

Gauteng Department of Agriculture and Rural Development (GDARD)

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

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

Kindly note that:

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

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

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

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

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

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

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

If no, state reasons for not attaching the list.

N/A

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

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

PROPOSED CONSTRUCTION OF A PEDESTRIAN WALKWAY AND CYCLE PATH NETWORK IN THE TEMBA AREA OF THE CITY OF TSHWANE MUNICIPALITY, GAUTENG

The project entails the following:

- The construction of walkways from the sports precinct to the Hammanskraal CBD in the Kudube Activity Node and through to the Jubilee mall along road D2757. The total length of the walkways constructed on both sides on the roadway is approximately 7.0km.
- The construction of a cycle path along the R734, R101 and road D2757 up to the Jubilee mall constructed on both sides of the roadway. The total length of the cycle path is approximately 7.0km.

During a visual inspection of the roadways along which the walkways/cycle paths are proposed the condition of the road way, existing kerbing, existing walkways/cycle paths, available servitudes and the in-situ materials were inspected by the project engineers.

Visual Materials Investigations:

- **Centre line investigation:** A visual inspection of the materials along the routes of the proposed walkways showed the existence of G6 quality materials. This material is good for walkway/cycle path construction. Earthworks operations will therefore involve the removal of the top 100mm of top soil to stockpile, cut 150mm of G6 material to stockpile and scarifying and compaction of the resultant roadbed to 93% MODASSHTO.
- **Borrow Pits:** The Municipality will have to identify and provide a borrow pit with G6 quality materials to make up for deficiency materials. It is recommended that such borrow pits be located within the Hammanskraal/Temba area to avoid excessive haul distances.
- **Storm Water Drainage System:** Visual investigations indicate that the existing storm water drainage system is of adequate capacity. There is a need for continued maintenance of the storm water drainage system.
- **Kerbing:** Most of the kerbing along the roadways is in good condition with a few requiring replacement.
- **Available servitudes:** The available road servitudes range from 15m to 50m. The walkways and cycle paths will be constructed within this servitude.
- **Land Expropriation Process:** No land expropriation is required as the road servitudes are owned

either by the City of Tshwane or Gautrans.

- **Way-leaves:** A-M Consulting Engineers will apply for Way-leaves to all affected utility owners before the commencement of construction.

It is proposed that improvements to existing walkways are made to match the proposed walkway/cycle path design. The geometric design of the walkways/cycle paths will be done in accordance with the recommended design standards and to this end, the following design hand books will be used:

- TRH4 – Structural Design of Flexible Pavements for Interurban and Rural Roads.
- TRH14 – Guidelines for Road Construction Materials.
- UTG1/TRH3 – Guidelines for the Geometric Design of Urban Arterial Roads.
- Guidelines for Human Settlement Planning & Design (Volume 1 & 2).

The geometric design standard of the walkways/cycle paths will also be based on the standard details and design standards for roads and storm water drainage infrastructure laid down by the transport department of the City of Tshwane Municipality.

Minimum sidewalk, walkways and cycling track width:

- **Sidewalks with buffer strips:**
 - Minimum Width 1.5m
 - Desirable Width 1.8m
 - Buffer Strip Width 0.6m
- **Sidewalks without buffer strips:** 1.8m
- **Sidewalks in business centre:** 2.5 – 3.5m
- **Cycling track:** 2m
- **Shared cycling track/walkways:** 2.4m

All traffic signs and markings will be in accordance with the latest volumes of specifications for traffic signs as prescribed and recommended by the City of Tshwane Department of Transport.

Visual pavement assessment:

A visual inspection of the roadways along which the walkways/ cycle paths are proposed was conducted in order to provide preliminary physical design information. The objective of the visual inspection on the roadways was to assess the functional and structural characteristics of the road pavement structure. The pavement conditions of the roads were found to be satisfactory and no major rehabilitation work is required.

