

DRAFT BASIC ASSESSMENT REPORT

KYALAMI HILLS EXTENSION 26

**PORTION 73 (A PORTION OF PORTION 9) OF THE FARM
BOTHASFONTEIN NO. 408, REGISTRATION DIVISION J.R.**

AUTHORITY REFERENCE: 002/25-26/E0288



APRIL 2026

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GAUTENG PROVINCE
ENVIRONMENT
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 (2025 VERSION 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by the Gauteng Department of Environment in terms of the EIA Regulations, 2014.
2. This application form is current as of April 2025. It is the applicant's responsibility to check for any updated versions published 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 thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**
7. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
9. An incomplete report may lead to an application for environmental authorisation, or a Waste Management License being refused.
10. Any report that does not contain a titled and dated full-colour large-scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation or a Waste Management License being refused.
11. The use of "not applicable" in the report must be done with circumspection because if it is used for material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.
12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.
13. Unless protected by law, and indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
14. Although pre-application meetings with the Competent Authority is optional, applicants are advised to have these meetings before submission of the application to seek guidance from the Competent Authority.
15. Please note that your submission will be acknowledged within 10 days of receipt. If you do not receive an acknowledgement from the Department within this period, kindly follow up using our central email address: environmentenquiries@gauteng.gov.za

DEPARTMENTAL DETAILS

Gauteng Department of Environment
Attention: Environmental Support Services of the Environmental Branch
P.O. Box 8769
Johannesburg
2000
Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 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.

N/A

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.

No closure of the school is anticipated.

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?

Yes

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.

N/A

Have State Departments, including the competent authority commented?

No

If no, why?

The public participation process is currently underway. Comments received will be included in the final BAR.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Kyalami Hills Extension 26

Select the appropriate box

The application is for an upgrade of an existing development

☐

The application is for a new development

☒

Other, specify

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

☐ YES ☐ NO

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

According to the National Water Act, 1998 (Act No.36 of 1998) (NWA), the proposed development requires that a Water Use License (WUL), be applied for, for the following water uses:

- Section 21(c): Impeding or diverting the flow of water in a watercourse.
- Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse.

A Water Use License Application (WULA) has been lodged with the Department Water and Sanitation (DWS).

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

☐ YES ☐ NO

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).	National & Provincial	27 November 1998
Constitution of South Africa, 1996 (Act 108 of 1996)	Constitution Assembly	1996
National Environmental Management Biodiversity Act (Act 10 of 2004)	National & Provincial	2004
National Environmental Management: Waste Act, 2008 (Act No.59 of 2008)	National & Provincial	06 March 2008
National Water Act, 1998 (Act No.36 of 1998)	National Department of Water & Sanitation	26 August 1998
National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM: AQA)	National & Provincial	24 February 2005
National Heritage Resource Act, 1999 (Act No.45 of 1965) (NHRA)	National & Provincial	April 1999
Occupational Health and Safety Act (Act No. 85 of 1993)	National Department of Labour	23 June 1993
EIA Regulations GN 983 and GN 985 (Listing Notice 1 and Listing Notice 2)-As amended	National and Provincial	8 December 2014
Gauteng Provincial EMF	Provincial	May 2015
Red List Plant Species Guidelines	Provincial	26 June 2006
Gauteng Noise Control Regulations, 1999	Provincial	1999
City of Joburg 2040 Spatial Development Framework	City of Johannesburg	2016
Johannesburg Open Space Management Framework	City of Johannesburg	2002
City of Joburg Biodiversity Strategy and Action Plan 2015	City of Johannesburg	2009

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).	The National Environmental Management Act (Act No. 107 of 1998) (NEMA) is the overarching framework for environmental legislation and regulates Environmental Impact Assessment. It sets out several principles that aim to give effect to the environmental policy of South Africa. These principles are designed to, amongst others, serve as a general framework for environmental planning, as guidelines by reference to which organs of state must exercise their functions and guide other laws concerned with the protection or management of the environment.
Constitution of South Africa, 1996 (Act 108 of 1996)	Section 24 of the Act states that “...everyone has the right (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that (c) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.” This protection encompasses preventing pollution and promoting conservation and environmentally sustainable development. EA application will ensure that principles of the Constitution are taken into cognisance.
The National Environmental Management: Biodiversity Act (Act 10 of 2004)	The Act provides for the management and conservation of South Africa’s biodiversity within the framework of the NEMA. Areas of high biodiversity need to be protected. The site has no important biodiversity features. Should any protected species be found on site, these will be managed in consultation with Gauteng Department of Environment (GDEnv).
The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	No waste management license would be required for the construction or operational phases of the proposed activity. Only a limited amount of solid construction waste will be stored and handled on-site before being deposited at the nearest registered landfill site.
The National Water Act, 1998 (Act No. 36 of 1998)	The aim is to ensure the Republic’s water resources are protected, used, developed, conserved, and controlled. According to the Act, any proposed water uses must be specified, registered, and/or licensed. Similarly, any modifications to drainage lines on site must be investigated regarding water use requirements. The proposed site is noted to be outside the 32m buffer of any watercourse but within the 500m regulated area of a watercourse and therefore a water use licence must be obtained.
National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM: AQA)	Dust and noise generation can become significant During construction, especially for the surrounding landowners. However, if the development is well planned and the mitigating measures proposed in the EMPr are successfully implemented, the proposed development’s contribution to air pollution and the generation of air pollution can become less significant
National Heritage Resources Act, 1999 (Act No. 45 of 1999 (NHRA)	The Act aims to promote the good management of the national heritage resources. According to the Act the South African Heritage Resources Agency (SAHRA) must be notified during the early planning phases of a project for any development that meets specific criteria. The Agency has been notified as

	required. Any artefacts uncovered during the construction phase will be reported to SAHRA as provided in the EMPr.
Occupational Health and Safety Act (No 85 of 1993)	The Act provides for the health and safety of persons at work and the health and safety of persons in connection with the use of 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. The EMPr provides for measures to ensure that the objectives of the Act are met on this site.
EIA Regulations, 2014, as amended on 4 April 2017 (Listing Notice 1& 3)	The proposed development constitutes an activity listed under GN R. 327 and GN R.324, a Basic Assessment Report process is followed to obtain authorisation from the GDENV.
Gauteng Provincial Environmental Management Framework	The EMF aims to guide the protection and enhancement of environmental assets and natural resources along with development patterns to ensure sustainable environmental management and development patterns within and around the Gauteng Province. In terms of the EMF, the site is within, the High Control Zone inside the urban boundary; however, the site has been approved for development.
Red List Plant Species Guidelines	The guidelines aim to promote the conservation of Red List Plant Species in Gauteng, which are species that face the risk of extinction in the wild. Protecting Red List Plant Species, the conservation of diverse landscapes is promoted, forming part of the overall environmental preservation of diverse ecosystems, habitats, communities, populations, species, and genes in Gauteng. No Red Listed plant species were found within the site.
Gauteng Noise Control Regulations, 1999	During the construction phase, the impact of noise could be problematic, but such impacts are generally short-term. One should note that practical mitigation measures for noise pollution are low, but certain measures can be implemented to mitigate the severity. These measures have been provided for in the EMPr.
City of Joburg 2040 Spatial Development Framework	The site is located within the suburban zone, where the city will allow new developments that promote the goals and meet the requirements of the SDF, but do not require extensive bulk infrastructure upgrades other than in meeting current infrastructure backlogs. The proposed educational facility is in line with the provisions of the Spatial Development Framework.
Johannesburg Open Space Management Framework	The JMOSS seeks to ensure an inter-connected and managed network of open spaces supporting interactions between social, economic, ecological activities, sustaining, and enhancing both ecological processes and human settlements within the city.
City of Joburg Biodiversity Strategy and Action Plan 2015, 2009	The Strategy and Action Plan articulates actions to implement the vision, strategic objectives, and actions necessary for biodiversity conservation, protection, use and development of biodiversity. It constitutes a tool to deliver continuing action for biodiversity stewardship. Should any protected plants be found on site, these will be managed in consultation with GDARD.

ACTIVITIES APPLIED FOR

Listing Notice & Activity No.	Description	Aspects of the proposed development triggering the Activity
GN. R 327 Listing Notice 1 (Activity 19) (07 April 2017)	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving — (a)...; (b)...; (c)... ;	The proposed development has a bridge crossing, and storm water infrastructure within a wetland.
GN. R 327 Listing Notice 1 (Activity 27) (07 April 2017)	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The footprint of the Kyalami Hills Extension 26 development is 2.4675 hectares and therefore more than 1 hectare of indigenous vegetation will be cleared.
GN. R 324 Listing Notice 3 (Activity 12) (07 April 2017)	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 any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or before 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...	The clearance of an area of 300 square meters of Egoli Granite Grassland area which is classified as endangered, which is also affected by an CBA1.
GN. R 324 Listing Notice 3 (Activity 14) (07 April 2017)	The development of— (i)...; or (ii)...infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a)within a watercourse; (b)...; or (c)if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding ...	The proposed bridge and infrastructure footprint will be more than 10 square metres.

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

Alternatives were considered based on-site location, adjacent land uses, environmental sensitivities, availability of engineering services, efficient use of land as advocated in spatial plans as well as the environmental attributes of the site. The process of elimination was used to systematically narrow down project alternatives by screening out those with unacceptable or severe environmental impacts, leaving only the most viable and sustainable options for further consideration. There after, the design of the layout and placement of the educational facility was selected.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")	Description
1	Proposal	Development of an educational facility, permitting institutions, place of instruction catering for about 1000 students, social halls and religious purposes including a tuck shop, canteen, sport and recreational facilities, and ancillary and related uses.
3	Alternative 2	
	Etc.	

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

Through evaluation and weighing of the environmental factors, socio-economic imperatives and the spatial implications, the educational facility was the most fitting. The proposed Kyalami Hills Extension 26 development is located in close proximity to four (4) significant mixed use development nodes, namely the Midrand Metropolitan Node, the Waterfall Regional Node, the Kyalami Gardens Regional Node and the Kyalami Specialty Node. These nodes accommodate a broad range of land uses, including retail, office, residential and institutional functions and are recognised as major urban growth points within Johannesburg's northern corridor. Thus, location of the school within the catchment of these nodes makes it well positioned to support complementary land uses that serve the surrounding residential population and contribute to a balanced urban environment.

4. PHYSICAL SIZE OF THE ACTIVITY

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

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

Size of the activity:

2.4675 ha

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Ha/ m²

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Length of the activity:

--

m/km

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

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the site/servitude:

8.6375 ha

Ha/m²**5. SITE ACCESS****Proposal**

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:

Access to and exit from Kyalami Hills Extension 26 shall be provided via Le Roux Avenue/Springwell Avenue.

