.		
Socio-Economic									
Financial	Direct and indirect	No financial provision for rehabilitation. Must be included as part of the EMPr.	Yes	Negative	High	Medium	• Make provision for rehabilitation and emergency incidents prior to construction. • Peruse all the mitigation measures as supplied by all the specialists and ensure that there is sufficient funds available to apply the required mitigation measures	High	**Low**
	Direct	Job creation	No	Positive	High	High	• Where possible, nearby residents should be provided with employment opportunities for the construction and operational phases of the development.	High	**High**
Cultural/ historical	Direct	Heritage discovery potential	No	Negative	Low	Low	• In terms of heritage associated with the project, no sites of heritage or cultural significance were found on site.	Low	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							• Should the workers discover any subsurface archaeological/ historical material, work should cease and the contractor to report to the Environmental Compliance Officer (ECO).		
Road upgrades and construction	Direct	Upgrades not approved by the relevant authorities	Yes	Negative	High	Low	• Road upgrades for the development must be discussed and approved by CoJMM and before commencement of construction.	High	**None**
	Direct and Indirect	Impacts on provincial and local roads and on adjacent properties	Yes	Negative	Medium	Medium	• Arrange in advance for the necessary approvals from the various authorities to work within servitudes, road reserves, to disrupt traffic, to disrupt services such as water provisions, electricity supply, sewer reticulation etc. • Identify surrounding properties that could potentially be affected by the upgrades and prepare notices to distribute to such affected parties before the disruption occurs. • Plan appropriate signage and diversion to minimise traffic congestion that could occur due to the upgrades.	High	**Low**
Services installation and connection	Direct and Indirect	Disruption of services for surrounding	No	Negative	High	Medium	• Even though services will be required within the development itself, it is	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
		residents					important that construction phase planning consider the potential impacts of the connection of the installed services on the surrounding properties. • Identify surrounding properties that could potentially be affected by the upgrades and prepare notices to distribute to such affected parties before the disruption occurs.		
Qualitative Environment	Direct and indirect	Dust pollution	No	Negative	High	High	• Regular and effective damping down of working areas (especially during the dry and windy periods) must be carried out to avoid dust pollution that will have a negative impact on the surrounding residents. • Ensure covers are available for stockpiles containing loose materials that can blow away.	Medium	**Low**
	Direct	Noise pollution	No	Negative	High	Medium	• Require that construction equipment be furnished with noise muffing devices. Supply working hours and rules regarding persons allowed to stay on site, and noise during the construction phase.	Medium	**Low**
	Direct and indirect	Visual Pollution	Yes	Negative	High	Medium	• Plan building styles to compliment the surrounding developments and sense of place. • Prior to construction	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							commencing on the site, an area on site must be demarcated for a site camp. • Locations of stockpiles (building rubble, soils, building materials) to be determined to ensure that minimal visual impact will be experienced by residents in the area. • All contractors and sub-contractors must comply with Part F: Site Operations of the National Building Regulations- ***attached hereto to the EMPr in Appendix G).*** • Plan signage around the site to be visible during the day and night in such a way that it complies with the standards of the local authority, the relevant roads authorities and SAMOAC standards. • Signage must be designed to cause minimum distraction of vehicles passing by and should not reflect into the windows of residential buildings. • Confirm signage application requirements with the relevant local authority, district municipality and provincial road authority as required.		

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
	Direct and Indirect	Soil pollution	Yes	Negative	Medium	Medium	• Make provision for drip trays under all vehicles, and mixing trays for cement. • Plan secure location for storage of hazardous materials that can cause pollution. • A bermed area to be used for vehicle repairs and maintenance.	High	**Low**
	Indirect	Construction after hours and during weekends and public holidays	No	Negative	Medium	Low	• All construction activities must be restricted to normal working hours from 8:00 in the morning to no later than 18:00 in the afternoons. No construction may take place on Sundays and public holidays.	High	**Low**
	Direct and indirect	Waste management	Yes	Negative	High	Low	• Confirm with the local authority that builder's waste can be dumped at the local landfill and that operational waste can be removed by the local authority.	High	**Low**
Health and Safety	Direct and Indirect	Impacts on the health and safety of the surrounding environment during the construction and operational phase, as well as for construction workers	Possible	Negative	High	High	• Make provision for the appointment of a suitably qualified health and safety officer to assist with compliance with the relevant health and safety legislation during all the development phases.	High	**Low**
Institutional									