- **Section 1: Sports Centre Street to Traffic Circle at the Institutional Buildings (Chainage 0 to 700)** - the available road servitude is 15m wide with the roadway positioned centrally. A pedestrian walkway only, will be constructed on both sides of the roadway along this section as there is therefore enough room to construct the walkways.
- **Section 2: Traffic Circle to Shopping Complex (Chainage 700 to 1200)** - the available road servitude is 20m wide with the roadway positioned centrally. A pedestrian walkway only, will be constructed on both sides of the roadway along this section as there is therefore enough room to construct the walkways.
- **Section 3: In and around the Shopping Complex (Chainage 1200 to 2400)** - the available road servitude varies depending on the location of the roadway. Pedestrian walkways only, will be constructed on both sides of the roadway along these sections. In cases where there is no enough room, the walkways will be constructed from the road kerb line to the erf boundary.
- **Section 4: Hammanskraal N1 off-ramp to Intersection with R101 along R734 (Chainage 2400 to 3800)** - the available road servitude is over 50m wide with the roadway positioned centrally. A pedestrian walkway and cycle path will be constructed along this section as there is enough room for the construction of both a pedestrian walkway and cycle path. These will be constructed on both sides of the roadway.
- **Section 5: R101/R734 Intersection to R101/D2757 Intersection (Chainage 3800 to 4300)** - the available road servitude is over 50m wide with the roadway positioned centrally. A pedestrian walkway and cycle path will be constructed along this section as there is enough room for the construction of both a pedestrian walkway and cycle path. A cycle path will be constructed on one

side of the road only as there is space limitation on one side of the road due to an existing large storm water drainage channel.

- **Section 6: R101/D2757 Intersection to First Traffic Lights at the Jubilee Mall, along D2757 Road (Chainage 4300 to 5700)** - the available road servitude is over 50m wide with the roadway positioned centrally. A pedestrian walkway and cycle path will be constructed along this section as there is enough room for the construction of both a pedestrian walkway and cycle path.

Design:

- **Road/walkway path cross-section:** Some sections of the roads already have walkways without a buffer strip, even in the abundance of working space. It is proposed that the walkways/cycle paths be designed to connect to these existing walkways/cycle paths, therefore no buffer strip was allowed for in the design.
- **Horizontal alignment:** The proposed walkways/cycle paths will be designed to suit the existing horizontal alignment of the corresponding roadways.
- **Vertical alignment:** The proposed walkways/cycle paths will be designed to suit the existing vertical alignment of the corresponding roadways.
- **Services:** All visible services along the entire road were noted during the visual site investigation. Major relocation of existing services is anticipated due to the proposed walkways/cycle paths.

Roadside furniture:

- **Road signs, road markings and road safety:** Road marking and signs will be placed in accordance with the "South African Traffic Signs Manual". The road signs will generally be placed at intersections and curves. Information signage will also be placed along the road.
- **Furniture:** The project will provide for street furniture, bollards to protect pedestrians and cyclists from motorists, trees for shade, benches to accommodate resting pedestrians and bins for healthy waste disposal. These will be designed by the appointed architects.

Labour intensive construction: The works will be constructed utilizing labour intensive construction methods. This will provide employment opportunities for local skilled, semi-skilled and unskilled personnel. It is the intention of this contract to optimize the incorporation of local labour.

Social impact:

- **Liaison with local authorities and communities:** In addition to the required public participation conducted as part of this EIA process, a Project Steering Committee (PSC) that will be responsible for informing the community on the project and also identifying local labour to be used during construction will be set up. The setting up of the PSC will be the responsibility of the Municipality.
- **Land ownership, acquisition and compensation:** The construction of the road will be within the existing road servitude and the existing horizontal alignment will be utilized. There is therefore no requirement for land acquisition and compensation.

Designs, layout plans and aerial photographs are attached as Appendices A and C.

