

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

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. **A draft Basic Assessment Report must be submitted, 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 (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
6. 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.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **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 being refused.**
10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the of the Environmental Affairs Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
Ground floor, Umnotho House, 56 Eloff Street, Johannesburg
Email Address: bongani.shabangu@gauteng.gov.za

Administrative Unit telephone number: (011) 240 3377/3051
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.

A Closure Plan is not applicable to this project as the activity is related to an existing stormwater system within an existing office park.

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?

This is the draft Basic Assessment (BA) Report – all stakeholders have the opportunity to comment on this report from 07 June 2021 to 07 July 2021. All comments received will be included in the final BA Report as per regulations.

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SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

Constantia Kloof Stormwater Silt and Litter Management Project in Roodepoort, Johannesburg.

Select the appropriate box

The application is for an upgrade of an existing development



The application is for a new development



Other, specify

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

☒ YES ☐ NO

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

Section 21 (c) & (i) of the National Water Act (Act No. 36 of 1998) (NWA) administered by the Department of Water Affairs (DWA).

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
National Water Act, 1998 (Act No. 36 of 1998)	National & Provincial	1 October 1998

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

Legislation, policy or guideline	Description of compliance
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	The National Screening Tool indicated a high combined heritage and archaeological sensitivity. A Heritage Impact Assessment was therefore conducted according to this Act.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	This Act was consulted due to the proposed silt and litter management and upgrades of the stormwater system. However, it was deemed to be compliant without the need for a Waste Management License application.
National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)	No protected areas will be affected by the project.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Based on the National Screening Tool, the proposed site falls partially within areas of Low Aquatic Biodiversity sensitivity with a corridor of very high sensitivity running through the centre. A watercourse study was therefore conducted to assess the area.

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

Due to the fact that the proposed project is an upgrade of existing infrastructure within a built environment (office park), selecting alternative sites was, for obvious reasons, unfeasible and therefore not applicable.
Design alternatives were presented to the developer and a phased approach was taken in assessing alternatives for feasibility. Such alternatives are presented in the table below.

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	Preferred alternative:	<p>The following scope is proposed at the preferred alternative:</p> <ul style="list-style-type: none">• Capturing litter through the implementation of a litter trap at the upstream stormwater inlet to the site;• Aiding sediment transport and reducing deposition through channel modifications to the stream bed; and• Construction of an outlet structure at the downstream end to manage erosion (incl. the replacing of the existing failing gabion stricture) and improving the security at the downstream property boundary.
2	Design alternative 1:	<p>Alternative 1 is consistent with the implementation of the preferred alternative scope but includes the installation of a new outlet structure with a silt trap. This alternative scope is:</p> <ul style="list-style-type: none">• Capturing litter through the implementation of a litter trap at the upstream stormwater inlet to the site;• Aiding sediment transport and reducing deposition through channel modifications to the stream bed; and• Construction of a silt trap /outlet structure at the downstream end to capture the silt (for collection and removal) and to manage erosion at the system outlet (incl. the replacing of the existing failing gabion stricture). <p>The silt trap / outlet structure was initially envisaged to reduce the silt load of the water exiting the office park. On further review, the silt capturing capability of the</p>

		outlet structure was however deemed impractical due to the required size thereof and the maintenance issues related to silt removal. The slit trap is considered non-essential as the Constantia Kloof Office Park does not generate the silt on site but is contained in the stormwater run-off from the upstream catchment. The improvement of the water/silt quality will remain an objective of the Project. However, these quality improvements will be achieved through the efficient transport of silt through the system as per the preferred alternative scope.
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In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

N/A

4. PHYSICAL SIZE OF THE ACTIVITY

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

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

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the activity:

23 ha

23 ha

N/A

Ha/ m²

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Length of the activity:

N/A

N/A

N/A

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:

7 ha

7 ha

N/A

Ha/m²

5. SITE ACCESS

Preferred alternative:

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

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

Describe the type of access road planned:

YES NO

m

This is an existing office park therefore existing access is available. No new roads are proposed.

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?

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

Describe the type of access road planned:

YES NO

m

This is an existing office park therefore existing access is available. No new roads are proposed.

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?

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

YES NO

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

1

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

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

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

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

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

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

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.

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 – NOT APPLICABLE

- 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)

NOTE: NO LOCATION / ROUTE ALTERNATIVES ARE PROPOSED AS THE PROJECT IS AN EXISTING STORMWATER SYSTEM WITHIN AN EXISTING OFFICE PARK

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

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

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

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

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

1. PROPERTY DESCRIPTION

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

- Erf 4499 Weltevredenpark, Extension 70, Registration Division IQ. Gauteng.
- Erf 4500 Weltevredenpark, Extension 70, Registration Division IQ. Gauteng.