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Compliance with the relevant local authority by-laws and policies	Direct	Compliance with the relevant local authority by-laws and policies	Yes	Negative	Medium to High	Medium	• Local authorities have specific requirements for storm water management, emergency procedures, construction works that affect roads and access, road safety conditions, temporary disruption of services, air emissions, waste management, outdoor advertising, water services, health and safety, etc. • Confirm that the proposed development will comply with the relevant local authority and district municipality by-laws and policies.	High	**Low**
Rates and taxes	Direct	Increased income for the district municipality	Yes	Positive	High	High	• Increased payment of rates and taxes for the district municipality.	N/A	**N/A**
CONSTRUCTION PHASE									
Bio-Physical									
Geology and Soils	Direct	Loss of topsoil	No	Negative	Medium	Medium	• Stormwater Management Report approved by JRA to be implemented. • Topsoil removed from the site should be stored separately from all other stockpiled materials and subsoil, and no higher than 1.5m to avoid loss of topsoil by wind. The available amount of remaining topsoil is expected to be low.	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							• The stockpiled topsoil should be used for rehabilitation and landscaping purposes after construction has been completed.		
	Direct and indirect	Soil pollution	Yes	Negative	Moderate - high	Medium	• Temporary measures (i.e. drip trays/ temporary bunded areas) to be implemented to ensure that no pollutants (hydrocarbons/paints etc) are spilt, and if so, that they are contained and a clean-up protocol followed.	High	**Low**
	Direct	Poor quality subgrade and fill material	Yes	negative	Moderate - high	Medium	• Engineer to confirm that excavated areas are well prepared before construction of buildings. • Additional fill material to be imported in areas where material is of poor quality.	High	**Medium to Low**
	Direct and indirect	Clayish conditions, expansiveness and settling conditions of soils can cause cracks in buildings	Yes	Negative	Moderate to high	Medium	• Geotechnical engineer to conduct more detailed geotechnical investigation of site in order to determine conditions of soils. • In case of expansiveness above 40%, raft foundations could be regarded as necessary. • Engineers to confirm that excavated areas are well prepared to accommodate shrinkage and swelling conditions before constructing of	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							buildings. • Refer to the new SANS standards for more detailed tank installation standards and requirements. • Inspect tanks for cracks and damage to tank surfaces prior to lowering such tanks into excavated surfaces. • Engineers to confirm that excavated areas are well prepared to accommodate shrinkage and swelling conditions before lowering tanks into the excavated pits. • Install a PVC pipes (vertically) in the excavated pits, downstream of the tanks to be installed in the excavated pits in order to act as monitoring holes for leachate/ ground water pollution and soil pollution. • Fill up around the PVC pipes and tanks and allow for the PVC pipe to elevate at least 20cm above natural ground level and place caps on the pipes in order to prevent any unwanted objects from entering the bottom of the excavations through such pipes. This measure will assist with on-going pollution monitoring and it		

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							will make it possible to supply banks and authorities with pollution data requested to confirm that the land is not contaminated. • Test the ground water quality and the soil quality just after installing the tanks and conserve the test results in order to act as baseline data. • The Filling station needs to be designed in accordance to the Best Practise Guidelines for the installation of a filling station by the Oil and Gas industry, and all specifications need to be adhered to. • Vacusonic testing on the tank integrity needs to be done regularly. • Housekeeping and regular inspections for the site should be carried out. • Regular on-site inspections of surface water drains, and the tank observation boreholes should be conducted on a weekly basis. • In the case of shallow water tables, it will be necessary to install tank observation boreholes in the tank farm areas that will serve as early warning systems.		