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

National Water Act, Act 36 of 1998 – Department of Water Affairs
National Heritage Resources Act, Act 25 of 1999 – South African Heritage Resources Agency

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:
<i>National Environmental Management Act, Act No. 107 of 1998</i>	<i>Department of Environmental Affairs and Tourism (Gauteng Department of Agriculture, and Rural Development for this project specifically)</i>	<i>27 November 1998</i>
<i>National Water Act, Act No. 36 of 1998</i>	<i>Department of Water Affairs</i>	<i>28 August 1998</i>
<i>City of Tshwane Metropolitan Municipality Integrated Development Plan (IDP)</i>	<i>City of Tshwane Metropolitan Municipality</i>	<i>March 2013</i>
<i>Principles of the Development Facilitation Act</i>	<i>DFA of South Africa</i>	<i>1995</i>
<i>National Heritage Resources Act, Act No 25 of 1999</i>	<i>South African Heritage Resources Agency</i>	<i>28 April 1999</i>
<i>Tshwane Open Space Framework</i>	<i>City of Tshwane Metropolitan Municipality</i>	<i>November 2005</i>

3. ALTERNATIVES

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

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

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

Provide a description of the alternatives considered.

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
1	Proposal	<p><i>The project entails the following:</i></p> <ul style="list-style-type: none"> • <i>The construction of walkways from the sports precinct to the Hammanskraal CBD in the Kudube Activity Node and through to the Jubilee mall along road D2757. The total length of the walkways constructed on both sides on the roadway is approximately 7.0km.</i> • <i>The construction of a cycle path along the R734, R101 and road D2757 up to the Jubilee mall constructed on both sides of the roadway. The total length of the cycle path is approximately 7.0km.</i> •
2	Scheduling Alternatives	<p><i>A number of scheduling alternatives were considered for the project. These are as follows:</i></p> <ul style="list-style-type: none"> • <i>The greatest noise will be generated during the construction phase of the development. Construction activities will be scheduled to take place during office hours on weekdays with no construction being allowed</i>

		<p><i>after hours, on weekends or on public holidays,</i></p> <ul style="list-style-type: none"> <i>The construction phase of the project will involve earth moving. This will cause loose top soils, which may result in silt laden storm water runoff during downpours and associated degradation of water quality in local water bodies. For this reason the construction phase of the project will be scheduled (as far as this is possible) to take place during the winter months when there will be less precipitation and therefore less runoff across the site.</i>
3		

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

<p>Key reasons why no other alternatives were considered:</p> <ul style="list-style-type: none"> <i>The proposed construction of the pedestrian walkways and cycle paths along the specified roads and street in Temba forms part of the City of Tshwane Department of Infrastructure and Programme Management's planning of upgrading the municipal services and facilities in these residential areas within its jurisdiction.</i> <i>The proposed pedestrian walkways and cycle paths will create safe access between various schools, shopping centres and public services such as bus stations and taxi pick-up points.</i> <i>The above aspects will most certainly create a safer pedestrian and cycle environment for the local community and should thereby cause a notable increase in the quality of life of the local inhabitants.</i>
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NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

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

Proposed activity	Size of the activity: N/A – linear activity
Alternatives:	
Alternative 1 (if any)	N/A – linear activity
Alternative 2 (if any)	N/A – linear activity

Ha/m²

or, for linear activities:

Proposed activity	<p>Length of the activity: Approximately 7km:</p> <ul style="list-style-type: none"> <i>The construction of walkways from the sports precinct to the Hammanskraal CBD in the Kudube Activity Node and through to the Jubilee mall along road D2757. The total length of the walkways constructed on both sides on the roadway is approximately 7.0km.</i> <i>The construction of a cycle path along the R734, R101 and road D2757 up to the Jubilee mall constructed on both sides of the roadway. The total length of the cycle path is approximately 7.0km.</i>
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A

m/km

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

Proposed activity	Size of the site/servitude: N/A – linear activity
Alternatives:	
Alternative 1 (if any)	N/A – linear activity
Alternative 2 (if any)	N/A – linear activity

Ha/m²

5. SITE ACCESS

Proposal

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

YES	NO
m	

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

Describe the type of access road planned:

N/A

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

Alternative 1 – N/A

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

YES	NO
m	

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

Describe the type of access road planned:

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

Alternative 2

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

YES	NO
m	

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

Describe the type of access road planned:

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

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. SITE OR ROUTE PLAN

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

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

7. SITE PHOTOGRAPHS

Colour photographs from the centre 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)

Further:

Instructions for completion of Section B for linear activities

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

Section B has been duplicated for sections of the route 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.