The activity will take place in the existing Constantia Kloof Office Park in Roodepoort, Johannesburg, adjacent to the N1 Western Bypass and Hendrik Potgieter Avenue. To the south runs 14th Avenue / William Nicol Drive.

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.

Note: only one centre point co-ordinate provided as there are no site alternatives.

All Alternatives:

Latitude (S):	Longitude (E):
26°8'48.60" S	27°55'35.00" E

In the case of linear activities:

All Alternative:

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

Latitude (S):	Longitude (E):
26°8'58.35" S	27°55'28.32" E
26°8'48.60" S	27°55'35.00" E
26°8'39.88" S	27°55'45.44" E

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

N/A

The 21 digit Surveyor General code of each cadastral land parcel

PREFERRED	T	O	I	Q	0	4	6	7	0	0	0	0	4	4	9	9	0	0	0	0
	T	O	I	Q	0	4	6	7	0	0	0	0	4	5	0	0	0	0	0	0
ALT. 1																				
ALT. 2																				
etc.																				

NOTE: NO LOCATION ALTERNATIVES ARE PROPOSED, THEREFORE LAND PARCELS REMAIN THE SAME FOR BOTH ALTERNATIVES.

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
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4. LOCATION IN LANDSCAPE

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

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

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

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

YES	NO
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
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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
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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.

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

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:

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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:

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Are there any special or sensitive habitats or other natural features present on the site? ☐ YES ☐ NO
 If YES, specify and explain:

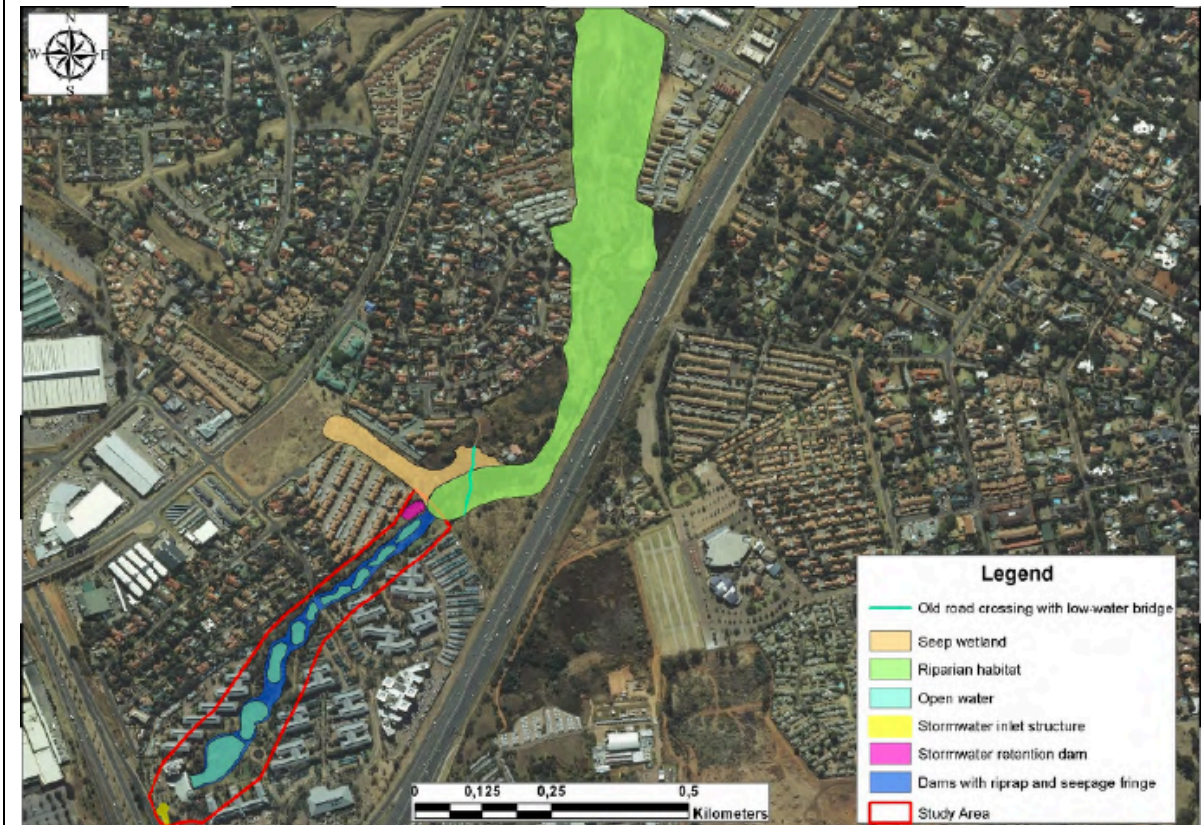
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Sections of very high terrestrial biodiversity combined sensitivity areas at the North-North Eastern corner of the office park associated with the watercourse into which the office park's stormwater system flows.