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							• Two environmental monitoring boreholes are proposed to be drilled on site. • If shallow water table conditions are identified on the study area a detailed groundwater monitoring plan should be implemented. At this stage no perched water conditions are expected.		
Topography	Indirect	Alteration of topography from cut and fill exercises.	No	Negative	Low	Medium	• Temporary construction phase storm water management measures to be implemented (i.e. sand bags and hay bales) in order to prevent erosion. • Geotechnical engineer to investigate all sites prior to construction of the foundations.	High	**Low**
	Direct and indirect	Pollution of surface water	Yes	Negative	High	Medium	• Increased run-off during construction must be managed using berms and other suitable structures as required to ensure flow velocities are reduced. • Vehicles to only use the designated access routes. • A spill kit to be available on site. • All vehicles to be inspected regularly for leaks. Leaking vehicles may not enter the site. • The mixing of concrete to be done in a designated area on mortar boards.	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							• No effluent may be discharged into the watercourse. • Any pollution incident that occurs, must be communicated with DWS.		
Effects on biodiversity	Direct and indirect	Impact on adjacent Class 2 Ridge	Yes	Negative	Low	Low	• Erect a conservation fence between the ridge area adjacent to the study area and the construction area. No entrance shall be permitted into the Class 2 ridge area. • No animals to be caught, trapped, killed or injured during construction. • Conservation clauses, including penalties, to be included in all contracts. • No wood harvesting of trees and shrubs in the adjacent areas will be permitted. • Fires to only be within designated areas for workers cooking and fire extinguishers to be on hand.	High	**Low**
Socio-Economic									
Cultural and historical	Direct	Heritage discovery potential	No	Negative	Low	Low	• If any graves or archaeological sites are exposed during construction work it should immediately be reported to a museum or SAHRA.	High	**None**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Installation of services and upgrading of roads	Direct and Indirect	Impacts on provincial and local roads and on adjacent properties	Yes	Negative	Medium	Medium	• It is important that the construction phase consider the potential impacts of the upgrading of services and roads on the surrounding properties and roads. • Identify surrounding properties that could potentially be affected by road upgrades (i.e. accesses temporarily affected) and services upgrades and prepare notices to distribute to such affected parties. • Inform surrounding properties and authorities at least one week ahead of potential disruptions to services, accesses, and normal vehicular movement. • Arrange for temporary traffic signage or traffic assistants. The people used and signage used must be approved by the traffic department of the local authority. • All excavations to be clearly marked in order to prevent injury.	High	**Low**
Air quality pollution	Direct	Dust emissions from construction activities	No	Negative	Medium	Medium	• Dust suppression measures must be implemented during the construction phase. • Regular and effective damping down of working	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							areas (especially during the dry and windy periods) must be carried out to avoid dust pollution that will have a negative impact on the surrounding residents. • When necessary, these working areas should be damped down at least twice a day.		
Noise Pollution	Direct	Noise pollution form construction activities	No	Negative	Medium	Medium	• Noise mufflers should be utilized where needed. • Keep record of any concerns raised by stakeholders i.e. Complaints Register to be kept on site. • All construction activities must be restricted to normal working hours as depicted in the NBR document for site operations. • No construction may take place on Sundays and public holidays. • If any construction activities are required to take place on the aforementioned days, the surrounding residents must be informed at least 48 hours prior.	High	**Low**
Visual Impacts	Direct	Visual impact	No	Negative	Medium	Medium	• Protective barriers as well as safety tape may be utilised around the site. • A specific location for building rubble must be allocated on site in order to concentrate and collect	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							the building rubble and cart it to a registered landfill site. The allocated area must be out of sight of neighbouring properties • The selected site should not impair views (line of sight) of drivers utilising surrounding roads, nor should it be a distraction. • Stockpiles may not be higher than 1.5m in order to prevent impairing views (line of sight) of drivers utilising surrounding roads.		
Waste Generation	Direct	Domestic waste	No	Negative	Medium	Medium	• A waste management system will be formulated and implemented on site. • All employees will be subjected to **induction** to understand the environmental management requirements on site. • The site camp and the rest of the study area should appear neat at all times. • A temporary waste storage point (including for building rubble) shall be determined and established on site by means of demarcation. This storage points shall be accessible by waste removal vehicles. • Waste materials should be removed from the site on a regular basis (at least weekly), to a registered	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							landfill site. • Waste storage should occur in areas that have already been disturbed. • Small general waste containers should be provided throughout the site to prevent windblown waste. These waste receptacles must be emptied at the temporary waste storage area for removal. • The storage of solid waste on site, must be in the manner acceptable to the local authority. • Records of waste reused, recycled, and disposed of must be kept for future reference or inspection by authorities.		
	Direct	Construction waste	No	Negative	Medium	Medium	• All construction waste must be placed in a demarcated area and disposed of accordingly. • This area will be bermed / covered so as to prevent the dispersal of said waste by wind and rain. • Waste disposal certificates must be kept on record.	High	**Low**
	Direct	Hazardous waste	No	Negative	High	Low	• All hazardous waste must be stored in a bunded and lockable area. • Hazardous waste must be removed from the site by a certified waste contractor. • Waste disposal certificates	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							to be kept on record.		
Resource Consumption	Indirect	Electricity consumption	No	Negative	Low	Low	• Minimisation of over usage. • A generator to be put in place during incidental power outages. Solar panels are also recommended for use as a backup source for power.	High	**Low**
	Indirect	Water consumption	No	Negative	Medium	Medium	• Fair usage and care not to over use the water resources. • Promote the re-use and recycling of process water if possible.	High	**Low**
	Indirect	Fuel consumption	No	Negative	Low	High	• All construction vehicles will be maintained such as to operate efficiently. • Idling times of machinery to be minimised.	Medium	**Low**
	Indirect	Raw materials consumption	No	Negative	Medium	High	• Raw materials will be used efficiently and the use of recycled materials to be encouraged. • Recycling to be implemented wherever possible.	Medium	**Medium**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Incidents, Accidents and Emergency Situations	Direct	Health and safety	No	Negative	Medium	Medium	• Emergency response and preparedness plan to be kept on site at all times and all workers must be made aware of such plan. Emergency numbers to be placed on the wall at the site office. • Health and safety standards will be implemented during construction. • The **Health and Safety officer** to be appointed for the duration of the construction phase by the developer/ applicant, will be responsible for the monitoring of compliance with the health and Safety measures as set out in the relevant Health and Safety Act. • Mark all excavations clearly and warn workers working in and around excavations.	High	**Low**
	Direct and indirect	Storage of hydrocarbons	No	Negative	Medium	Low	• All hazardous materials will be stored in a bunded and lockable area. • Material Safety Data Sheet (MSDS) sheets will be available for all hazardous products.	High	**Low**
	Direct and indirect	Fire	No	Negative	High	Low	• Fire and emergency plans to be implemented during construction. Adequate firefighting equipment will be instituted as recommended.	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
	Indirect	Safety and security	No	Negative	High	Medium	• Health and safety officer to be appointed prior to commencement with construction and the safety plan as well as the required safety gear for workers to be available on the site. • Allow for 24 hour security on the site. Site security will ensure that the site is secured and only authorised access allowed. • Fence the construction site. This will keep children and other members of the public out of the potentially dangerous construction area. • If required for some of the workers to sleep on the site, such workers must be accommodated in an allocated area on the construction site. • Plan for the implementation of a security system that will reflect a database of all workers and personnel on site during the construction phase. • Remove the names of workers no longer involved in construction works on the study area immediately after such workers stopped with their duties/ were removed from their duties. • The 24 hour security must be notified of new	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
							construction workers/ workers to be accommodated on the study area and must also be informed of workers no longer involved in construction activities on the study area. • Where possible local laborers must be used in order to avoid an influx of people into the area. • Details of all persons to work on the site that must be supplied to the security and project manager must include the following: • Name and Surname, ID Number or Passport Number, Driver's License, Copy of relevant ID document/ passport/ driver's license/ service delivered by worker/ employee of the worker/Contact Details of the worker and contact details of a family member or employee. • Fence the area earmarked for the temporary accommodation of construction workers.		
Qualitative Environment	Indirect	Traffic congestion and disruption	No	Negative	Medium	Medium	• Traffic warning and calming measures will be put in place when construction activities may impact on traffic flow.	Medium	**Low-Medium**
OPERATIONAL PHASE									