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)

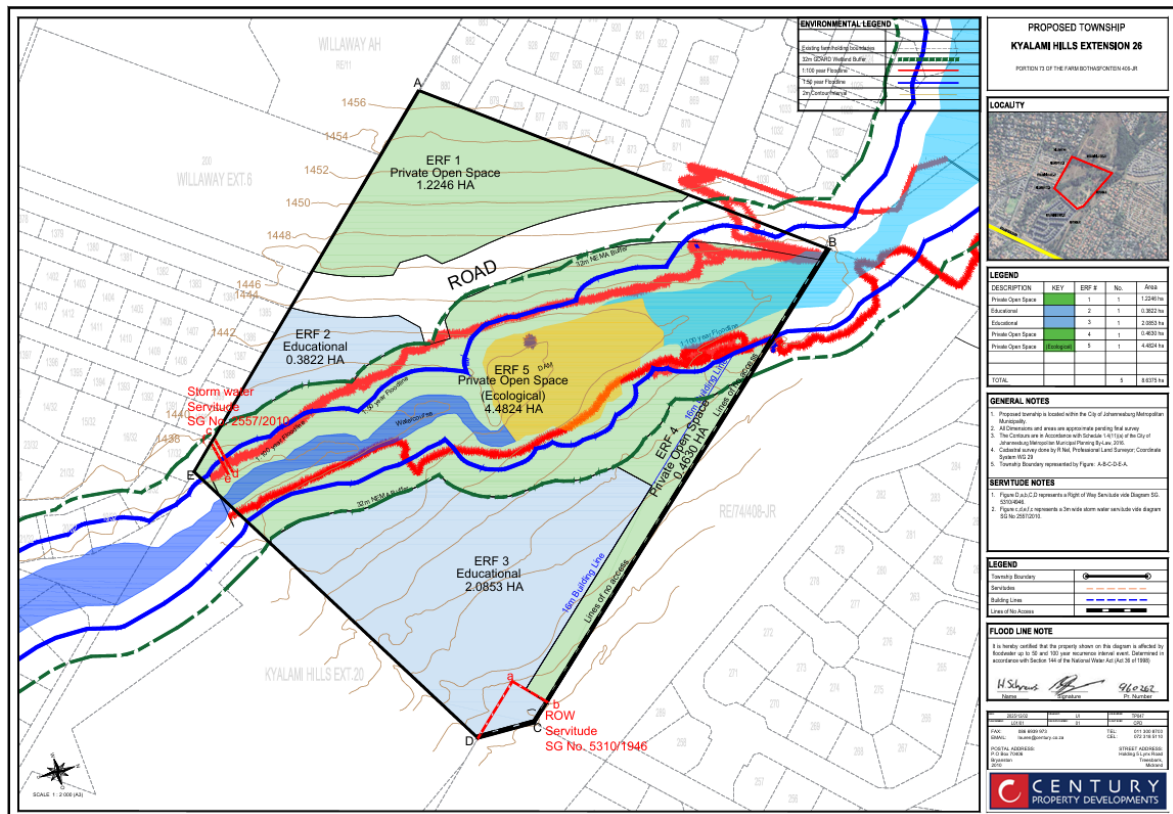


Figure 1: Layout Map

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.

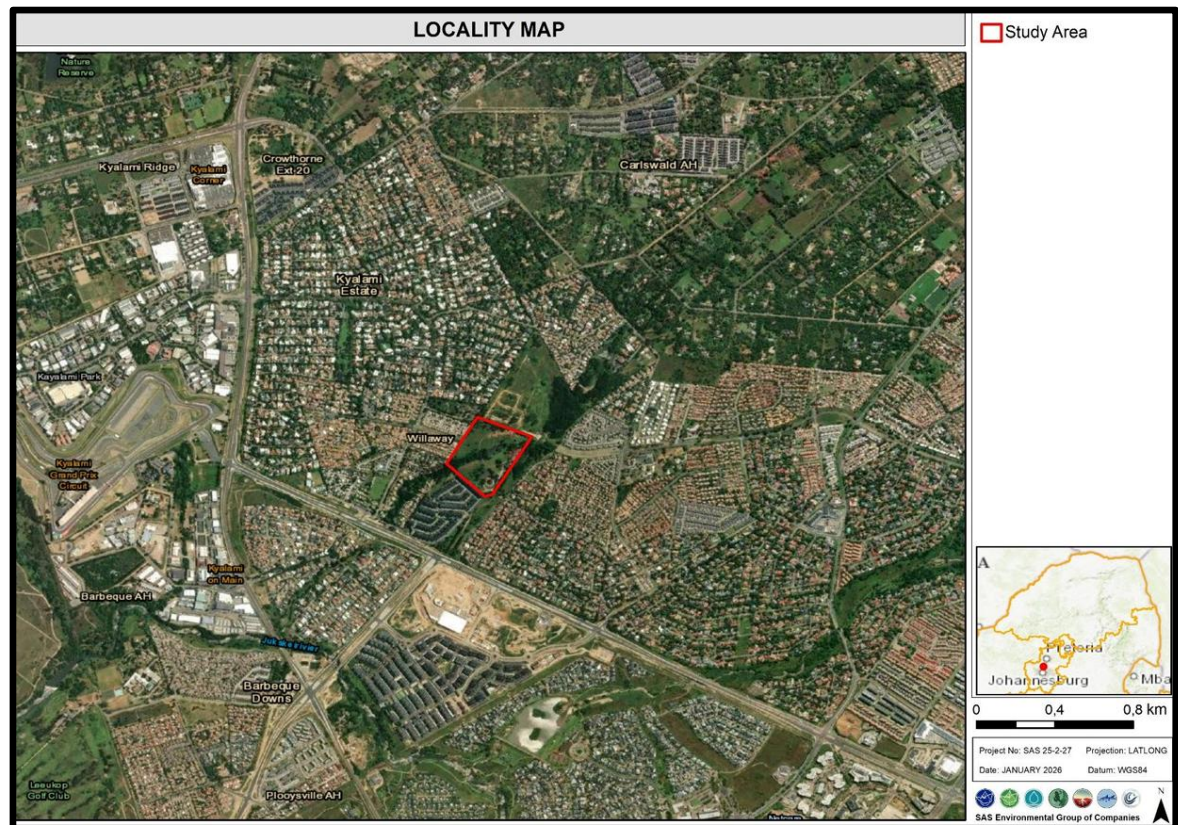


Figure 2: Locality Map

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 TO 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 TO 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 times

Instructions for completion of Section B for location/route alternatives

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

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

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

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

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

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

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

1. PROPERTY DESCRIPTION

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

The proposed Kyalami Hills Extension 26 development is located on Portion 73 (a portion of Portion 9) of the farm Bothasfontein No. 408, Registration Division J.R., Province of Gauteng. The facility is situated to the east of Le Roux Avenue/Springwell Avenue, to the north of Kyalami Estates, to the west of the proposed extension of Provincial Road K73 and to the north of Kyalami Hills.

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):

25°59'13.62"S

28° 05'14.32"E

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

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

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	J	R	0	0	0	0	0	0	0	0	0	4	0	8	0	0	0	7	3
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
------	-------------	-------------	-------------	--------------	-------------	------------------

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
-----------	---------	--------------------------	--------	-------	----------------------------	-------------

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

- Shallow water table (less than 1.5m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	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
-----	----

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
-----	----

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
-----	----

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

Latitude (S):

Longitude (E):

--	--

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

6. AGRICULTURE

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

YES	NO
-----	----

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

The site has a high agricultural potential as shown in the agriculture theme sensitivity map overleaf.

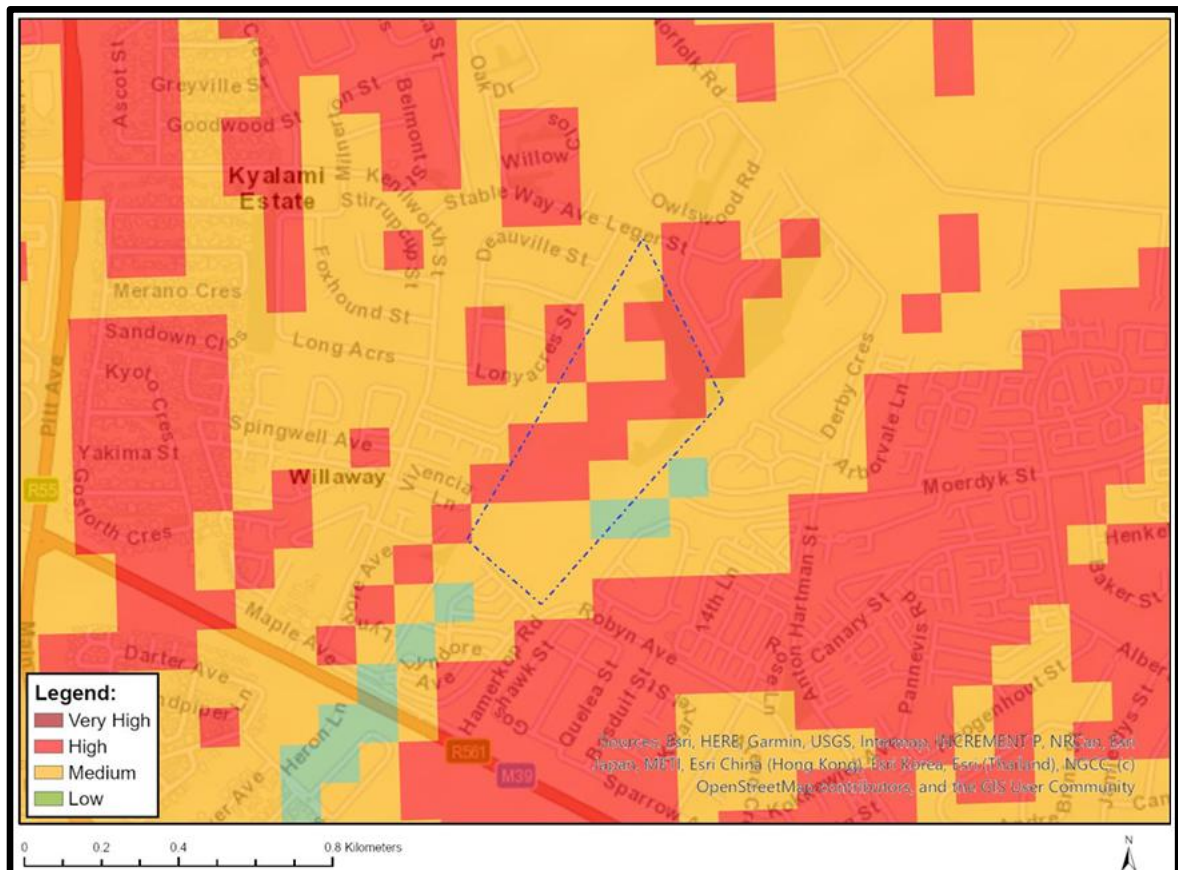


Figure 3: Agricultural map

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 % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =80	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =10	Bare soil % =5

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
-----	----

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
-----	----

If YES, specify and explain:

--

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

YES	NO
-----	----

If YES, specify and explain:

--

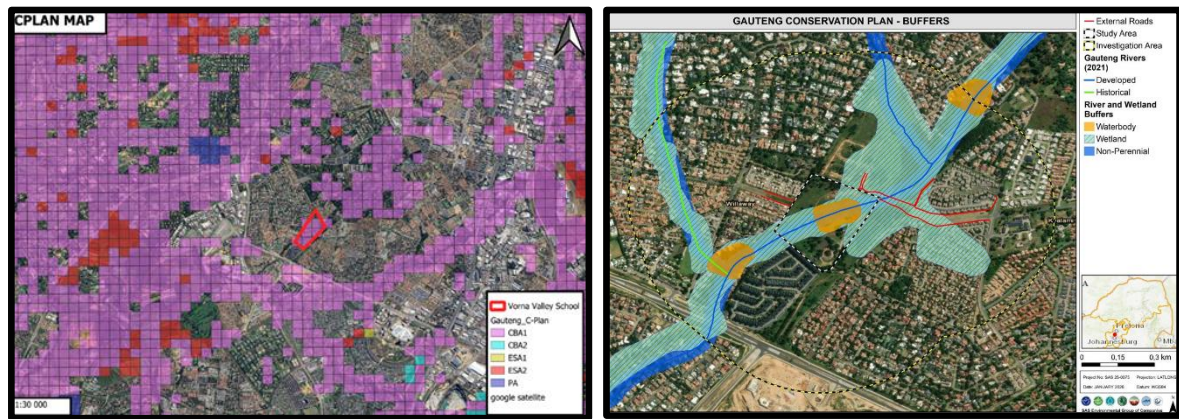


Figure 4: C-Plan Geographic Areas and Conservation Plan Buffers

Was a specialist consulted to assist with completing this section

YES NO

If yes complete specialist details

Name of the specialist:

Samantha-Leigh Daniels

Qualification(s) of the specialist:

PHD Plant Science (University of Pretoria)
MSc Plant Science (University of Pretoria)
BSc (Hons) Zoology & Entomology (University of Pretoria)
BSc Zoology & Entomology (University of Pretoria)

Postal address:

SAS Environmental Group, 29 Arterial Road West, Oriel,
Johannesburg

Postal code:

Telephone:

011 616 7893

Cell:

E-mail:

admin@sasenvgroup.co.za

Fax:

Are any further specialist studies recommended by the specialist?

YES NO

If YES, specify:

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

YES NO

If YES list the specialist reports attached below

Signature of specialist:

See attached report

Date:

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

8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	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) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

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				
9	9	6,9	9	2,6,9
9	9	1,9	1,2	1
9	1	SITE	1, 9	9
9	2,6	1	9	9
2	9	9	9	9
SOUTH				

WEST

EAST

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

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

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

YES	NO
-----	----

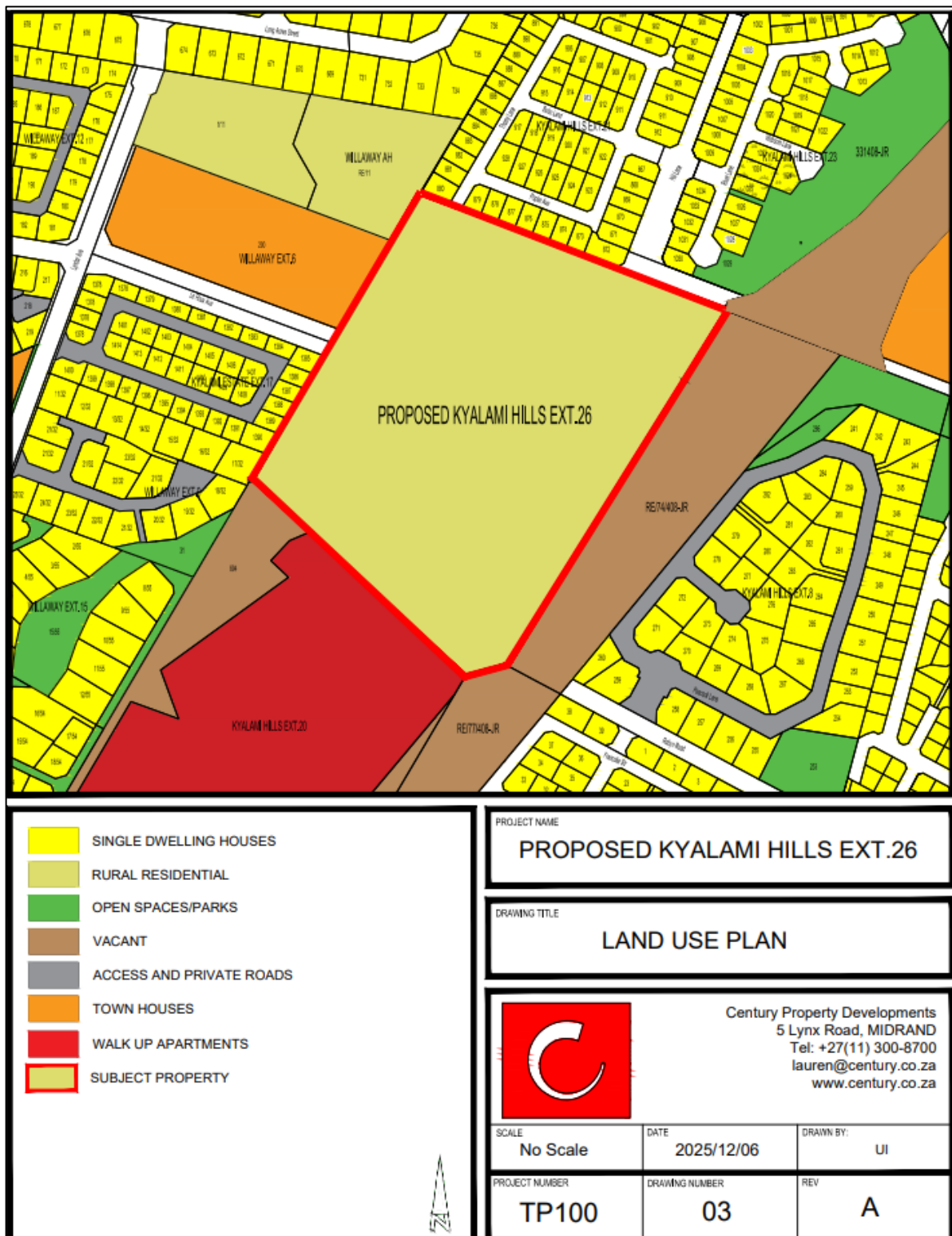
- Ecological Impact Assessment
- Wetland Impact Assessment
- Heritage Impact Assessment
- Town Planning Memorandum
- Outline Service Report (Water and Sewer)

9. SOCIO-ECONOMIC CONTEXT

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

The surrounding area comprises a mix of vacant agricultural land, rural agricultural holdings and fully developed residential neighbourhoods, reflecting the area's ongoing urban transformation. Directly to the north lies the Remaining Extent of Portion 72 of the farm Bothasfontein No. 408, Registration Division J.R., Province of Gauteng, a dwelling house and urban agriculture and currently vacant, with the established residential township of Kyalami Estates located further north. To the east, the Remaining Extent of Portion 74 of the farm Bothasfontein No. 408, Registration Division J.R., Province of Gauteng, a dwelling house and urban agriculture and is undeveloped (road reserve for the future extension of Provincial Road K73). Further east are the established residential areas of Kyalami Hills and Vorna Valley, both characterised by low to medium density residential development.

To the immediate south, Erf 693 Kyalami Hills Extension 20, zoned “Residential 3”, is developed with medium density residential apartments, while Erf 694 Kyalami Gardens Extension 20 is zoned “Private Open Space” and currently vacant. To the south-west, the erven within Willaway Extension 9 are zoned “Residential 2” and are developed with single residential dwellings. The erven in Kyalami Estate Extension 17 and Willaway Extension 6 to the west are similarly zoned “Residential 2” and are also developed for single residential use. To the north-west, the Remaining Extent of Holding 11 Willaway Agricultural Holdings is zoned “Agricultural”, developed with a dwelling house and associated outbuildings, and used for rural residential purposes.



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
-----	----

If YES, explain:

--

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

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

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the site falls. No sites, features and material of cultural heritage origin and significance were identified in the area during the assessment.

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

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

YES	NO
YES	NO

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.

The public participation process is being conducted in accordance with the requirements and provisions of the EIA Regulations, 2014, as amended.

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
-----	----

If yes, has any comments been received from the local authority?

YES	NO
-----	----

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.

The Draft BAR has been circulated to the local authority; and comments will be included in the FBAR, should any be received.

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
-----	----

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

The Draft BAR has been circulated to the stakeholders. Comments received will be included in the FBAR.

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.

All comments and responses to each comment from the public/interested and affected parties are being recorded in the Comments and Responses Report as prescribed in the regulations and will be attached to the Final BAR

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

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

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from interested and affected parties

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

Appendix 6 - Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

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

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

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

YES	NO

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

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

- **Construction waste** will comprise mainly excess spoil material from ground excavations and trenching activities, vegetation clearance, construction material, general waste from site personnel, paints and solvents, and wastewater and sewage to be disposed of at registered sites.
- **Spoil material** will be reused where possible (as backfill or erosion mitigation works), while excess spoil must be disposed of off-site. Spoil material will be hauled with tipper trucks to a pre-determined spoil site; the area will be covered with a layer of topsoil and re-vegetated.
- **General waste** will be kept in bins within the construction site collected, disposed of into a skip and transported to the nearest landfill site.
- **Spent canisters** for paints and solvents will be the responsibility of the respective contractor and shall be disposed of at a suitably licensed landfill site or recycled as required.

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

- Spoil material will be re-used as backfill material, and excess will be disposed of at the nearest registered Municipal Dumping site.
- General waste that is not recyclable will be disposed of at the nearest municipal landfill site.
- Hazardous waste (paint) will be disposed of at a hazardous facility.

Will the activity produce solid waste during its operational phase?

YES	NO

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

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

Solid waste will be collected and disposed of by municipality.

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

YES	NO

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

To be disposed of at a licensed landfill site.

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

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
-----	----

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 waste construction materials be sorted into recyclable and non-recyclable materials. The recyclable materials should be re-used where possible or disposed of by a recycling company.

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
-----	----

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
-----	----

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.

N/A

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
-----	----

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:

N/A

Liquid effluent (domestic sewage)

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

YES	NO
-----	----

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 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
-----	----

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

N/A

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
-----	----

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:

During construction, there will be localised liberation of dust due to excavations and the hauling of materials around the site. Localised exhaust emissions will also occur, however a significant increase in concentrations of hydrocarbons, nitrogen oxides and carbon monoxide is not anticipated.

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

liters

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

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

YES

NO

If yes, list the permits required

According to the National Water Act, 1998 (Act No.36 of 1998) (NWA), the proposed development requires that a Water Use License (WUL), be applied for, for the following water uses:

- Section 21(c): Impeding or diverting the flow of water in a watercourse.
- Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse.