A critical biodiversity area and ecological support area borders on the North-North Eastern corner of the site.

An important area according to the C-plan, also bordering on the North-North Eastern corner of the site.

NOTE: All the above-mentioned sensitivities border onto the existing office park and are related to the watercourse into which the stormwater system flows. See below figure which illustrates the proposed site position in relation to the sensitive areas.



Was a specialist consulted to assist with completing this section

YES

NO

Watercourse Study:

If yes complete specialist details

Name of the specialist:

L.E.R. Grobler (Imperata Consulting)

Qualification(s) of the specialist:

M.Sc (Botany), Wetland Ecologist, Pr.Sci.Nat

Postal address:

P.O.Box 72914, Lynnwood Ridge

Postal code:

0040

Telephone:

012 365 3217

Cell:

082 606 7770

E-mail:

retiefg@gmail.com

Fax:

Not Available

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:

Date:

Note: Please refer to specialist reports for signed declarations

Heritage Impact Assessment:

Name of the specialist:

Qualification(s) of the specialist:

Dr Udo S Küsel (African Heritage Consultants)

BA Archaeology, Anthropology and Indigenous Law, University of Pretoria 1966
 MA Archaeology, University of Pretoria 1975
 D. Phil, University of Pretoria 1988
 Post-Graduate Diploma in Museum and Heritage Studies

Postal address:

P.O.Box 652, Magalieskruin

Postal code:

0150

Telephone:

012 567 6046

Cell:

082 498 0673

E-mail:

udo@nconnect.co.za

Fax:

086 594 9721

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:

Date:

Note: Please refer to specialist reports for signed declarations**Geohydrological Assessment:**

Name of the specialist:

L.Stroebe

Qualification(s) of the specialist:

Geohydrologist

Postal address:

P.O.Box 74381, Lynnwood Ridge

Postal code:

0040

Telephone:

012 427 2000

Cell:

Not available

E-mail:

tshwane@zutari.com

Fax:

086 556 0521

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:

Date:

Note: Please refer to specialist reports for signed declarations

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					
	25	14	8	8	2	
	25	8	13	2	13	
WEST	25	13	2	13	13	EAST
	25	13	17	13	25	
	25	25	25	25	25	
	SOUTH					

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

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

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

YES	NO
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Watercourse Study
Heritage Impact Assessment
Geohydrological Assessment
Note: Although the presence of major roads is indicated, it was determined that there is no need for a traffic impact assessment as no new development is proposed. The activities will involve the upgrading of an existing stormwater system within an existing office park. It is therefore not expected to result in an increase or decrease in traffic in the area.

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 following information has been retrieved from the City of Johannesburg's Integrated Development Plan (IDP).

Gauteng is the fastest growing province in the country with Johannesburg contributing an estimated 5.05 million people to the total population of the province. Currently, there are at least 3000 people migrating into the city every month. The influx of migration has contributed to a city population growth rate averaging 3% over the past 10 years. This is double that of the national average, with Johannesburg's population doubling since 1996. It is estimated that Johannesburg's population could reach 5.3 million by 2021.

Johannesburg is South Africa's largest metropolitan municipality in terms of population, size and diversity of its economy (contributing around 15% of national Gross Domestic Product (GDP) in 2016). The city also provides the highest number of jobs when compared with other cities in the province (2.04 million employed people which is 41.64% of the total employment in Gauteng).

The Roodepoort area falls within Region C of the City of Johannesburg.

Roodepoort and its surrounding suburbs are mainly residential areas, with lower levels of economic growth compared to the central business areas of Randburg and Sandton. The region includes agricultural holdings in the north, mining in the south and commercial areas like Westgate, Constantia, Northgate, Princess Crossing and Laser Park.

Of the region's mature population of 225 000, 65 per cent are economically active and about 24 per cent are of school-going age. The majority of the adult population is in the middle to the high-income bracket, with many young working individuals and small families. Around 32 per cent of the population has a post-matric qualification.

A number of initiatives are in place to gentrify the Roodepoort central business district, which has suffered over the years from business flight to decentralised nodes around the region.

Though retail, commercial and office facilities exist, their presence is on a much smaller scale, catering just for the surrounding communities. It is hoped the area can also be revitalised through the provision of affordable housing.

Growth in residential and commercial activity has been much higher in and around areas to the west of the Westgate node, as well as in similar developments along Ontdekkers Road to the north of Westgate Mall.

Developments around Northgate Shopping Centre and the Coca-Cola Dome include quality office space and a hotel. The approved Millennium Centre and Panorama Office Park are part of the development around and to the west of the Constantia Basin office node and Hillfox Centre.

In addition, there is retail and office development around the Rock Cottage node on the corner of Christiaan de Wet Road and John Vorster Drive, and office park development south of the Olivedale Clinic off Jacaranda Road. There has also been a rise in office park developments in the region.