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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:

- *The proposed pedestrian walkways and cycle paths will be constructed in the existing road reserves from the sports precinct to the Hammanskraal CBD in the Kudube Activity Node and through to the Jubilee mall along road D2757.*
- *From the N1 Highway along the R734, R101 and road D2757 up to the Jubilee Mall.*

(Farm name, portion etc.)

2. ACTIVITY POSITION

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

Alternative:

Latitude (S):	Longitude (E):

In the case of linear activities:

Alternative:

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

Latitude (S):	Longitude (E):
25° 24' 22.6" S	28° 16' 19.4" E
25° 24' 19.6" S	28° 17' 06.8" E
25° 24' 11.8" S	28° 17' 49.0" 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

YES

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

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(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 3)? 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 = 40%	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) = 40%	Building or other structure = 20%	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:

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:

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One riparian feature was located crossing the route, namely the Apies River. The bridge crossing of the riparian feature is located within the D2757 road reserve. The Apies River is a perennial river classified as a Class C (Moderately modified) system. The Apies River is not classified as a free flowing, flagship or FEPA river.

The riparian feature has seen significant transformation due to alien vegetation encroachment, soil alterations as well as dumping of waste and construction material. Invader species such as *Melia azedarach*, *Solanum mauritianum* and *Robinia pseudoacacia* occurred within the riparian zone. Although the riparian system has been transformed, it still provides an ecological function in terms of flood attenuation.

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

If yes complete specialist details

Name of the specialist:

Scientific Aquatic Services:
S. van Staden (Pri.Sci.Nat)
E. van der Westhuizen
N. Bezuidenhout (Cand.Sci.Nat)

Qualification(s) of the specialist:

S. van Staden
BSc. Hons (Aquatic Health) (RAU);
M.Sc. Environmental Management (RAU).

Postal address:

91 Geldenhuys Road, Malvern East Ext 1, 2007

Postal code:

2007

Telephone:

011 616 7893

Cell:

E-mail:

admin@sasenvironmental.co.za

Fax:

086 724 3132

Are any further specialist studies recommended by the specialist?

YES

NO

If YES,

N/A

specify:

If YES, is such a report(s) attached? – N/A

YES

NO

If YES list the specialist reports attached below

N/A

Signature of specialist:



Date:

2013-12-11

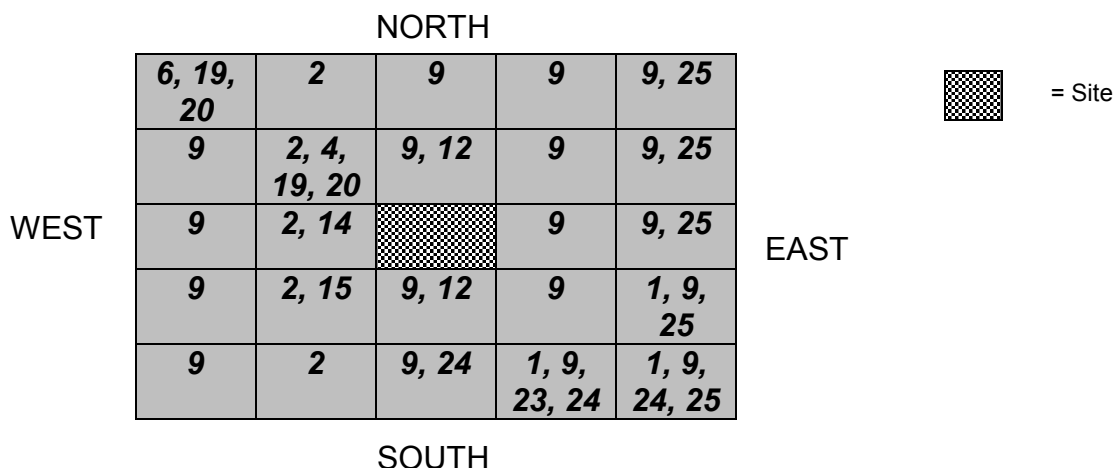
Please note: If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

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 X250m



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
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Ecological Scan
Cultural Heritage Resources Impact Assessment

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.