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Bio-Physical									
Geology and Soils	Direct and Indirect	• Soil pollution due to spillages • Washing of paved surfaces and equipment with chemicals, soaps etc. and releasing polluted water onto the surface and allowing it to mix with storm water • Tank leakages	Yes	Negative	High	Medium	• Always ensure that storm water and dirty water are separated. • Install oil traps and grease trips where required • Release dirty cleaning water into the municipal sewage system. • Confirm the Local authority's capacity to receive process/ cleaning water. • Maintain impermeable paved surfaces and repair areas where leakages into the ground can occur on a regular basis. • Wash paved surfaces on a regular basis. • Install pressure valves on fuel pumps in order to detect possible leakage. Monitor ground water quality and take soils samples from monitoring boreholes upstream and downstream from the facility (as identified by a geo-hydrologist) and from PVC pipes installed with the fuel tanks on a bi-monthly basis.	High	**Low**
	Direct and indirect	Surface water and ground water pollution	Yes	Negative	Medium	Medium	• Implement leak detecting mechanisms and monitor ground water quality up and down stream of the installed tanks on a regular basis. • Prevent contaminated water	High	**Low**

Proposed Filling Station on Erf 489 Aspen Hills x 6								
POTENTIAL IMPACTS				SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE				
		Underground Storage Tanks and potential leakages associated with UST. ➢ Possible leakages between dispensing pumps and USTs. ➢ Leakages between USTs and filler points. ➢ Overfilling of the tanks during re-fuelling ➢ Secondary impacts such as housekeeping				from mixing with storm water. • Implement operational phase emergency plans to prevent any polluted water/ toxic substances from impacting on ground water quality and surface water quality. • Implement the emergency preparedness and response plan for the operational phase and put emergency contact number on walls at strategic points for purpose of dealing with emergencies (i.e. fires, explosions, oil spills, fuel spills etc.). • Vacusonic testing on the tank integrity needs to be done regularly. • Housekeeping and regular inspections for the site should be carried out. • Regular on-site inspections of surface water drains, and the tank observation boreholes should be conducted on a weekly basis. • Two environmental monitoring boreholes are proposed to be drilled on site. • A groundwater and soil monitoring plan should be developed and implemented.		
Socio-Economic								

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Waste Generation	Direct	Domestic waste	No	Negative	Medium	High	• Waste to be collected on a weekly basis by waste contractor. This will fall within the waste stream of City of Tshwane Metropolitan Municipality. • Dustbins to be secured in place with closable lids. • Recycling to be encouraged and recycling bins provided and clearly marked.	High	**Low**
	Indirect	Lighting	No	Negative	Medium	Medium	• Security lighting must not spill into the eyes of oncoming traffic or shine into adjacent properties. • Interior lighting must use energy-saving light bulbs. • Exterior lighting must be designed to shine downwards and the bulbs to be used should be "dim",not bright. • Prevent the implementation of exterior advertising signs and name boards that will flicker into the eyes of surrounding neighbours and oncoming traffic. • Obtain the necessary approvals for the erection of advertising and other signs (also take the SAMOAC document into consideration) at the relevant authorities.	High	**Low**
Provision of affordable housing	Direct	Housing	Yes	Positive	High	High	• The aim of the development is to provide affordable residential housing for the area.	N/A	**N/A**

Proposed Filling Station on Erf 489 Aspen Hills x 6									
POTENTIAL IMPACTS					SIGNIFICANCE (Prior to mitigation)	PROBABILITY	MANAGEMENT & MITIGATION MEASURES	MITIGATION EFFICIENCY	SIGNIFICANCE (with mitigation)
TYPE		DESCRIPTION	CUMULATIVE	NATURE					
Job creation	Direct	Employment	No	Positive	High	High	• Permanent employment opportunities will be created during the operational phase of the development.	N/A	**N/A**