There is very little industrial development along the mining belt because of geotechnical constraints and pollution, with such developments concentrated in Laser Park.

The key issues identified in the region's Integrated Development Plan are the following:

- Unencumbered mining land offers a development opportunity within certain constraints;
- Urban decay of the areas south of the Johannesburg-Randfontein railway line, particularly around the Roodepoort CBD, is a serious problem;
- The north-south linkages within and through the region are weak;
- High levels of congestion resulting from under-use of the rail facility and high use of taxis;
- The cross-border linkages for significant public facilities, such as the Cradle of Humankind, are unclear;
- There is a need for housing in the south while land is available in the north;
- Increasing numbers of people are being housed in unhealthy and exploitative circumstances in the Princess AH area on main Reef Road through "shack farming"; and
- The region's low economic growth rate leads to low levels of employment creation and economic activity.

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:

The area of the proposed development was developed as a completely manicured landscape in the late 1980s to the early 1990s. The original works included the complete transformation and reshaping of the stream environment to create a series of ponds, cascades and water features as part of the landscaping around the commercial and office complex. Most of the exposed soils and boulders noted on site are anthropocentric in origin.

From both the desktop assessment and the field survey it is evident that this area has a low probability of containing heritage resources.

No heritage resources features, sites or artefacts of cultural significance were found during the survey conducted by the heritage practitioner on 28 February 2020.

No burial grounds or graves older than 60 years have been recorded during the HIA.

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
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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.

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.

All stakeholders have the opportunity to comment on this BA report from 29 June 2021 to 29 July 2021. All comments received will be included in the final BA Report as per regulations.

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

All stakeholders have the opportunity to comment on this BA report from 28 June 2021 to 28 July 2021. All comments received will be included in the final BA Report as per regulations.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

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

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from interested and affected parties

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

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
when appropriate)

1

times

(complete only)

Section D Alternative No.

PREFERRED

(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
50 m ³	

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

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

Solid waste will be collected in skips and disposed of at the nearest landfill site.

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

Solid waste will be disposed of at the Marie Louise Landfill on Dobsonville Road in Roodepoort. This is a Pikitup landfill site open to contractors for building rubble and soil and an initiative from the City of Johannesburg to combat illegal dumping (www.joburg.org.za).

Will the activity produce solid waste during its operational phase?

YES	NO
m ³	

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

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

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)?

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:

Building rubble removed from site may be used as backfill where possible and/or suitable.

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
m ³	
YES	NO

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

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

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

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

Yes	NO
m ³	

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

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

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

YES	NO
-----	----

If yes, provide the particulars of the facility:

Facility name:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Cell:

Fax:

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

The use of water is not applicable to this project as the project proposes to upgrade the current stormwater system to effectively manage silt and litter in the system.

Liquid effluent (domestic sewage)

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

YES	NO
m ³	
YES	NO

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

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

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

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

YES	NO
-----	----

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

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

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

YES	NO
YES	NO

The upgraded stormwater system is not expected to release any emissions into the atmosphere.

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

The proposed project requires a Water Use License for a Section 21 (c) and (i) water use.

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

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

YES	NO
YES	NO

3. POWER SUPPLY

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

The proposed project will not make use of any power supply.

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

Not applicable

4. ENERGY EFFICIENCY

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

No measures have been taken as the upgrading of the Constantia Kloof Office Park stormwater system does not relate to the use of energy.

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

No measures have been taken as the upgrading of the Constantia Kloof Office Park stormwater system does not relate to the use of energy.

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.

No issues have been received to date. After the commenting period, all issues received will be addressed in the final BA Report.

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

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

No issues have been received to date. After the commenting period, all issues received will be addressed in the final BA Report.

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

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

Please refer to the Methodology in the Impact Assessment Report attached in Appendix 12 for a detailed description.

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.

Impact descriptions have been added below. Please refer to the Impact Assessment Report attached in Appendix 12 for a detailed description of identified impacts.

Preferred 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
Spread of alien/invasive vegetation	Low	The entire existing site is completely modified to a landscaped environment. Therefore, no mitigation for the site itself is proposed. However, to prevent the downstream spread of alien/invasive species: <ul style="list-style-type: none">Protect stockpiles of topsoil and subsoil material with silt fences that should be maintained during the entire construction phase on site.Locate stockpiles outside of the 5 m buffer and not on slopes with a gradient greater than 1:3.	Very low	Negligible
Visual impact – Construction phase	Low	<ul style="list-style-type: none">All stores, stockpiles, toilets and areas where construction workers are expected to gather (for lunch, as an example) are to be	Very low	Low