Temba forms part of the greater Hammanskraal area and is located north of Pretoria. It covers an area of 2.19km². Poverty is very prevalent in the area and unemployment figures are high due to the long distance and high cost of transport to Pretoria, where most employment opportunities are. The greater Hammanskraal area has seen a lot of growth in the past two decades, with road infrastructure having improved, new areas for informal traders being constructed and tourism becoming one of the fast growing industries in the area, due to its close proximity to the Dinokeng conservancy.

According to the 2011 Census the majority of residents of Temba are Black African (99.9%). Most residents speak Tsonga as mother tongue (34.96%), followed by Northern Sotho (29.9%). Temba's population is 5 310 people.

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, power line, 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;

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- (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 paleontological sites, on or close (within 20m) to the site?

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

If YES, explain:

N/A

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 pathways are next to existing tar roads in the road reserve. The areas have been graded in the past, destroying possible heritage sites. No important cultural heritage resources or graves were found on or near the proposed pathway routes (African Heritage Consultants CC).

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

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

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

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

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

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

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

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

2. LOCAL AUTHORITY PARTICIPATION

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

Has any comment been received from the local authority?

YES	NO
-----	----

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

The CoT EMSD was contacted and provided with a BID. The letter from the EMSD and the DMS states that the department supports the proposed development but that they would like to be involved in the planning process to be able to deal with aspects arising out of the proposed project. In addition the following aspects were also raised:

- (1) Was a study done to determine the area for development?*
- (2) What methodology was used to determine the specific streets, areas, etc.?*
- (3) Will the walkway/path lead to schools, shopping centres or will it only be in a specific/low demanding area: Higher demand might exist at schools, shopping centres, parks, etc.*
- (4) Will provision be made for crossing of roads?*
- (5) Will the pedestrian walkway and cycle path be a combination or will it be 2 separate networks (1 for pedestrians only and another for cycles). It might be a concern if it is a combination that will allow cyclists and pedestrians using the same path/walkway.*
- (6) We would like to receive more information on the development.*

The EAP responded to each of the aspects raised above. The detailed responses are included in Appendixes E_4 and E_6 of this BAR.

Comment Received on the Draft BAR

The City of Tshwane Metropolitan Municipality's (CoT's) Environmental Planning and Open Space Management Section responded on the Draft BAR submitted to them by the EAP and included a set of recommendations under section 5 of their response. Their comment basically included the requirement for Specialist Storm Water and Traffic Impact Assessment, the relevant Water Use Licencing process comments must be sought from the Department of Water Affairs and finally, comment must be sought from interested and affected parties and included in the final BAR.

The EAP responded to each of the aspects raised above. The detailed responses are included in Appendixes E_4 and E_6 of this BAR.

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

N/A

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):

*Telkom responded by requesting zoomed locality maps in Google Earth format.
The EAP was contacted by Telkom and requested to send Google earth KMZ files of the areas of the proposed Walkways and Cycle Paths.*

The EAP responded to each of the aspects raised above. The detailed responses are included in Appendixes E_4 and E_6 of this BAR.

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

N/A

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

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

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

5. APPENDICES FOR PUBLIC PARTICIPATION

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

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

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

Appendix 6 – Comments and Responses Report

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

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

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 – Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

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

Instructions for completion of Section D for alternatives

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

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

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

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

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?

<i>(unknown)</i> m ³

How will the construction solid waste be disposed of (describe)?
Topsoil and G6 materials removed from the site will again be used for the construction of the walkways; therefore the amount of solid waste that will have to be disposed of will be negligible, if any.