A Water Use License Application (WULA) has been lodged with the Department Water and Sanitation (DWS).

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

YES

NO

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

YES

NO

3. POWER SUPPLY

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

Municipality

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

N/A

4. ENERGY EFFICIENCY

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

Energy saving measures such as energy saving lighting choices will be implemented during operation. Further energy saving measures could be included in the design of structures.

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

Solar- Use of solar power for water heating and outside lighting will be considered during the operational phase. The details of the system shall be worked during the final design of the development.

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.

The PPP is currently underway. Comments received from Registered Interested and Affected Parties are being recorded, responded to and collated into the Final BAR.

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):

Issues and response will be attached to the Final BAR.

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

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

The beneficial and adverse impacts of the proposed development have been discussed below.

Nature: classification of whether the impact is positive or negative, direct, or indirect.

Extent: spatial scale of impact and classified as:

- **Site:** the impacted area is the whole or significant portion of the site.
- **Local:** Within a radius of 2km of the construction site.
- **Regional:** the impacted area extends to the immediate, surrounding, and neighbouring properties.
- **National:** the impact can be of national significance.

Duration: Indicates what the lifetime of the impact will be and is classified as:

- **Short-term:** The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase.
- **Medium-term:** The impact will last for the period of the construction phase, where after it will be entirely negated.
- **Long-term:** The impact will continue or last for the entire operational life of the development but will be mitigated by direct human action or natural processes thereafter. The only class of impact which will be non-transitory.
- **Permanent:** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

Intensity: Describes whether an impact is destructive or benign.

- **Low:** Impact affects the environment so that natural, cultural, and social functions and processes are unaffected.
- **Moderate:** The affected environment is altered, but natural, cultural, and social functions and processes continue, albeit modified.
- **High:** Natural, cultural, and social functions and processes are altered to the extent that they temporarily cease.
- **Very High:** Natural, cultural, and social functions and processes are altered to the extent that they permanently cease.
- **Probability:** Describes the likelihood of an impact occurring.
- **Improbable:** The likelihood of the impact materialising is very low.
- **Possible:** The impact may occur.
- **Highly Probable:** Most likely that the impact will occur.
- **Definite:** Impact will certainly occur.

Significance: Based on the above criteria, the significance of issues and the total number of points scored for each impact indicates the level of significance of the impact and is rated as:

- **Low:** the impacts are less important.
- **Medium:** the impacts are important and require attention; mitigation is required to reduce the negative impacts.
- **High:** the impacts are of great importance. Mitigation is, therefore, crucial.

Cumulative: In relation to an activity, means the impact of an activity that may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Mitigation: Where negative impacts are identified, mitigation measures (ways of reducing impacts) have been identified. An indication of the degree of success of the potential mitigation measures is given per impact.

Criteria for the rating of impacts				
Criteria	Description			
Extent	National The whole of South Africa	Regional Provincial and parts of neighbouring provinces	Local Within a radius of 2km of the construction site	Site Confined to the construction site
Duration	Permanent- Mitigation, either by man or natural process, will not occur in such a way or in such a time that the impact can be considered transient	Long-term The impact will continue or last for the entire operational life of the development but will be mitigated by direct human action or natural processes thereafter. The only class of impact which will be non-transitory	Medium-term The impact will last for the period of the construction phase, where after, it will be entirely negated	Short-term The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase
Intensity	Very High - Natural, cultural, and social functions and processes are altered to the extent that they permanently cease	High- Natural, cultural, and social functions and processes are altered to the extent that they temporarily cease	Moderate- The affected environment is altered, but natural, cultural, and social functions and processes continue.	Impact affects the environment in such a way that natural, cultural, and social functions
Probability	Definite The impact will certainly occur	Highly Probable Most likely, the impact will occur	Possible The impact may occur	Improbable The likelihood of the impact materialising is very low
Rating	4	3	2	1
Significance Rating of classified impacts (E +D +I) X P				
Impact	Points	Description		
Low	3-23	An acceptable impact for which mitigation is desirable but not essential. The impact alone is insufficient, even with other low impacts, to prevent the development from being approved. These impacts will have positive or negative medium to short-term effects on the social and/or natural environment.		
Medium	24-37	An important impact which requires mitigation. The impact is insufficient by itself to prevent the implementation of the project, but which, in conjunction with other impacts may prevent its implementation. These impacts usually have a positive or negative medium to long-term effect on the social and/or natural environment.		

High	38-43	A serious impact, if not mitigated, may prevent the implementation of the project (if it is a negative impact). These impacts would be considered by society as constituting a major and usually a long-term change to the (natural &/or social) environment, resulting in severe or beneficial effects.
Very high	44-48	A very serious impact, if negative, may be sufficient by itself to prevent project implementation. The impact may result in permanent change. Very often, these impacts are unmitigatable and usually result in very severe effects or very beneficial effects
Status	Denotes the perceived effect of the impact on the affected area	
Positive (+)	Beneficial impact	
Negative (-)	Adverse impact	
Negative impacts are shown with a (-) while positive ones are indicated as (+)		