		<p>obscured from view using an appropriate material such as shade cloth.</p> <ul style="list-style-type: none"> • Locate such areas away from the view of business customers (where possible). • Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. • No labour camps allowed on site. 		
Visual impact – Operational phase	Moderately positive	<ul style="list-style-type: none"> • Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. • All construction rubble, debris, machinery and materials are to be removed from site as soon as construction activities have been completed. 	Very high positive	Low
Increased sedimentation	Low	<ul style="list-style-type: none"> • Protect stockpiles of topsoil and subsoil material with silt fences that should be maintained during the entire construction phase on site. • Locate stockpiles outside of the 5 m buffer and not on slopes with a gradient greater than 1:3. • Create and maintain a temporary sediment control structure, such as a retention basin, within the existing gabion weir drop inlet structure. • The use of silt fences are more important during the summer months (rainy season) and would require more regular maintenance during this time. • Any dewatering that needs to be done from excavated areas during the construction phase should be released into a silt bay that is maintained in order to trap and remove sediments before they 	Very low	Medium

		enter watercourse habitat.		
Potential contamination of water	Moderate – negative	<ul style="list-style-type: none"> • Use toolbox talks to highlight potential pollutions sources within the study area, specifically avoid unnecessary vehicle access in the watercourse. • Ensure the availability and upkeep of spill kits on site. • Make use of drip trays for all machinery being used on the banks of the watercourse. • Any dewatering that needs to be done from excavated areas during the construction phase should be released into a silt bay that is maintained in order to trap and remove sediments before they enter watercourse habitat. • Check vehicles regularly for oil leaks and only refuel in designated areas (located outside of the watercourse and buffer area). • Provide clearly marked bins for litter and the discard of other waste materials. • Provide and maintain portable toilets during the construction phase and keep them outside of the watercourse and buffer area. 	Low Negative	Medium
Sludge/Silt discharged into the river	High negative	<ul style="list-style-type: none"> • The silt dredged from the stormwater system in the office park must be removed from site and appropriately disposed of. 	Low	High
Disturbance of heritage resources	Very low	<ul style="list-style-type: none"> • In the event that any sub-surface heritage resources or graves are unearthed all work has to be stopped until an assessment as to the significance of the site (or material) in question has been made by a heritage practitioner. Note that no archaeological material that has been uncovered may be removed. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development, the procedures and 	Very low	Low

		<p>requirements pertaining to graves and burials will apply. If human remains are uncovered, or previously unknown graves are</p> <ul style="list-style-type: none"> • Discovered, a qualified archaeologist needs to be contacted and an evaluation of the finds made. If the remains are to be exhumed and relocated, the relocation procedures as accepted by SAHRA need to be followed. This includes an extensive • Social consultation process in conjunction with the mitigation of cemeteries and burials. • If any archaeological material is uncovered during the course of development, then work in the immediate area should cease. The find will need to be reported to SAHRA or an archaeologist. • If any area that contains stone artefacts in reasonable numbers (e.g. more than 10 within a few metres of one another) or in high concentrations is noted during the proposed developments this should be inspected by an archaeologist prior to any disturbance. 		
Public health	Moderate – positive	<ul style="list-style-type: none"> • Implement the scope of works as described in the technical report: <ul style="list-style-type: none"> ○ Litter management, by capturing litter through the implementation of a litter trap; ○ Silt management, by aiding sediment transport and reducing deposition through channel modifications to the stream bed. ○ Improving the security of the outlet structure and reducing the maintenance burden at the existing outlet structure. 	High – Positive	Low

		<ul style="list-style-type: none"> • The silt dredged from the stormwater system in the office park must be removed from site and appropriately disposed of. • Identify, demarcate avoid existing sewage lines clearly within the study area during the entire construction phase to prevent sewage leakages into the watercourse. 		
Nuisance impacts of construction activities	Moderate – negative	<ul style="list-style-type: none"> • Do not engage in construction activities during church gatherings or at night. • Liaise with local communities as to the activities scheduled and avoid construction during these times, if possible. • All stores, stockpiles, toilets and areas where construction workers are expected to gather (for lunch, as an example) are to be obscured from view using an appropriate material such as shade cloth. • Locate such areas away from the view of business customers (where possible). • Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. • No labour camps allowed on site. 	Low	Medium
Employment opportunities	Low - positive	<ul style="list-style-type: none"> • Make use of local labour as far as possible. • Liaise with local community structures to identify local labour pool. • Provision of training or skills enhancements for local people (in advance of construction) to allow them to benefit from higher wages during construction and improve their potential for similar work in future. 	High - positive	Medium