Where will the construction solid waste be disposed of (describe)?
Materials sourced from the site (top soil and G6 material) will be used for the construction of the walkways. However, should there be any solid waste left over after construction is complete, the Municipality (City of Tshwane Metropolitan Municipality) will identify space to dispose of any solid waste generated during the construction phase, as the Municipality is the applicant. This will take place internally by involving the relevant departments within the Municipality.

Will the activity produce solid waste during its operational phase?

YES	NO
-----	----

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

m ³

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

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)?
The Municipality (City of Tshwane Metropolitan Municipality) is the applicant and therefore identifying space to dispose of solid waste generated during the construction phase will take place internally by involving the relevant departments within the Municipality, should there be any solid waste left over after construction is complete.

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:

Materials sourced from the site (top soil and G6 material) will be used for the construction of the walkways.

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?

<i>(unknown)</i> m ³

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

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A minimal amount of water will be used on site, mainly for dust suppression (therefore not producing any effluent) and mixing of materials for construction of the walkways and cycle paths. Therefore the amount of effluent that will be produced will be negligible.

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: - **N/A**

Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:		Cell: <input style="width: 80%;" type="text"/>
E-mail:		Fax: <input style="width: 80%;" type="text"/>

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

N/A – the amount of effluent to be produced will be negligible, if any.

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	
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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 of.

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:

Dust during construction of the walkways.

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:

	litres
--	--------

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

N/A

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 e.g. Municipality / Eskom / Renewable energy source

Power will only be used during the construction phase. A Mobile generator will be used by the contractor where necessary. The generator will also be supplied and maintained by the contractor for the duration of its use.

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

See Above

4. ENERGY EFFICIENCY

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

None, as electricity will only be used during the construction phase.

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

SECTION E: IMPACT ASSESSMENT

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

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

Emergency Management Services Department (EMSD) and the Disaster Management Section (DMS) of the CoT: The department supports the proposed development but they would like to be involved in the planning process to be able to deal with aspects arising out of the proposed project. In addition the following aspects were also raised:

- (1) Was a study done to determine the area for development?*
- (2) What methodology was used to determine the specific streets, areas, etc.?*
- (3) Will the walkway/path lead to schools, shopping centres or will it only be in a specific/low demanding area: Higher demand might exist at schools, shopping centres, parks, etc.*
- (4) Will provision be made for crossing of roads?*
- (5) Will the pedestrian walkway and cycle path be a combination or will it be 2 separate networks (1 for pedestrians only and another for cycles). It might be a concern if it is a combination that will allow cyclists and pedestrians using the same path/walkway.*
- (6) We would like to receive more information on the development.*

Telkom responded by requesting zoomed locality maps in Google Earth format.

The EAP was contacted by Telkom and requested to send Google earth KMZ files of the areas of the proposed Walkways and Cycle Paths.

Telkom provided official responses in terms of the wayleave requirements for the construction phase of the project.

Comment Received on the Draft BAR

The City of Tshwane Metropolitan Municipality's (CoT's) Environmental Planning and Open Space Management Section responded on the Draft BAR submitted to them by the EAP and included a set of recommendations under section 5 of their response. Their comment basically included the requirement for Specialist Storm Water and Traffic Impact Assessment, the relevant Water Use Licencing process comments must be sought from the Department of Water Affairs and finally, comment must be sought from interested and affected parties and included in the final BAR.

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

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

The EAP Responded by informing them that the Basic Assessment Report will be provided in due time and will divulge detail information on the details and designs of the walkways and cycle paths. The CoT DMS would be able to provide input here that will be communicated to the Project Manager of the CoT's Infrastructure and Programme Management Section to consider and to liaise with. In terms of specific aspects raised by the EMSD the EAP responded as follows:

- 1. The CoT's Infrastructure and Programme Management Section appointed a specialist engineering firm (Tsoletso Projects) to perform an engineering study into the upgrade of the roads and the construction of the pedestrian walkways and cycle paths in the subject Olievenhoutbos area. Tsoletso Projects in return presented a preliminary design report with recommendations and specifications..*
- 2. Specific roads were identified by the CoT's Infrastructure and Programme Management Section, which falls within the planning for future upgrades in the Olievenhoutbos residential area. These roads were investigated by the engineering firm in terms of the possibilities for the road upgrade and the construction of the walkways and cycle paths.*
- 3. The walkways and cycle paths will connect various schools, shopping centres and local commuting termini with prominent access ways in Olievenhoutbos.*
- 4. Traffic safety provision will be made in terms of the standard CoT specification traffic signage, street furniture (e.g. concrete bollards to separate traffic from pedestrians and cyclists) and signalling at the intersections of the pedestrian walkways and cycle paths with road crossings.*
- 5. The walkways and cycle paths will be combined in areas and separate in areas. Although this poses safety risks it is perceived less of a safety risk than the current situation where these road users must often walk or cycle within the road itself. Signage and other safety features such as lighting and concrete bollards will be placed specifically to reduce the safety risks on the walkways and cycle paths.*
- 6. The Basic Assessment Report will be provided in due time and will divulge detail information on the details and designs of the walkways and cycle paths.*

In addition the requirements of the EMS Section of the City of Tshwane were also discussed with the project team in a project meeting. The requirements of the EMS Section of the City of Tshwane will furthermore be included in the EMP that will need to be implemented in the pre-construction and construction phases of the project.

In terms of the comments from Telkom, the relevant wayleave contact person was supplied with the google files they requested. The Telkom requirements were also discussed with the CoT Project Manager and are furthermore also taken up in the EMPR.

Response on Comment Received on the Draft BAR

No responses or comment were received in terms of the Draft BAR from any party apart from the CoT: Environmental Planning and Open Space Management Section. The EAP prepared a response to each of the aspects raised in Section 5 of the CoT response. This is included in the BAR Appendixes E_4 and E_6. In summary the EAP argued that the requirement for a full Storm Water Management Plan and Traffic Impact Assessment for this scale of project seems to be an over assessment. It was also argued that Storm Water Management and Traffic related impacts were identified as possible impacts and that detailed mitigation and rehabilitation measures have been developed in the Biodiversity Specialist Report, the BAR and the EMP, to assist the Applicant and the Contractors to manage these impacts effectively should they occur. In terms of the requirements for obtaining comment from the DWA and from other interested and affected parties the EAP provided detailed accounts of the process followed to obtain these comments.

The detailed responses are included in Appendixes E_4 and E_6 of this BAR.

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

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

Parameters	Description
Extent	<p><i>Refers to the physical or geographical size that is affected by the impact. It can be categorised into the following ranges:</i></p> <ul style="list-style-type: none"> • <i>Onsite – Within specific site boundary (weight value – 1)</i> • <i>Local – Within municipal boundary (weight value – 2)</i> • <i>Regional – Outside municipal boundary (weight value – 3)</i>
Duration	<p><i>Time span associated with impact:</i></p> <ul style="list-style-type: none"> • <i>Short term – 1 Year or less (weight value – 1)</i> • <i>Medium term – 1-5 Years (weight value – 2)</i> • <i>Long term – Longer than 5 Years (weight value – 3)</i>
Probability	<p><i>The likelihood of an impact occurring:</i></p> <ul style="list-style-type: none"> • <i>Unlikely – 0% - 45% chance of the potential impact occurring (weight value – 1)</i> • <i>Possible – 46% - 75% chance of the potential impact occurring (weight value – 2)</i> • <i>Likely – >75% chance of the potential impact occurring (weight value – 3)</i>
Intensity	<p><i>The severity of an impact on the receiving environment:</i></p> <ul style="list-style-type: none"> • <i>Low – Natural and/or cultural processes continue in a modified way and is reversible (weight value – 1)</i> • <i>Medium – Natural and/or cultural processes stop and is partially reversible (weight value – 2)</i> • <i>High – Natural and/or cultural processes disturbed to an irreversible state (weight value – 3)</i>
Significance of Impact	<p><i>Adding the extent, duration, intensity and probability together provides the significance of the impact:</i></p> <p><i>1 – 4 = Low</i> <i>5 – 8 = Medium</i> <i>9 – 12 = High</i></p>