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

Proposal

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
PRE-CONSTRUCTION PHASE				
- Lack of knowledge and understanding of impacts of activities by construction teams leading to avoidable negative impacts on the environment. - Inappropriate timing of vegetation clearance during peak growing or flowering seasons may increase impacts on indigenous flora and reduce rehabilitation success. - Inadequate planning, infrastructure placement, or survey timing may lead to preventable losses. - Failure to identify or relocate provincially protected plant species prior to construction. Lack of pre-construction permitting may lead to non-compliance and avoidable biodiversity loss - Disturbances of soil, potentially leading to increased AIP proliferation and altered freshwater habitat. - A poorly developed stormwater management plan at design stage may fail to account for post development hydrology, resulting in future erosion, altered surface runoff patterns, and downstream sedimentation, ultimately reducing the quality and extent of remaining natural areas. - The use of existing wetland crossings as part of the proposed layout presents	34	- Environmental training to be provided before commencement of activities. - Site access and layout to be determined prior to construction commencing on site. It must be ensured that, as far as possible, all proposed infrastructure, including temporary infrastructure, is not placed outside of the authorised footprint, especially within the remaining adjacent Freshwater and Secondary Grassland Habitat. - The area in which construction activities are to take place must be fenced off and clearly demarcated. - In terms of planning of construction phase activities and vegetation restoration, cognisance must be given to the best time for construction (winter months) and the best time for re-vegetation. Preferably, construction must be timed to finish at the end of the winter dry season, so that re-vegetation can commence soon after to minimise the time that soils are exposed. - Relocation of SCC to precede construction activities. - An Alien Invasive Management Plan must be developed before construction commences. - The placement of linear infrastructure (e.g. powerlines, cables or pipelines) must avoid the freshwater ecosystem habitat as far as possible. - Powerlines, pipes or cables may be aligned with existing crossings (i.e. road infrastructure) to limit the creation of additional footprint areas. - A formal Stormwater Management Plan (SWMP) must be designed by a suitably qualified engineer/hydrologist which must consider the increased runoff potential and increased sedimentation potential of the areas permanently kept clear of vegetation.	20	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
a risk of avoidable wetland degradation if upgrades are not informed by site-specific hydrological and ecological assessments, potentially resulting in unnecessary loss of wetland function, increased fragmentation, and reduced or degraded ESA functions.		- As part of the SWMP, it must be ensured that all stormwater discharge is done in an attenuated manner. The stormwater infrastructure and outlets must therefore be appropriately designed to achieve this. - Consideration should be given to using materials which will assist in increasing the surface roughness within the bioswales and stormwater attenuation ponds (such as stone cobbles) to assist with energy dissipation and prevent sedimentation and erosion as well as improve habitat provision. - Should it be feasible, consideration of the design for the road crossing be in the form of a free-span bridge. A free-span bridge would allow the stream to flow uninterrupted under the crossing and therefore ensure the greatest level of hydraulic connectivity.		
CONSTRUCTION PHASE				
Geology and soils - Site clearing and the removal of vegetation may lead to increased runoff and erosion Loss of soil due to erosion. - Soil erosion due to ineffective storm water management. It is anticipated that erosion incidences might occur during wet seasons especially on the stockpiles (Topsoil and Subsoil).	36	- Proper stormwater management measures must be put in place. Runoff shall be considered, and its flow controlled on the construction site. - Excavations deeper than 1.5m be cut back to not more than 750 of horizontal and that the ingress of water in and around any excavations be prevented. Any deep excavations must not be left open for extended periods - All soils compacted because of construction activities falling outside of development footprint areas should be ripped and profiled.	10	Low
Fauna and flora Vegetation clearance and direct habitat loss Vegetation removal will directly result in the loss of natural habitat and may eliminate individuals of common species.	30	Removal of vegetation must be restricted to what is necessary and should remain within the approved development footprint – manage footprint creep to surrounding areas.	15	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
- Inadequate layout optimisation or poor footprint control during earthworks may result in clearing that exceeds the authorised footprint, causing unnecessary loss of natural vegetation and increasing edge effects. - Failure to carry out rescue and relocation of protected flora individuals immediately before vegetation clearing, following the approved method and permit requirements, may result in the loss of protected species. Encroachment into sensitive habitats (buffers and no-go areas) - Incorrectly demarcated or poorly maintained environmental buffers (e.g. wetland buffers and “no-go” areas) may allow machinery, stockpiles, lay-down areas, informal tracks, and worker movement to unintentionally encroach into Freshwater Habitat (i.e. ESA habitat). - An increased human presence may result in opportunistic collection, removal, or trampling of indigenous flora. - Informal footpaths created by construction personnel or subsequent site users may result in trampling of indigenous vegetation, soil compaction, and progressive widening		- TNCO-protected species that were marked during site walkdowns must be relocated to suitable areas prior to the commencement of construction activities (unless destruction permits are granted); relocated species must be monitored for up to three years or until successful establishment has been demonstrated. - Clearly demarcate all construction areas and regularly inspect boundaries to prevent footprint creep into surrounding natural habitats. - Construction rubble and/or cleared alien vegetation must be disposed of in a sustainable and environmentally responsible manner; no material is to be left on site or in the surrounding natural habitat. - No collection of indigenous floral species by construction personnel. - Retain and protect wetland buffers to maintain hydrological functions, flood attenuation, and habitat connectivity. - Vehicles should be restricted to travelling only on designated roadways to limit the ecological footprint of the construction activities. Additional road construction should be limited to what is necessary, and the footprint thereof kept to a minimal.		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
of disturbance into buffer and ESA areas. AIP introduction and spread • Introduction of plant pathogens or AIP propagules through contaminated equipment or soil, with spread via machinery, soil disturbance, temporary stockpiles, or dumped materials, outcompeting indigenous flora. • Failure to implement the AIP Management Plan across all construction zones may lead to rapid proliferation of AIPs associated with soil movement, disturbed substrates, and construction activities. • Poorly designed or incorrectly implemented landscaping plans, particularly those reliant on non-native species, may further reduce indigenous biodiversity and create conditions favourable to AIP establishment. • Disturbance corridors left unrehabilitated may become pathways for AIP invasion, further altering habitat integrity and reducing ecological functionality within ESA and adjacent habitats. Edge effects, soil disturbance, and degradation of habitat integrity		• Manage the spread of AIP species to prevent colonisation of remaining natural habitat. • To prevent indirect impacts on vegetation integrity (e.g. fire damage, soil compaction), vehicles must be restricted to designated roadways. • Stockpiled topsoil must be kept free of AIPs and stored in a manner that preserves the indigenous soil seed bank, where applicable. • Spills must be cleaned up immediately; spill kits should be kept on-site; vehicle maintenance to prevent hydrocarbon ingress into soil. • No illicit fires permitted during construction.		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
- Poorly managed edge effects, including excessive disturbance, dust deposition, AIP spread, and soil compaction, may substantially reduce habitat integrity adjacent to the development footprint. - Poor edge management may result in erosion, gully, or sedimentation, particularly where soils remain exposed or compacted, while inadequate rehabilitation of disturbed areas reduces vegetation cover and compromises soil stability. Habitat fragmentation and ecological connectivity - Habitat fragmentation associated with road crossings and the proposed school development may locally reduce ecological connectivity and compromise ESA functioning, particularly within freshwater-linked habitats. Impact on faunal species - Site clearing and the removal of faunal habitat in the Secondary Grassland and Freshwater Habitat due to poor planning and indiscriminate habitat destruction leading to loss of faunal habitat whilst reducing species occupancy in the impacted areas. - Proliferation of AIP species that colonise in areas of increased		- Monitor edge effects to ensure connectivity is not compromised; rehabilitate disturbed areas and prevent the spread of AIPs. - A rehabilitation plan must be prepared and implemented, and all rehabilitation actions adhered to, mitigating edge effects on the receiving environment. - Ensure no unnatural preferential flow paths are created; implement appropriate stormwater management and erosion prevention. - The development footprint should be demarcated, and it should be ensured that no construction-related activities take place outside of the demarcated footprint, most notably in the Freshwater Habitat and Secondary Grassland Habitat. - All areas outside of the planned footprint impacted by construction must be rehabilitated and reseeded with an indigenous seed mix. - Vegetation clearing should be conducted in a phased or slow-paced manner to allow fauna enough time to escape areas ahead of the clearance activities as far as possible. - Where bare soils are left exposed post construction activities, they should be immediately rehabilitated. - If reptiles are encountered during construction activities, harmless species should be carefully relocated by a suitably nominated construction personnel member. For larger and/or venomous snakes, a suitably trained professional or site		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
disturbances and that outcompete native plant species, leading loss of favourable faunal habitat outside of the direct development footprint, including a decrease in faunal species diversity, including potential SCC. • Dumping of construction material outside of the final infrastructure footprint, thereby leading to further habitat disturbance, which will promote the establishment and spread of AIPs leading to loss or degradation of favourable faunal habitat, diversity and potential SCC. • Additional pressure on faunal habitat, diversity and abundance associated with the development, contributing to: - Potential hunting/trapping/removal /collection of faunal species or potential SCC; and - Increased human activity will lead to the displacement and/or loss of potential faunal SCC contributing to the loss of faunal habitat and the loss of potential faunal SCC. • Ineffective rehabilitation of compacted areas, bare soils, or eroded areas leading to ongoing degradation of surrounding natural areas altering faunal habitat on an increased scale; and - Compaction of soils outside of the site due to indiscriminate driving of construction vehicles through natural		personnel should be contacted to assist in the relocation of individuals, should it not move off on its own. No reptiles are to be killed or harmed. • If any TOPS listed arachnids (Burrowing Scorpions) or aestivating amphibians are encountered, the relevant authorities are to be consulted as to the best way forward regarding safe handling and relocation of the unearthed individuals. • Edge effects stemming from construction activities, which may affect adjacent areas, need to be strictly managed, notably around the Freshwater Habitat. • No construction rubble or cleared alien invasive species are to be disposed of outside of demarcated areas and should be taken to a registered waste disposal facility. • No informal fires by construction personnel are to be allowed. • No hunting/trapping or persecution of fauna must be allowed. • As far as possible, vegetation clearance activities should be undertaken in the winter months, as faunal species will not be breeding and there is less risk to nesting avifauna. • Outside lighting should be designed to minimise impacts on fauna, especially invertebrates. Use of fluorescent, LED and mercury vapour lighting should be avoided, and sodium vapour (yellow) lights should be used wherever possible for outside lighting; and • Should any faunal SCC be encountered, construction should be halted, and a suitably qualified specialist consulted to help ascertain the best way forward.		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
vegetation leading to loss or degradation of faunal habitat, diversity, and potential SCC within the direct footprint of the proposed development.				
Topography Alteration of the topography part of the Ridge due to the need to level the site to enable construction. Also stockpiling of soil, building material debris and waste material on site.	20	- All stockpiles must be restricted to designated areas and are not to exceed a height of 2.5 metres. - Stockpiles are not to remain during the operational phase.	10	Low
Wetlands including groundwater and surface water Site clearing, commencement and construction of infrastructure leading to: - Compaction of soils, in turn potentially leading to increased runoff and erosion. - Potential sedimentation of the watercourses as a result of sediment laden runoff, leading to smothering of freshwater ecosystem vegetation and potentially altering surface water quality. - Disturbances of soils leading to increased alien vegetation proliferation, which may spread to the adjacent freshwater ecosystem habitat. - Potential hydrocarbon contamination of watercourse areas. - Potential altered flow regime as a result of solid waste disposal in proximity to the freshwater ecosystems and within	38	- Areas which are to be cleared of vegetation, including contractor laydown areas, must remain as small as possible, particularly in the site of the proposed development in order to reduce the risk of proliferation of alien vegetation, and in order to retain a level of protection to the watercourses during construction (e.g. sediment trapping, slowing of stormwater runoff etc.). - Contractor laydown areas and stockpiles must be established outside of the delineated watercourses and the applicable 15 m buffer area. - The development footprint areas must remain as small as possible and clearing of vegetation within the site must be kept to a minimum and only within areas under active construction (i.e. the entire plot of land should not be cleared of vegetation unless active construction is to commence. - Vehicles must be parked at the contractor laydown area on an impermeable surface. - Access to the site is available using existing roads and as such no indiscriminate movement of construction equipment is allowed within the watercourses.	24	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
the freshwater ecosystems themselves. • Potential altered water quality due to chemical waste disposal. • Potential decreased ecoservice provision and reduction of PES as a result of the abovementioned impacts. • Potential sediment laden runoff into the watercourse with disturbance of soil. • Potential loss/damage of additional freshwater habitat as a result of indiscriminate movement outside the demarcated footprint area. • Potential riverbank destabilisation as a result of road upgrading activities. • Disturbances of soil, potentially leading to increased AIP proliferation and altered freshwater habitat. • Potential for deterioration of water quality as a result of contaminated runoff from construction area to adjacent freshwater ecosystem environment. • Potential loss of hydraulic connectivity if flow obstructions are created during the construction process.		• Dust suppression measures must be implemented throughout construction to prevent excessive dust which may impact wetland vegetation. • Erosion control must be strictly implemented in all construction areas where soil is exposed. Sediment traps (i.e. Drifts fences/silt curtains or sandbags) should be used to prevent runoff from exposed soil into the adjacent freshwater environment. Waste management and pollution control: • All re-fueling and servicing of construction vehicles should be undertaken off-site. • Suitable waste disposal facilities must be provided. These facilities must be located outside of the delineated freshwater ecosystems and the associated 15 m buffer areas should be safely cordoned off and be out of sight (where possible) to limit the visual impact. • These facilities must regularly be emptied and taken to a registered waste disposal facility and waybill slip for the disposed waste must be kept in the onsite Environmental file. • An emergency spill response plan must be developed by the contractor to deal with any spills, especially in sensitive areas near the freshwater ecosystem boundaries. AIP control: • Monitoring for AIP proliferation within the site must be achieved through strict implementation of an Alien Invasive Management Plan throughout the construction period. • Should AIPs be identified, they must be removed and disposed of as per the development's alien and invasive species control plan, and the area must be revegetated with suitable indigenous vegetation. Measures for the crossing construction:		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
		- The construction activities must take place as far as possible along the existing road surface. - Flow must be always maintained in the stream channel during the construction process. Under no circumstances must construction related rubble, waste and soil be deposited inside the stream channel. - Erosion control must be strictly implemented for construction activities to occur within the delineated extent of the watercourse.		
Air Quality Construction activities have the potential to be sources of fugitive dust. These include: - Dust from access roads and areas cleared for construction. - Emissions from construction machinery and equipment. - Trucks transporting spoil material	12	- Dust suppression measures through regular application of water must be implemented. Water for this purpose must be used in quantities that will not result in run-off generation. - Adherence to speed limits on site roads to prevent the liberation of dust into the atmosphere must be enforced. - All site workers will need to wear the appropriate PPE to avoid any exposure to contaminated dust particles.	10	Very Low
Noise There is likely to be an increase in noise pollution due to, among others, the excavations and site clearing, construction vehicles and construction staff, operation of cement mixer machine at the site, blasting and or drilling.	15	- All equipment and activities to comply with noise regulations. - Silencer units in vehicles and equipment to be maintained in good working order. - Workers working in area where the 8-hour ambient noise levels exceed 85dBA must have the appropriate Personal Protective Equipment (PPE). - Work should be carried out between 7am and 5pm weekdays and 7am-2pm Saturdays. No work should be carried out during Sundays or holidays	10	Low
Visual Intrusion & Light pollution - Unkempt site due to littering and illegal dumping on site and surrounding areas. - Removal of vegetation may cause visual intrusion.	15	All rubbish and excess rubble, including excess soil and bedrock, are to be removed to a registered waste disposal facility. A certificate of disposal must be obtained for any waste that is disposed of.	10	Very Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
- Unsightly construction waste pile may be visually intrusive. - Lights from the contractor's camp and the construction site could be visually intrusive.		- Refuse bins must be provided on-site, and these must be emptied regularly. - The location of the construction camp must be carefully selected so that the camp is not visually intrusive. - Indigenous plants or trees not affecting the pipeline alignment must be retained to provide screens. - Light pollution should be minimised. Lighting is to be sufficient for safety and security purposes but shall not be intrusive to neighbouring residents and disturb wildlife. - Should overtime/night work be authorised, the Contractor shall be responsible for ensuring that lighting does not cause undue disturbance to neighbouring residents. In this situation, low flux and frequency lighting shall be utilised.		
Waste management: Waste generation during the construction phase will hurt the environment, if not controlled adequately. Waste streams will likely include domestic waste, spent grinding material, mixed concrete, paint cans and brushes, construction rubble and other construction waste.	16	- General waste should be placed in watertight containers and disposed of regularly. - Records of all waste taken off-site and disposed of must be kept as evidence. - Building rubble must be re-used, where possible. Excess rubble must be disposed of at an appropriate site. - Burning of waste material will not be permitted. - Spillages of hazardous substances must be cleaned up using absorbent material provided in spill kits on site. They must be disposed of together with other hazardous material at a hazardous waste landfill. Absorbent materials used to clean up spillages should be disposed of in a separate hazardous waste bin. - The storage area for hazardous material must be concreted, bunded, covered, labelled and well-ventilated. - Employees are to be provided with appropriate PPE for handling hazardous materials.	10	Low
Traffic Additional traffic will be generated from construction vehicles and heavy vehicles	20	Caution to be taken to ensure construction vehicles are not parked in such a way as to block through/passing traffic.	10	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
delivering materials to the site.		• Proper and adequate lanes to allow for ingress/egress to be provided.		
Safety and Security A construction site can be a dangerous place and thus could result in harm to people and property and by their nature act as a magnet to the unemployed, resulting in large numbers of people gathering around the site.	16	• The site camp is to be fenced off to prohibit unauthorised entry. • Health and Safety Officer to be appointed to monitor the safety conditions during construction continuously. • All construction staff must have the appropriate PPE. • Staff handling chemicals or hazardous materials must be trained in using the substances and the environmental, health and safety consequences of incidents. • Access to fuel and other equipment stores is to be strictly controlled. • Record and report any environmental, health and safety incidents to the responsible person. • Signage should be erected to warn of construction activities. • All structures that are vulnerable to high winds must be secured. • The basic spill control kit must be available at each construction camp within the site. • The Contractor is to always ensure traffic safety and shall implement road safety precautions for this purpose. • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • Before commencing any work, all workers shall be appropriately briefed about the EMP and relevant occupational health and safety issues. • Adequate emergency facilities must be provided to treat any emergency on site. Emergency procedures must be available on-site and communicated to all.	10	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
		The nearest emergency service provider must be identified, and Emergency contact numbers will be displayed conspicuously at prominent positions		
Disruption to Road Users & Road Infrastructure	22	- Access to the construction area must be predetermined and used during constructions. - The working area (disturbance corridor) and all exposed trenches must be fenced off with barrier netting, danger tape & droppers. - Excavated earth material should not be dumped/ stockpiled in the road in any way that will obstruct traffic flow. - Warning signage must be erected as appropriate to warn road-users of the presence of construction workers and construction vehicles.	12	Low
Impacts to Cultural/Historical Resources	10	Any artefacts or cultural resources encountered during construction must be preserved and removed with the assistance of a qualified specialist	10	Low
Employment /job opportunities created. Construction activities will result in the creation of some job opportunities.	30 +ve	No mitigation required	30 +ve	
OPERATIONAL PHASE				
Fauna and flora - Permanent transformation of floral habitat may occur where post-construction rehabilitation is inadequate or fails to establish a stable indigenous vegetation cover, leading to persistent bare patches, soil disturbance, and reduced ecological function. - Poorly controlled AIP re-establishment may continue to degrade natural vegetation surrounding the development.	15	- No dumping of litter or construction material on-site or within surrounding natural habitats. - Strictly manage edge effects arising from the development, such as erosion, soil compaction, and the proliferation of AIPs, to minimise impacts on adjacent natural areas. - Particular attention should be given to AIPs listed in the NEMBA Alien Species Lists (2020) in accordance with the NEMBA Alien and Invasive Species Regulations (2020). - Implement ongoing AIP monitoring and control throughout the operational and maintenance phase, with a focus on roads, open spaces, and landscaped areas where AIPs could spread into adjacent natural habitats.	10	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
- Long-term erosion and stormwater-related degradation may occur where stormwater systems are undersized, poorly maintained, or fail to include appropriate energy dissipation structures (e.g., berms, contour trenches, dissipaters). Concentrated runoff may cause gully erosion, channel incision, or sedimentation in wetlands, leading to irreversible habitat loss. - Poor maintenance of stormwater culverts, drains, and retention structures may result in the alteration of natural hydrological processes. This may cause wetland desiccation, prolonged waterlogging, or localised flooding, all of which degrade floral habitat and contribute to long term fragmentation, particularly within ESA habitat. - Continued human presence within the development may lead to opportunistic removal or harvesting of indigenous flora (including medicinal species, geophytes, and protected species), contributing to declining species diversity and further habitat degradation. - Permanent loss of faunal habitat, diversity and potential SCC, and a higher likelihood of edge effect impacts on adjacent and nearby natural faunal habitat. Further reduction of available habitat in the long-term, compounding the limiting factors to faunal		- Landscaping within the development footprint must prioritise locally indigenous plant species and avoid species listed under NEMBA or known to be invasive in the region. - Irrigation practices must be managed to prevent artificial wetting of adjacent natural habitats, which may promote AIP establishment. - Maintain buffer zones around sensitive habitats, including Freshwater Habitat and ESA habitats, to preserve vegetation structure and ecological function. - Prohibit the collection or removal of protected species within adjacent natural habitats outside of the development footprint. - Monitor relocated species for a minimum of three years, or until establishment is confirmed; and compile and submit SCC monitoring reports. - Edge effects arising from the proposed development, such as erosion and alien plant species proliferation, which may affect adjacent natural areas, need to be strictly managed, especially for the Freshwater Habitat. - Rehabilitation efforts should be monitored continuously during the operational phase until natural processes restore ecological functioning and biodiversity in the surrounding and open space areas. - No dumping of litter or waste must be allowed on-site or in the adjacent or surrounding habitats (i.e., Freshwater and Secondary Grassland Habitat). - Residents need to be educated and informed about local wildlife and fauna in the surrounding areas (notably the Freshwater and Secondary Grassland Habitat). - No hunting/trapping or persecution of fauna must be allowed in the surrounding areas. - The recreational use of the remaining habitats within the wetland buffer must be limited as far as possible, especially pertaining to the potential presence of domestic pets (i.e., dogs); and		