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
Spread of alien/invasive vegetation	Low	<p>The entire existing site is completely modified to a landscaped environment. Therefore, no mitigation for the site itself is proposed. However, to prevent the downstream spread of alien/invasive species:</p> <ul style="list-style-type: none"> Protect stockpiles of topsoil and subsoil material with silt fences that should be maintained during the entire construction phase on site. <p>Locate stockpiles outside of the 5 m buffer and not on slopes with a gradient greater than 1:3.</p>	Very low	Negligible
Visual impact – Construction phase	High	<ul style="list-style-type: none"> All stores, stockpiles, toilets and areas where construction workers are expected to gather (for lunch, as an example) are to be obscured from view using appropriate material such as shade cloth. Locate such areas away from the view of business customers (where possible). Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. No labour camps allowed on site. 	Moderate - negative	Low
Visual impact – Operational phase	Moderately positive	<ul style="list-style-type: none"> Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. All construction rubble, debris, machinery and materials are to be removed from site as soon as 	Very high positive	Low

		construction activities have been completed.		
Increased sedimentation	High	<ul style="list-style-type: none"> • Protect stockpiles of topsoil and subsoil material with silt fences that should be maintained during the entire construction phase on site. • Locate stockpiles outside of the 5 m buffer and not on slopes with a gradient greater than 1:3. • Create and maintain a temporary sediment control structure, such as a retention basin, within the existing gabion weir drop inlet structure. • The use of silt fences are more important during the summer months (rainy season) and would require more regular maintenance during this time. • Any dewatering that needs to be done from excavated areas during the construction phase should be released into a silt bay that is maintained in order to trap and remove sediments before they enter watercourse habitat. 	Low	Medium
Potential contamination of water	High – negative	<ul style="list-style-type: none"> • Use toolbox talks to highlight potential pollution sources within the study area, specifically avoid unnecessary vehicle access in the watercourse. • Ensure the availability and upkeep of spill kits on site. • Make use of drip trays for all machinery being used on the banks of the watercourse. • Any dewatering that needs to be done from excavated areas during the construction phase should be released into a silt bay that is maintained in order to trap and remove sediments before they enter watercourse habitat. • Check vehicles regularly for oil leaks and only refuel in designated 	Low Negative	Medium

		<p>areas (located outside of the watercourse and buffer area).</p> <ul style="list-style-type: none"> • Provide clearly marked bins for litter and the discard of other waste materials. • Provide and maintain portable toilets during the construction phase and keep them outside of the watercourse and buffer area. 		
Sludge/Silt discharged into the river	High negative	<ul style="list-style-type: none"> • The silt dredged from the stormwater system in the office park must be removed from site and appropriately disposed of. 	Low	High
Disturbance of heritage resources	Very low	<ul style="list-style-type: none"> • In the event that any sub-surface heritage resources or graves are unearthed all work has to be stopped until an assessment as to the significance of the site (or material) in question has been made by a heritage practitioner. Note that no archaeological material that has been uncovered may be removed. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development, the procedures and requirements pertaining to graves and burials will apply. If human remains are uncovered, or previously unknown graves are • Discovered, a qualified archaeologist needs to be contacted and an evaluation of the finds made. If the remains are to be exhumed and relocated, the relocation procedures as accepted by SAHRA need to be followed. This includes an extensive • Social consultation process in conjunction with the mitigation of cemeteries and burials. • If any archaeological material is uncovered during the course of development, then work in the immediate area should cease. The find will need to be reported to SAHRA or an archaeologist. 	Very low	Low

		<ul style="list-style-type: none"> If any area that contains stone artefacts in reasonable numbers (e.g. more than 10 within a few metres of one another) or in high concentrations is noted during the proposed developments this should be inspected by an archaeologist prior to any disturbance. 		
Public health	Moderate – positive	<ul style="list-style-type: none"> Implement the scope of works as described in the technical report: <ul style="list-style-type: none"> Litter management, by capturing litter through the implementation of a litter trap; Silt management, by aiding sediment transport and reducing deposition through channel modifications to the stream bed. Improving the security of the outlet structure and reducing the maintenance burden at the existing outlet structure. The silt dredged from the stormwater system in the office park must be removed from site and appropriately disposed of. Identify, demarcate avoid existing sewage lines clearly within the study area during the entire construction phase to prevent sewage leakages into the watercourse. 	High – Positive	Low
Nuisance impacts of construction activities	High – negative	<ul style="list-style-type: none"> Do not engage in construction activities during church gatherings or at night. Liaise with local communities as to the activities scheduled and avoid construction during these times, if possible. All stores, stockpiles, toilets and areas where construction workers are expected to gather (for lunch, as an example) are to be 	Moderate - negative	Medium

		<p>obscured from view using an appropriate material such as shade cloth.</p> <ul style="list-style-type: none"> • Locate such areas away from the view of business customers (where possible). • Rehabilitation should be done as a phased approach. After completion of an area, rehabilitate the area back to its original state as soon as possible. • No labour camps allowed on site. 		
Employment opportunities	Moderate - positive	<ul style="list-style-type: none"> • Make use of local labour as far as possible. • Liaise with local community structures to identify local labour pool. • Provision of training or skills enhancements for local people (in advance of construction) to allow them to benefit from higher wages during construction and improve their potential for similar work in future. 	High - positive	Medium