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

Appendix F1 – Rezoning Application
Appendix F2– Motivation for Exemption from Phase 1 HIA Report
Appendix F3 – Ecological Scan for the proposed Filling Station Development on Erf 489
Appendix F4 – Aspen Hills x 6 TIA Report
Appendix F5 – Fuel Viability Report
Appendix F6 – Services Report Aspen Hills x6
Appendix F7 – Stormwater Management Report

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

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

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

Proposal

DECOMISSIONING PHASE			
Impact	**Significance**	**Proposed Mitigation**	**Significance after Mitigation**
Failure to budget for the Rehabilitation and Remediation Actions required during the Decommissioning Phase	High	• Determine budget for the decommission of the facility and place funds in a trust account to ensure that funds will be available for the decommissioning actions required.	Low
Soil Contamination	High	• Compile a methodology statement for the removal or emptying and sealing of the tanks that will prevent soil contamination from taking place during the decommissioning phase. • Conduct soil pollution tests of soils that surround the tanks in order to determine whether leakages caused any soil contamination. • Contaminated soil must be excavated, removed from the site and disposed-off at a landfill site, which can accept the contaminants as identified in the polluted soils. • Conduct soil testing in line with the soil test parameters as set out in the contaminated land provisions of the National Environmental Management: Waste Act. • No persons will be allowed to smoke cigarettes or make fires in the areas around the tanks.	Low
Water contamination	High	• Take baseline water quality samples (surface water and sub-surface water) before commencing with the decommissioning. • Take more water quality tests during the decommissioning phase in order to monitor/ detect possible leakages during the decommissioning phase. • If pollution is identified, the source of the pollution must be identified on an urgent basis and emergency measures must be implemented to put an immediate stop to the leakage.	Low
Dangerous excavations	Medium	• Erect signs at appropriate points to warn workers and public of dangerous excavations.	Low
Disposal of decommissioned	Medium	• Tanks must be empty before being transported or if it is to remain underground. Empty tanks must be	

tanks or keeping decommissioned tanks underneath the ground		disposed of at a suitable landfill site and the possibility of the recycling of such tanks must also be considered. If the tanks are to remain underground all remaining fuel must be removed from the tank and the tank must be filled with sand/ suitable substance that will absorb remaining liquid. All valves and lids must be closed.	
Fire risks and waste management	High	Compile and waste and fire management plan for the decommissioning phase. These plans must be linked to an emergency preparedness and response plan for the decommission phase.	Low
Exposed areas that require rehabilitation	Medium	Identify area that will be covered with landscaping and with new structures or fuel tanks and compile a storm water management plan for the prevention of erosion and siltation until the exposed areas are covered.	Low
Damage of roads with heavy equipment	Medium	Take photos of the surrounding roads before traveling on surrounding roads with heavy equipment and vehicles. Repair damaged kerbs, roads, infrastructure after completion of works	Low
Visual Impacts of removed tanks and associated infrastructure	Medium	Erect a construction fence around the facilities to be decommissioned and cover the fence with shade netting to screen-off unattractive views into the site. Store waste in areas that are accessible, but less visible.	Low

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

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

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:

Should the proposed filling station be approved, the cumulative impacts as referred to could be related to the construction as the operational phase is not anticipated to generate any major impacts.

Cumulative negative visual impact on surrounding views due to the campsite, movement of construction vehicles, building rubble storage, and construction works etc. This impact may be minimized by locating the site camp and rubble storage area in an area with low visibility from surrounding developments and road networks.

Background dust pollution caused by traffic could be aggravated by clearing of vegetated areas during construction. Dust control can be applied by means of water trucks, particularly in the dry winter months.

During the construction phase some safety problems (especially for the

surrounding residents and road users) are likely to occur due to construction activities. In order to minimize this, records must be kept of the workers that will sleep in a fenced camp on the study site and 24-hour security must be implemented on site. Compliance with the OHSA, National Building Regulations (NBR), Site Operation Manual and the Road Traffic Act are also required to ensure safety of road users and public during the construction phase.

Cumulative impacts associated with the operational phase include:

- Potential storm water/ groundwater impact due to hydrocarbon spillages or leakage from tanks;
- Job creations;
- Controlling and management of traffic flow;
- Fire risk associated with storage of bulk hazardous substances, and

Potential impacts on the sustainability of surrounding filling stations and the proposed new filling station if the filling station is prematurely developed.

The above-mentioned cumulative impacts can be mitigated if activities are correctly planned and measures (such as included in the EMPr) are implemented to manage activities which could cause any negative cumulative impacts. Refer to ***Appendix G***.

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

Most of the detrimental impacts associated with the development are short term in nature and are fairly easy to mitigate. None of the construction phase impacts is regarded as "fatal flaws" that can prevent the development from happening. Security, temporary storm water management, siltation prevention, the potential impacts on the existing services and the potential impacts of the proposed construction phase on the safety conditions of the surrounding roads, are the major concerns that were identified for the construction phase.