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
assemblages. Degradation of favourable habitat and limited potential for faunal re-colonisation leading to loss of faunal habitat and diversity within the local area.		If reptiles or arachnids are encountered, harmless species should be carefully relocated by a suitably nominated community member. For larger and/or venomous snakes, a suitably trained professional should be contacted to assist in the relocation of the species. No reptiles or arachnids are to be killed or harmed		
Wetlands - Increased catchment yield and altered flow regime may lead to changed wetland zonation, and possible impacts on vegetation as a result. - Potential local changes to the water retention patterns, timing and flows of watercourses. - Potential unattenuated discharge of stormwater into the receiving environment, potentially leading to sedimentation and erosion of the receiving environment. - Potential soil and water contamination by waste and hydrocarbons from vehicles. - Potential eutrophication of the freshwater ecosystems as a result of increased nitrates and phosphate loads from untreated effluent (from the sewer infrastructure) due to potential leakage of the pipelines in the event of a leak or damage to the pipeline infrastructure. - Altered breeding and feeding habits of fauna as a result of disturbance. - Potential decreased ability of the	30	- To increase the socio-economic value of the freshwater habitat, it is proposed that the wetland areas be instated as green spaces, with benches/picnic areas and recreational facilities to encourage low-impact recreational utilisation of the space. - This will add incentive for the upkeep and maintenance of the open space areas and add value to the development rather than representing unused and unsightly areas on the property. - Some sporadic shade trees may be planted outside the immediate wetland extents, although only native species (e.g. <i>Celtis africana</i>, <i>Combretum erythrophyllum</i> and <i>Searsia lancea</i>) must be planted. - The planting of invasive groundcover species such as Kikuyu (<i>Cenchrus clandestinus</i>) must be avoided. - The outlet structures from stormwater pipes must be at ground level so as to prevent erosion and gully formation. Suitable engineering solutions (such as a concrete apron or gabion mattress) should be utilised at all outlet structures. - The outlet structure should have cobbles from the release point for a minimum of 5 m to assist in energy dispersal and dispersal of water across the attenuation pond. - Regular inspection of the stormwater outlet structures, and attenuation ponds should be undertaken (specifically after large storm events) to monitor the occurrence of erosion. If erosion has occurred, it should immediately be rehabilitated through stabilisation of the embankments and revegetation.	20	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
watercourses to provide ecosystem services. Potential degradation of watercourse habitat.		- It is recommended that the managing authority test the integrity of sewer pipelines at least once every five years or more often should there be any sign or reports of a leak. - Should a blockage occur, all possible steps must be taken to prevent the pollution of the nearby watercourses during repair, including the placement of sheeting around the manhole used for access as well as containment barrels for any effluent withdrawn. - An emergency plan should be compiled to ensure a quick response in case of a leakage or bursting of the pipeline. - All mitigation measures relating to the construction phase also applies to the operational phase of the project. - Only existing roadways should be utilised during maintenance activities to avoid indiscriminate movement of vehicles within any of the freshwater ecosystems. - As far as possible, the recommended 15 m buffer area should be implemented around the watercourses and must be revegetated with indigenous terrestrial vegetation where vegetation may have been lost during construction or during maintenance activities - A Rehabilitation Maintenance and Management Plan must be developed to include site specific details for the rehabilitation requirements. AIP control: - An Alien Invasive Plant (AIP) management plan should be developed and implemented following construction.		
Waste management Generation and disposal of waste from operations	20	Domestic waste should be placed in watertight containers and disposed of regularly.	10	Low

Potential impacts:	Significance rating of impacts	Proposed mitigation:	Significance rating of impacts after mitigation	Probability of mitigation not being implemented
Traffic Increase in traffic on local roads- Le Roux Avenue/Springwell Avenue Road.	15	- Appropriate upgrades of the roads and traffic signals, intersections to minimise inconvenience and improve traffic flows - All signage and road should be in accordance with the South African Road Traffic Signs Manual".	10	Low
Visual Intrusion & Light - Littering and n the school and surrounding areas which can affect the visual character of the facility. - Inappropriate lighting used	28	- Litter patrols should be done frequently to ensure a clean environment. - Light pollution should be minimised. Lighting in the school is to be sufficient for safety and security purposes but shall not be intrusive to neighbouring residents. - Outside lights will have to be downward shining (eyelid type) shielded in such a way as to minimise light spillage and pollution beyond the extent of the area that needs to be lit.	14	Low
Safety	16	The safety of the public must be maintained through adequate lighting and patrols by security personnel	8	Low
Noise	10	A noise control policy must be compiled and enforced to control noise at the school.	8	Low
Energy Consumption	20	Renewable energy options and/or alternative energy sources to be included under the conditions of establishment.	12	Low
Provision of educational facilities	38 +ve	No mitigation required	38 +ve	
Compliance with spatial plans	20	No mitigation- The development is aligned with municipal and provincial spatial plans	20	
Services provided	10	Bulk infrastructure and roads constructed in the area	10	
Contribution to municipal tax base	15	No mitigation required	15	
Employment opportunities	30 +ve	No mitigation required	30 +ve	

Alternative 1

(REPEAT THIS TABLE FOR EACH ALTERNATIVE)

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

No Go

Potential Impacts:	Significance rating of impacts	Proposed mitigation	Significance rating after mitigation	Risk of mitigation not being implemented
Geology and soils	+ve	Landowner to manage erosion on site	+ve	Medium
Fauna and flora	+ve	No disturbance of fauna and flora. Continued clearance of alien vegetation by landowner	+ve	Medium
Topography	+ve	No Impact	+ve	
Wetland	+ve	No Impact	+ve	Low
Air Quality		No Impact		
Noise		No Impact		
Visual & Light pollution		No Impact		
Waste management		No Impact		
Traffic		No Impact		
Disruption to road users & Road infrastructure		No Impact		
Impact to cultural/Historical Resource		No Impact		
Safety security	-ve	Provide security measures by e.g. improving lighting	-ve	
Employment/job opportunities created. No job opportunities will be created	-ve	Alternative sources of employment to be investigated and implemented	-ve	High
Contribution to the municipal tax base	-ve	Municipal to increase levies on Agricultural Holdings	-ve	Very low
Alignment with spatial plans	-ve	Plans to be amended to align with open space provision	-ve	Very low
Provision of an educational facility	-ve	Densify other areas	-ve	Very high

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

- Ecological Impact Assessment

- Wetland Impact Assessment
- Town Planning Memorandum
- Outline Service Report (Water and Sewer)

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

All the information provided in this report by the applicant and specialist is valid and accurate.