No Go

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Nuisance, visual and loss of business	Very high – negative	<p>Should the no-go alternative be approved, then it is recommended that Growthpoint</p> <ul style="list-style-type: none"> • Continue with manual removal of litter from the stormwater system. 	High - negative	High

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix. **Please refer to Appendix 11 for Specialist Reports**

<p>The following specialist assessment reports were used to complete the environmental impact assessments:</p> <ul style="list-style-type: none">• Watercourse Assessment• Heritage Impact Assessment• Geohydrological Assessment

- | |
|---|
| <p>The following specialist assessment reports were used to complete the environmental impact assessments:</p> <ul style="list-style-type: none">• Watercourse Assessment• Heritage Impact Assessment• Geohydrological Assessment |
|---|

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

- Wetland areas within transformed landscapes, such as urban, agricultural settings, or mining areas with existing infrastructure, are often affected by disturbances that restrict the use of available wetland indicators, such as hydrophytic vegetation or soil indicators (e.g. as a result of dense stands of alien vegetation, dumping, sedimentation, infrastructure encroachment and infilling). Hence, a wide range of available indicators are considered, to help determine wetland boundaries more accurately.
- The field study surveyed the surface only, a procedure that cannot locate buried archaeological and/or paleontological sites. While not detracting by any means from the extensiveness of the fieldwork undertaken by the authors, it is necessary to point out that heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the area. Various factors may account for this, such as ephemeral indications of graves, dense vegetation cover in some parts of the surveyed area, and the subterranean nature of certain archaeological sites that are buried through sediment accumulations.

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

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation 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.

The proposed project is related to the upgrade and management of an existing stormwater system within an existing office park with a limited scope of work. The implementation of the scope of work does not envisage having to decommission or prepare for any form of closure. Impacts from decommissioning and closure have therefore not been considered.

Proposal

[illegible]

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. [Please refer to Appendix 11 for Specialist Reports.](#)

The following specialist assessment reports were used to complete the environmental impact assessments:

- Watercourse Assessment
- Heritage Impact Assessment
- Geohydrological Assessment

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

Importing of topsoil material to receive grassing	m ³	220	R 350	R77 000
Grass newly constructed embankments with sods (includes procurement and placement of sods)	m ²	2200	R 120	R264 000

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:

The cumulative impacts for the no-go alternative far outweigh those of the preferred or 1st alternative. With the continued degradation of the stormwater system within the office park, water pollution will increase and the nuisance impact on the affected business owners will proved detrimental to the Developer and business owners.

Cumulative impacts for both alternatives are similar and regarded as significantly lower than that of the no-go alternative. As most negative impacts are confined to the construction phase, their duration will be short-term. The removal of topsoil for construction purposes together with the disturbance of in-stream environments may lead to increased sedimentation within the stormwater system. As the objective of the project is to, amongst others, reduce the silt content of the system, the implementation of mitigation measures is of paramount importance.

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.

Preferred alternative

Taking into account the mitigation measures contained in the EMP_r, the EAP is of the opinion that the potential impacts posed by the proposed development can be adequately mitigated to prevent detrimental impacts to the environment.

None of the potential negative impacts of the project can be considered a significant long term negative consequence on the affected social and biophysical environment that is extremely difficult to mitigate or undesirable to promote, in other words an environmental fatal flaw.

The EAP is also of the opinion that Growthpoint's Preferred Alternative be approved. This decision was based on the fact that the negative impacts associated with Alternative 1 increase substantially due to the larger scope of works and subsequent disturbance to the environment. And while the impact assessment shows an increased in positive impacts for Alternative 1, these increases are minimal. For example, the increase in construction activities for Alternative 1 will provide job opportunities for a slightly longer period of time. However, the negative impact of construction activities for the businesses within the office park also increase and could lead to loss of income for the directly affected business owners.

It is also important to keep in mind that the purpose of the project is to improve the current environmental conditions on site related to the stormwater system and possibly downstream users.

Please refer to Appendix 12, Chapter 4 for the impact descriptions for the Preferred Alternative.

Alternative 1

Alternative 1 sees the increase in positive impacts as assessed in Appendix 12, Chapter 4. However, it subsequently results larger negative impacts due to the increase in the disturbance of the site. This is related to the larger scope of works from completely replacing the existing outlet structure together with the installation of a silt trap. The silt trap will also require regular maintenance which will prove costly for Growthpoint and result in continuous disturbance within the watercourse.

Please refer to Appendix 12, Chapter 4 for the impact descriptions for Alternative 1.