The impacts on the ecological environment were not regarded as significant, as the GDARD C-Plan did not regard the study site as a suitable habitat for Red List species, the study area is not earmarked as an Ecological Support Area in the GDARD C-Plan, the GPEMF earmarked the study area for urban development and GDARD already approved a "Business 3" development across the entire study area, which means that

the "Business 3" development can go ahead if the filling station is not developed. It is however essential that the developer and the EAP take the recommendations made by the various specialists into consideration when compiling the EMPr for the development.

The major long-term impacts associated with the operational phase of the development are positive and will contribute to the socio-economic upliftment of the area and it will enable the municipality to deliver improved services.

Furthermore, it was established that the proposed development would be in line with the planning and development frameworks, policies, plans etc. for the area on a national, provincial and local level.

Ecological

No species of conservation concern were found on the study site during the ecological survey. The site has few indigenous species present and is characterised by high invasive vegetation growth. Refer to **Figure 15** below denoting the proposed Thaba Ya Batswana Filling Station layout overlaid onto the site sensitivity.

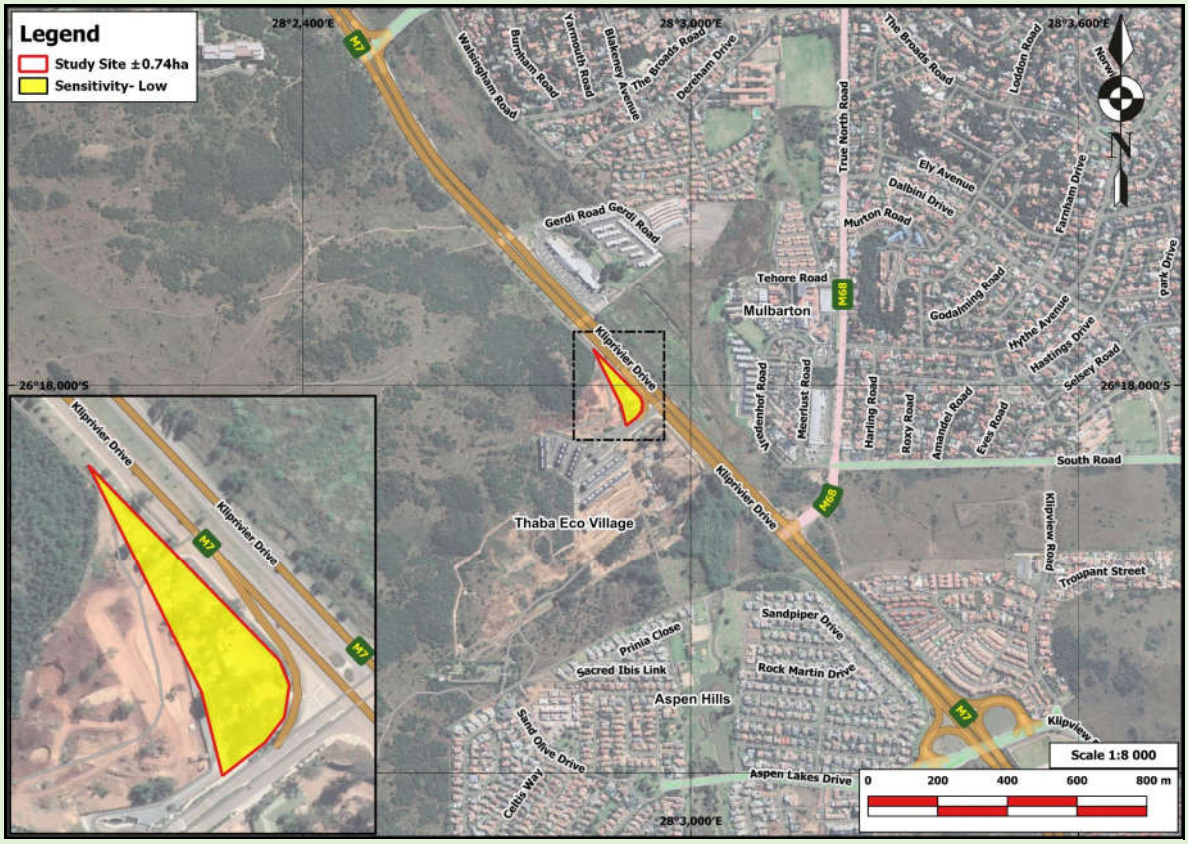

Figure 15: Sensitivity Map

Geotechnical

The most significant aspects that need to be considered when planning the filling station is the clayish nature of the soils and shallow soil conditions in certain areas. The installation and designs of the tanks are very important, as the heave conditions on the site could cause cracks in tanks. Take note that modern fuel tanks are now manufactured off-site with no joints. The tanks are then imbedded in rivers sand in order to allow for some soil movement around the tanks.

Shallow soil conditions could require that heavy equipment be used to excavate the holes for the underground tanks. In some cases blasting might be required. It is important the architects, civil engineer and geotechnical engineers confirm the positions of the proposed tanks, the excavation methods of the tanks and the method statement and standards from the installation of the tanks.