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

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

Proposal

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
The proposal is for the educational facility establishment. Therefore, no closure/decommissioning is anticipated. As a result, no such assessment can be undertaken at the moment. However, should decommissioning be required, the requirements of applicable laws and regulations then will be adhered to.				

Alternative 1

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

Alternative 2

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

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

N/A

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

N/A

4. CUMULATIVE IMPACTS

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

Cumulative impacts refer to the incremental impacts resulting from the implementation of an activity on a common resource which are added to the impacts of other past, present or reasonably foreseeable future activities. The potential cumulative impacts of the school both during construction and operation considered the effects of the development relative to;

- The biophysical environment; and
- Socio-economic conditions

The proposed development will result in the loss of faunal habitat, primarily affecting several common and widespread species. Direct impacts associated with the development are expected to predominantly affect common occurring fauna. Indirect impacts on remaining natural habitats within the site, particularly the Freshwater Habitat, must be carefully managed to prevent significant adverse effects. Faunal species displaced from the development footprint are likely to persist within the surrounding area, and therefore, no significant population-level impacts are expected. No reason can be seen why, with the current proposed layout, the development should not be authorised provided that mitigation measures listed in this report are adhered to.

The site abuts a stream and wetland, therefore a 30m buffer is required for the protection of this system. Should storm water be not properly managed, then the discharge from the development will increase stormwater carried through the system.

Further, the development will increase the transformed areas (urban development footprint) and therefore contribute to the reduction of the amount of open space available within the urban fabric.

In terms of the socio-economic issues, the development will contribute to:

- Educational facilities to accommodate the ever-increasing demand for schooling in the urban environment
- Provision of employment opportunities during both construction and operational phases of the activity
- Increase to the tax base of the municipality
- Infrastructure provision in the area

Given the above, the development proposal, with all things being equal, will contribute to a loss of habitat, open space and a threatened/endangered ecosystem. However, the Ecological and Wetland Assessment shows that the site is of low ecological importance. Thus, the cumulative impacts of the development will not have a significant negative impact on the ecological fabric of the area if the proposed mitigation measures are strictly implemented. The socio-economic contribution is expected to be positive.

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

While the proposed development will result in the loss of faunal habitat, primarily affecting several common and widespread species, impacts within the site are not anticipated to be significant. Assessments confirmed that the implementation of mitigation measures will result in reducing negative impacts which are predominately of low significance while the positive impacts will be enhanced.

Should the development be approved, the highly sensitive areas will be protected, and, with rehabilitation, the wetland condition will improve and its natural hydrological cycle and conservation value will continue.

In summary, the overall benefits associated with the proposed development far outweigh the short term negative and floral impacts that may result from the development. If the recommendations in the EMPr are implemented and monitored, then the proposed development as outlined will not have negative impacts on society and the environment.

Alternative 1

--

Alternative 2

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No-go (compulsory)

The no-go option entails that the application site remains in its current state. The site is within an urban development zone, is not pristine. If left undeveloped, there is a possibility of the invasive alien species to further propagate, while human activities will continue to contribute to the degradation of the area. With the proposed development, it will be easier to control plant invaders, increase security in the area during operational phase and create job opportunities during the construction phase.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Impact	Significance after mitigation	
	Proposal (Alt 1)	No-Go
CONSTRUCTION		
Geology and soils	-ve	+ve
Fauna and flora	-ve	+ve
Topography	-ve	
Wetlands	-ve	
Air quality	-ve	
Noise	-ve	+ve
Visual Intrusion & Light pollution	-ve	-ve
Waste management	-ve	
Traffic	-ve	
Safety and security	+ve	-ve
Disruption to Road Users & Road Infrastructure	-ve	
Impacts to Cultural/ Historical Recourse	-ve	
Employment / job opportunities created	+ve	-ve
OPERATIONAL PHASE		
Fauna and flora	-ve	+ve
Wetland pollution from stormwater	-ve	+ve
Waste management	-ve	-ve
Traffic	-ve	
Visual Intrusion & Light pollution	-ve	
Safety	-ve	-ve
Noise	-ve	
Energy Consumption	-ve	
Provision of educational facilities	+ve	-ve
Compliance with Spatial plans	+ve	-ve
Services provided	+ve	-ve
Contribution to municipal tax base	+ve	-ve
Employment opportunities	+ve	-ve

For alternative:

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

The summary opinion of the proposed development is provided below as follows:

Bio-Physical Environment

The site shows some level of disturbance, with the grassland considered to have been affected by anthropogenic processes. With management measures, the negative ecological impacts will be low while the socio-economic benefits will be high.

With the protection and rehabilitation of sensitive areas including the removal of alien species along the wetland system, the ecological health of the system will improve.

Social Environment

- Educational infrastructure plays a critical role in shaping not only academic outcomes but also the social and psychological wellbeing of learners and the broader community.
- Schools serve as safe, structured environments that offer access to psychosocial support, early childhood development and sport and recreation.
- A well managed school contributes to a sense of place, fosters neighbourhood stability and strengthens local identity.
- Intensified urban development within the urban zone thereby contributing to avoidance of urban sprawl.
- Potential noise impacts during construction and operation as the area is opened for vehicular movement in the medium term.
- Dust and noise pollution during the construction phase on site. However, this will be managed to acceptable levels.

Economic Environment

- Employment opportunities will be created during both construction and operational phases of the project.
- A well-educated workforce enhances productivity and innovation, driving economic growth.
- Higher education levels correlate with increased incomes, leading to greater consumer spending and investment, thus, increasing the tax base during the operation phase.
- High order investment in the area contributes to economic growth and attractiveness of the area for more development.
- Education contributes to reducing extreme poverty and improving health, which are essential for sustainable development.

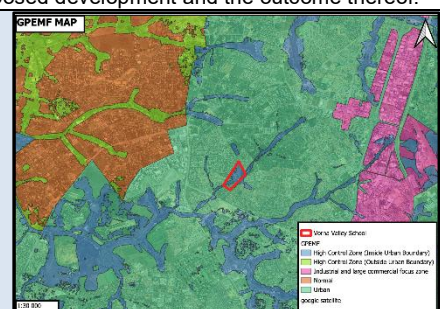
7. SPATIAL DEVELOPMENT TOOLS

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

The GPEMF has been developed to determine geographical areas where certain activities can be excluded from an EIA process.

One of the key motivations for the GPEMF is to streamline environmental impact management in Gauteng in a manner that would:

- Contribute to the City Region's urban development goals of densification, limiting urban sprawl, limiting



development pressure on rural areas and achieving better economies of scale for public services; and

- Release capacity in government to focus on the important environmental aspects of protection of natural resources, water quality management and enforcement, air quality management and enforcement as well as proactive engagement in making development more sustainable.
- NEMA provides for the exclusion of listed activities in terms of the EIA Regulations, 2014, as amended. Activities are only proposed for exclusion in EMZs 1 and 5. Conditions for exclusion are as follows:
 - Ensure that there are no wetlands and/or rivers on the site that will be affected.
 - Ensure that adequate stormwater retention is provided.
 - Indicate how the relevant general guidelines as indicated have been incorporated in the design and construction of the development or land use.
 - Exclusion from the EIA process does not exclude the proposed development or land use from complying with the requirements of any other legislation.

In terms of the EMF, the site is within Zone 2, the High Control Zone inside the urban boundary; however, the proposed development aligns with:

- The City of Johannesburg Metropolitan Municipality's Spatial Development Framework 2040, in which, educational facilities are a form of social infrastructure, essential elements of the urban fabric that must be integrated into development to promote access, inclusivity and community cohesion..
- The City of Johannesburg Metropolitan Municipality's Regional Spatial Development Framework 2010/2011, ensuring that the development is consistent with regional spatial planning directives.

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

N/A

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:

- Requirements of other applicable laws must be complied with.
- The provisions of the EMPr and mitigation measures in the specialist reports must be adhered to.
- An independent Environmental Control Officer (ECO) must be appointed to monitor all construction activities and to ensure that the contractor and sub-contractor comply with the EMPr.
- Prior to commencement with development a survey must be conducted to rescue any threatened species within the development footprint.
- Construction infrastructure, including the construction camp, to be erected within an area that will result in the least environmental impacts.
- Sensitive areas as well as the buffer zones must be fenced off to prevent any uncontrolled access during construction. A professional ecologist or landscape architect must form part of the rehabilitation team.

- A professional landscape architect must be appointed to assist with the implementation of Landscape Development Plan (LDP).
- Areas susceptible to erosion must be protected by installing the necessary protective materials.
- Waste recycling to be promoted and, where possible construction waste should be recycled or reused while waste is to be disposed of at licensed disposal facilities.
- A proper storm water management plan approved by the City of Johannesburg must be implemented for the project.
- Should any culturally significant artefacts/ graves be found during construction, the affected site to be cordoned off and an assessment be done before proceeding with construction.
- All reasonable precautions must be taken to minimise the noise generated on-site.
- Construction vehicles must be in good working order to avoid excessive noise and pollution.
- Non-hazardous material should be recycled and utilised in other construction processes.
- After the construction, any soil compaction and spillages of substances within the construction camp must be rehabilitated.

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT (AS PER NOTICE 792 OF 2012, OR THE UPDATED VERSION OF THIS GUIDELINE)

The proposed Kyalami Hills Extension 26 development project is an educational facility that will be located on Portion 73 (a portion of Portion 9) of the farm Bothasfontein No. 408, Registration Division J.R., Province of Gauteng,

The demand for quality education, particularly within metropolitan and urban growth areas, far exceeds the current supply, placing enormous strain on existing public schools and educational facilities. In this context, the development of the proposed educational facility is both necessary and desirable.