Alternative 2

No-go (compulsory)

One of the options to be considered is no development at all. This entails leaving the site in its present state. This will result in the continued negative visual and nuisance impact and potentially increase the complaints received by Growthpoint from the business owners in the office park. Please refer to Appendix 12, Chapter 4 for more detail regarding the impact description for the no-go alternative.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The preferred alternative may potentially result in the short-term negative impact related to:

- Potential spread of alien/invasive plant species;
- Visual impact during construction phase;
- Increase in sedimentation;
- Potential contamination of water;
- Potential of discharge of sludge during the dredging process; and
- Disturbance of heritage resources.

However, with the implementation of appropriate mitigation measures, these impacts are mostly of low significance.

The preferred alternative proves favourable when comparing the negative impacts with those of Alternative 1.

The preferred alternative may potentially result in the positive impact related to:

- Improvement of the visual impact of the stormwater system during the operational phase;
- Improvement on public health due to the improvement of water quality on site; and
- Employment opportunities.

The preferred alternative is less favourable when comparing the visual and employment opportunities impacts to those of Alternative 1. Improvement on public health remains the same for both alternatives.

Please refer to Appendix 12 for the complete impact assessment and discussion.

For alternative:

Alternative 1 sees the increase in positive impacts as assessed in Appendix 12, Chapter 4. However, it subsequently results larger negative impacts due to the increase in the disturbance of the site. This is related to the larger scope of works from completely replacing the existing outlet structure together with the installation of a silt trap. The silt trap will also require regular maintenance which will prove costly for Growthpoint and result in continuous disturbance within the watercourse.

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.

Taking into account the mitigation measures proposed by the specialist as well as those contained in the EMPR, the EAP is of the opinion that the potential impacts posed by the proposed development can be adequately mitigated to prevent detrimental impacts to the environment.

The EAP is also of the opinion that Growthpoint's **Preferred Alternative** be approved. This decision was based on the fact that the negative impacts associated with Alternative 1 increase substantially due to the larger scope of works and subsequent disturbance to the environment. And while the impact assessment shows an increased in positive impacts for Alternative 1, these increases are minimal. For example, the increase in construction activities for Alternative 1 will provide job opportunities for a slightly longer period of time. However, the negative impact of construction activities for the businesses within the office park also increase and could lead to loss of income for the directly affected business owners.

It is therefore recommended that the GDARD considers this Impact Assessment Report together with the Basic Assessment Report and EMPr and issue an Environmental Authorisation to Growthpoint for the Preferred Alternative to proceed with the construction for the Constantia Kloof Stormwater Silt and Litter Management Project.

7. SPATIAL DEVELOPMENT TOOLS

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

The National Screening Tool was used to assess the environmental sensitivities that are applicable to the site. The tool is a GIS based Tool that screens for potential biodiversity and conservation sensitivities and EIA triggers. It provides Sensitivity themes as well as features of the sensitivities. The following outcomes were found:

- According to the National Screening Tool, the proposed project traverses' areas of mainly medium and low agricultural sensitivity with limited areas of high agricultural sensitivity towards the north.
- The proposed site falls partially within areas of Low Aquatic Biodiversity Sensitivity with a corridor of very high sensitivity running through the centre.
- The project also mostly traverses areas with a low terrestrial biodiversity sensitivity, but certain sections are rated as being of very high value.
- The data from the National Screening Tool indicates that the project affects an area with high archaeological and cultural heritage sensitivity.

The Gauteng Conservation Plan (C-Plan 3.3) was also used for assessment of the site. The tool was developed by the Gauteng Nature Conservation Department (component of the Gauteng Department of Agriculture and Rural Development (GDARD)).

According to C-Plan, the proposed project is largely located in an area that is built-up. Furthermore, the project is in close proximity to both Critical Biodiversity and Ecological Support Areas which are then further classified into Ecological Support and Important Areas. This can be attributed to the presence of the river and wetland areas.

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):

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:

Please refer to the Impact Assessment Report attached in Appendix 12 and the Environmental Management Programme attached in Appendix 13

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

The Klein Jukskei river flows for approximately 700 m through the Constantia Kloof Office Park. The riverbed and banks have been altered to a channel with a series of ponds separated by weirs and stone pitched riffles. The Klein Jukskei River and the adjacent gardens form the centre piece of the urban office park.

The stormwater challenges that the Growthpoint is current experiencing at this office park are related to the water quality and sediment and litter deposition within the ponds in the section of channel. The litter is an eyesore and distracts from the aesthetic intentions of the office park. In addition to litter, larger items such as building rubble and tree stumps enter the site through the current stormwater section. These factors create a risk of loss of tenants who are currently renting office space.

Furthermore, the maintenance costs associated with manual sediment removal, visual impact of litter and the poor quality of stagnant water have necessitated an engineered solution to improve the status quo of the channel within the property boundary (project site).

Thus, with the potential loss of income and the impact of higher operational cost, the sustainability of the facilities may be resulting in inherent job losses as well as other indirect economical losses.

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

5 Years

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

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

EMPr attached in Appendix 13

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.