Socio-economic

The study site is now regarded as situated within the urban development boundaries as defined by the local and provincial authorities.

The impact assessment conducted as part of this application considered all the possible impacts and supplied mitigation measures, as part of the EMPr, which will prevent/restrict the anticipated construction phase related to acceptable levels. None of the construction phase impacts are regarded as "fatal flaws" which could prevent the development from happening.

The EAP appointed during the construction phase of the development will ensure compliance with the EA & EMPr and the I&APs will be able to contact the EAP and the project manager if there are any complaints or issues that are causing a nuisance. The ECO will keep track of all the complaints and see to it that such complaints are addressed and that impacts are mitigated on an urgent basis.

Based on the above, we are of the opinion that the proposed Filling Station development will be a positive development for the area. It is therefore recommended that application be approved and that the GDARD makes the authorisation valid for a period of at least **10 years.**

Alternative 1

Alternative 2

No-go (compulsory)

The study area already received an EA for a "Business 3" development and the developer will implement the "Business 3" development of the filling station is not approved. The site is however better located for a filling station and the viability study confirmed the suitability of the study area for a filling station.

The no-go alternative is thus not an option.

The social and economic benefits associated with the potential development will not be realized if the development is not approved.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The anticipated impacts were already discussed in detail in the impact statement above. To follow now is a short summary of the major impacts identified for the construction phase of the service infrastructure.

General:

The study site is not regarded as ecologically sensitive and is situated in an area earmarked for urban development.

The proposed filling station will be situated on a site which already received an EA for a "business 3" development and it is bordered by a residential development.

As a result, there can be no considerations which suggest that the introduction of a filling station facility will be incompatible with the prevailing land use regime in the area.

More development will increase the rates and taxes payable to the local authority, it will stimulate economic growth and it will create jobs (during the construction and operational phases).

Most Significant Impacts During the Construction phase:

Positive Impacts:

- Job creation (temporary jobs);
- Eradication of weeds and alien vegetation.
- Improvement of the local municipal services.

Negative Impacts:

- Possible soil erosion, clayish conditions of the soil, shallow soils and hard rock underneath in some areas;
- Dust pollution (short term);
- Siltation and Erosion;
- Visual pollution (short term);
- Safety and security issues for residents (short term);
- Temporary disruption of services and access to properties; and
- Impact on traffic flow.

Most Significant Impacts During the Operational Phase:

Negative Impacts:

- Surface water pollution caused by contaminated run-off;
- Ground water pollution caused by leaking tanks or spillages;
- Possibility of fire and explosion due to storage of hazardous substances.

Positive Impacts:

- Permanent jobs;
- Upgraded services and roads;
- Fuel, retail and a food facility for the local community;
- Increased security;
- Optimum utilisation of services;
- Development within the urban development boundary;
- Promotion of infill development and prevention of urban sprawl;
- In line with local authority and provincial planning frameworks.

- The study site is already disturbed and there is a retail development nearby as well as residential developments and the site falls within the urban development zone.

- The development will create new temporary and permanent job opportunities during the construction and operational phases, which will be beneficial for the community, Local Authority and the Gauteng Province in general.

- As already indicated in the report, most of the construction related activities can be mitigated to more acceptable levels and limited ecological impacts are anticipated.

Based on the biophysical, institutional, social, and economical characteristics, it is evident that the site is suitable for the proposed development. As a result of the above-mentioned information, we are of the opinion that the proposed filling station (only if planned, implemented, and managed correctly) will promote sustainable development and it will have a significant positive impact on the local area and the economy. It is therefore requested that the development be allowed to proceed, and that the implementation of the Environmental Management Programme (EMPR) (**Appendix G**) be a condition of such an approval.

For alternative:

N/A

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 study site is not regarded as ecologically sensitive. Both Departments, the specialists and the EAP confirmed that the study site is situated within the urban development boundary, it is not linked to any sensitive larger open space system, it is not affected by any ridges or watercourses and the study site is not regarded as ecologically sensitive. The development option is regarded as the preferred option from an economic, social and institutional point of view.

The study site is regarded as ideally situated for a proposed filling station, because it will be bordered by primarily non-residential development (generally earmarked for business). As a result, there can be no considerations which

suggest that the introduction of a filling station facility will be incompatible with the prevailing land use regime in the area.

Based on the above, we are of the opinion that the proposed service infrastructure will enhance the socio-economic environment and it is therefore recommended that this application receive an Environmental Authorisation (EA) with a validity period of **10 years**.

7. SPATIAL DEVELOPMENT TOOLS

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

Spatial data was used to determine the agricultural potential, presence of rivers and wetlands and GPEMF. Together with the Gauteng Conservation Plan (C-plan) data, the presence of ecological support areas and protected areas were also established.

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

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:

Bokamoso is of the opinion that both beneficial and adverse impacts were thoroughly assessed, and the needs and benefits for this project have been assessed so as to give the proposed Erf 489 Filling Station development the go-ahead.