Schools and associated educational services are vital in areas experiencing population growth and residential densification. As the surrounding Kyalami Estates, Willaway, Vorna Valley, Kyalami Hills and Kyalami Gardens townships continue to evolve and expand, the strain on existing educational facilities has become increasingly apparent. The proposed educational facility will help relieve pressure on oversubscribed institutions and will directly respond to the educational needs of families residing in surrounding medium and high-density residential developments.

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

The EA is required for at least ten (10) years. Should a longer period be required, the applicant/EAP will be required to provide detailed motivation on the validity period.

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR) (MUST INCLUDE POST CONSTRUCTION MONITORING REQUIREMENTS AND WHEN THESE WILL BE CONCLUDED.)

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

EMPr attached

Yes

SECTION F: APPENDIXES

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

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

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

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

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

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

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

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

APPENDIX A: SITE PLAN AND LAYOUT





PROPOSED KYALAMI HILLS EXTENSION 26



PROJECT NAME

PROPOSED KYALAMI HILLS EXT.26

DRAWING TITLE

LOCALITY PLAN

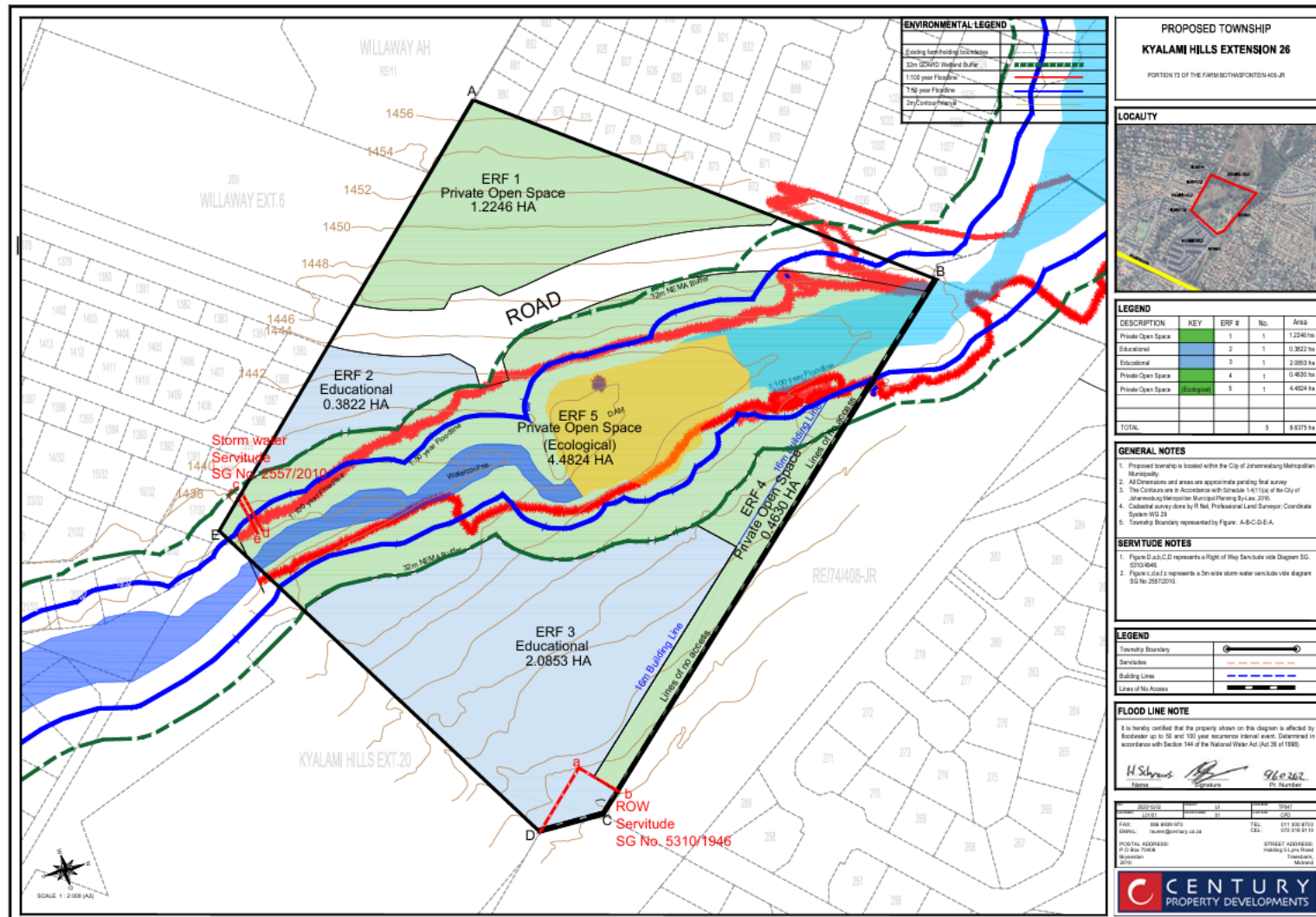


Century Property Developments
5 Lynx Road, MIDRAND
Tel: +27(11) 300-8700
lauren@century.co.za
www.century.co.za

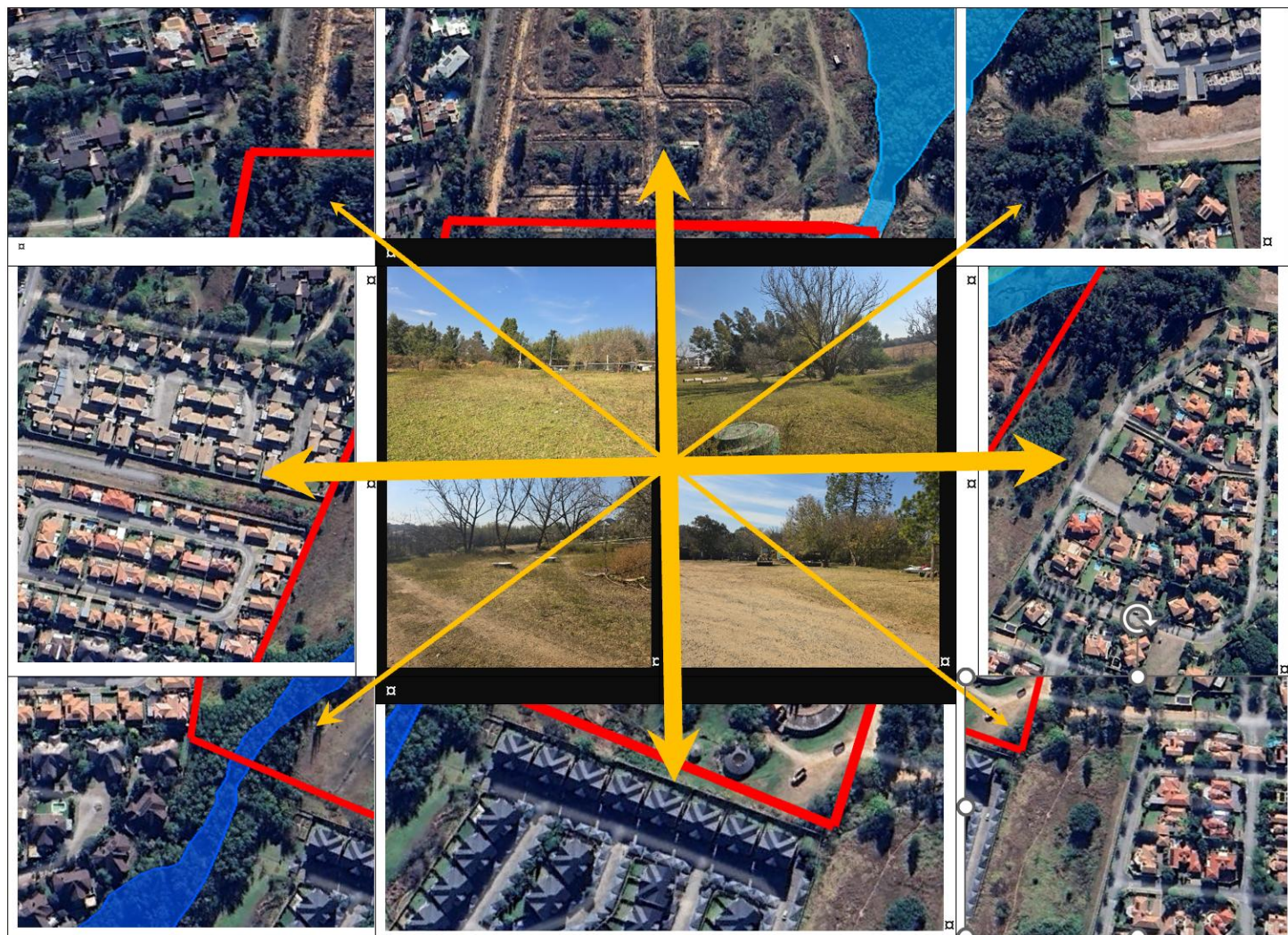
SCALE	DATE	DRAWN BY:
No Scale	2025/12/06	UI
PROJECT NUMBER	DRAWING NUMBER	REV
TP100	01	A

A1: LOCALITY MAP

A2: LAYOUT MAP



APPENDIX B: PHOTOGRAPHS



APPENDIX C: FACILITY ILLUSTRATION(S)

N/A

APPENDIX D: ROUTE POSITION INFORMATION

N/A

APPENDIX E: PUBLIC PARTICIPATION INFORMATION

- E₁: Proof of Site Notices
- E₂: Written Notices Issued
- E₃: Newspaper Advert
- E₄: Communication with I&As
- E₅: Minutes of Meetings
- E₆: Comments and Issues Report
- E₇: Comments from I&As on BAR
- E₈: Comments from I&As on amended BAR
- E₉: Copy of Register of I&As

To be included in the Final BAR

**APPENDIX F: WATER USE LICENSE(S) AUTHORISATION, SAHRA
INFORMATION, SERVICE LETTERS FROM MUNICIPALITIES, WATER
SUPPLY INFORMATION**

N/A

APPENDIX G SPECIALIST REPORTS

Appendix G₁ : Terrestrial Biodiversity Assessment A
Appendix G₂: Terrestrial Biodiversity Assessment B
Appendix G₃: Terrestrial Biodiversity I Assessment C
Appendix G₄: Wetland Assessment
Appendix G₅: Wetland Rehabilitation Plan
Appendix G₆: Heritage Impact Assessment Report
Appendix G₇: Water and Sewer Services Report
Appendix G₈: Roads and Stormwater
Appendix G₉: TIA
Appendix G₁₀: Geotech Report
Appendix G₁₁: Town Planning Memorandum

APENDIX H: EMPR

APPENDIX I: OTHER INFORMATION

I1: Details of EAP

I2: Screening Tool Report