In light of the above, it is recommended that this Basic Assessment Report (BAR) be approved subject to the implementation of the mitigation measures contained in the **Environmental Management Programme (*Appendix G*).**

It is recommended that, based on the findings of the BAR and supplemental specialist information that the following items be included as specific conditions of the authorisation to be issued:

- The mitigation measures and development guidelines as supplied in the Environmental Management Programme (EMPr) ***(attached as Appendix G***) must be implemented throughout all the development phases of the project;
- Environmental Authorisation (EA), an Environmental Management Programme (EMPr) must be implemented for the construction and

operational phases of the development. The EMPr, as attached to this report, must be made part of the contractual documents of the contractors;
- Mitigation measures, as set out in the EMPr, must be implemented during the construction and operational phases;
- Rehabilitation must be done correctly and on time, particularly in terms of erosion control and the prevention of exposed soils;
- The implementation of the Storm Water Management Plan;
- Grease traps are recommended to catch oil before entering the storm water system
- Signage/advertising board signage must comply with the relevant by-laws, regulations and standards of the local authority;
- If during construction any new evidence of archaeological sites or artefacts, paleontological fossils, graves or other heritage resources are found, construction activities must be stopped immediately and a qualified archaeologist or SAHRA must be contacted immediately for an assessment of the find;
- The safety and security of the people in the surrounding area is important and must be taken in to careful consideration during the construction phase;

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT

(As per notice 792 of 2012, or the updated version of this guideline)

As previously mentioned, the current owner of the site wishes to develop a Filling Station, ATM, Car Wash and Convenient store on the site subject to conditions and to simultaneously do a building line relaxation along Provincial Road P72-1affecting the site from 16m to 10m at Gautrans.

The site is located in a proclaimed township and is within the Urban Development Boundary according to the Johannesburg Spatial Development Framework, 2040.

The Development Objective 1 of the RSDF 2010/11, which states: Management of the Klipriviersberg Municipal Nature Reserve. The Klipriviersberg Municipal Nature Reserve, owned mostly by Council, forms the core of the Klipriviersberg area and is a proclaimed Nature Reserve. The area contains important natural vegetation, scenery and historical and archaeological artefacts. The proposed PWV 16 road is planned to cut through the southern portion of the Nature Reserve adjacent to the site.

Please take note: The proposed site falls outside of the Kliprivierberg Municipal

Nature Reserve. The proposed rezoning supports the Development Objectives of Region F, Sub Area 36 of the RSDF 2010/11 and will not have an impact on important natural vegetation, scenery and historical and archaeological artefacts located within the Kliprivierberg Municipal Nature Reserve. The proposed development will provide services to the potential visitors of the Reserve.

The Development Objective 2 of the RSDF 2010/11, which aims to improve accessibility, linkages and mobility to the sub area through the establishment of a proposed BRT/SPTN Route along Kliprivier Drive will further support the reason why the proposed rezoning application should be approved. Vehicles passing on Kliprivier Drive can fill up or obtain other services and occupants can satisfy their sustenance needs.
As per the SDF 2016/2017 the properties are within the Consolidation Zone and is located 750m walking distance from a Metrobus Route and Taxi Ranks. The Metrobus Route is located on True North Road.

As per the Nodal Review 2019/2020, the site is situated within the Sub-Urban Zone (Plan 77) and can achieve a minimum density of 20-30 du/ha. Due to the increased development taking place on Kliprivier Drive (a Class 2 – Major Arterial Road) and within close proximity to the Southgate Regional Node and the Robertsham/West Turfontein Specialist Node, the demand for Filling Station within the near area is inevitably going to increase. Additionally the high accessibility to the area will further attract residents. Therefore this proposed development is one of many to come which will support the influx of residents and workers to the Nodes and surrounding area.

This application is infill and redevelopment (brown field) focused, instead of green field development focused as it is located within and existing developed neighbourhood. The rezoning will improve land use management within the city and it will preserve rural land and biodiversity due to the fact that no important natural vegetation, scenery and historical and archaeological artefacts located within the Kliprivierberg Municipal Nature Reserve and prime agricultural land will be affected.

Proposed visitors to the Thaba Eco Conservancy that will utilise the walking

trails and mountain bike trails will most probably also utilise the facilities on the site including the bike wash at the car wash.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

10 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** **X**

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 Plans

Appendix A1: Sensitivity Overlay

Appendix A2: Enlarged Figures

Appendix B: Photographs

Appendix C: Facility illustration(s)/ Explanatory Diagrams

Appendix D: Public Participation

Appendix E: Correspondence with government departments

Appendix F: **Specialist Reports**

Appendix F1: Town Planning Memorandum

Appendix F2: Heritage Exemption

Appendix F3: Terrestrial Biodiversity Assessment Survey

Appendix F4: TIA Report

Appendix F5: Fuel Viability Report

Appendix F6: Services Report

Appendix F6.1: Johannesburg Water Approval of Services Report

Appendix 7: Stormwater Management Report

Appendix F7.1: Johannesburg Water comments on Stormwater Management Report

Appendix G: EMPr

Appendix H: **Other Information**

Appendix H1: Details of EAP and expertise

Appendix H2: Application Form

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.