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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

Impacts during the Construction Phase:			
Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<i>Job creation (construction phase): a limited number of temporary jobs may be created for the duration of the construction phase.</i>	<i>High (positive)</i>	<ul style="list-style-type: none"> • <i>Members of the local community should be employed.</i> • <i>On-the-job training should form part of the employment period and contract, to contribute to skills development.</i> • <i>An equal number of males and females should be employed.</i> 	<i>High (positive)</i>
<i>Traffic disruptions: traffic may be disrupted during construction due to the presence of construction vehicles and the presence of temporary stockpiles and areas for mixing of materials to be used during construction, resulting in prolonged travelling times.</i>	<i>Medium (negative)</i>	<ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>The whole construction site should preferably be fenced off during construction. The principal contractor must in addition provide suitably visible signage (visible for both motorists and pedestrians) along the entire site, informing people that the site is under construction and that no access is allowed for any unauthorised persons.</i> 	<i>Low (negative)</i>
<i>Traffic safety: accidents may occur during construction due to the presence of construction vehicles and the presence of temporary stockpiles and areas for mixing of materials to be used during construction.</i>	<i>Medium (negative)</i>	<ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>The whole construction site should preferably be fenced off during construction. The principal contractor must in addition provide suitably visible signage (visible for both motorists and pedestrians) along the entire site, informing people that the site is under construction and that no access is allowed for any unauthorised persons. Areas where construction has to take place must be clearly</i> 	<i>Low (negative)</i>

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<p><i>Pedestrian safety: pedestrians may be hurt when walking on uneven areas where construction is taking place. They may also be hit by cars if they have to walk in the road due to construction taking place on pavements.</i></p>	<p><i>High (negative)</i></p>	<p><i>demarcated to ensure that only these areas are stripped.</i></p> <ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>The whole construction site should preferably be fenced off during construction. The principal contractor must in addition provide suitably visible signage (visible for both motorists and pedestrians) along the entire site, informing people that the site is under construction and that no access is allowed for any unauthorised persons. Areas where construction has to take place must be clearly demarcated to ensure that only these areas are stripped.</i> • <i>Areas where construction has to take place must be clearly demarcated to ensure that only these areas are stripped.</i> 	<p><i>Medium (negative)</i></p>
<p><i>Noise: there will be an increase in noise due to construction activities taking place.</i></p>	<p><i>Low (negative)</i></p>	<ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>A construction/management plan to specify the most appropriate time for any construction activities to commence must be implemented.</i> • <i>Construction should occur in a phased manner to avoid long periods of disruption and exposure.</i> • <i>Structures containing activities that may contribute to undesirable noise levels in the area must be placed and orientated to face away from areas sensitive to noise pollution as far as possible.</i> • <i>Noisy activities related to the construction phase of the development (e.g. vehicles, compressors, workers) must be kept to the necessary minimum.</i> • <i>Construction activities must be restricted to between 8:00 in</i> 	<p><i>Low (negative)</i></p>

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		<p><i>the mornings and 17:00 in the afternoon and not on any weekend or public holidays.</i></p> <ul style="list-style-type: none"> • <i>Construction vehicles and equipment must be regularly serviced to avoid the noise that these machines may make if in disrepair.</i> • <i>Construction workers and staff must be supplied with sufficient protective clothing and other gear (e.g. ear plugs) and must furthermore be trained how to use this gear properly by the Occupational Health and Safety Officer.</i> 	
<p><i>Dust: during construction dust will be generated that can reduce visibility for drivers and pedestrians, as well as cause discomfort for people in the vicinity.</i></p>	<p><i>Medium (negative)</i></p>	<ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>Construction should occur in a phased manner to avoid long periods of disruption and exposure.</i> • <i>Dust suppression must be performed according to the seasonal changes and according to the prevailing site-specific circumstances via a dust suppression truck on the site roads, other construction areas and the parking areas.</i> • <i>Vegetation along roads and landscaping of the larger development environment will help improve air quality over the long term and must therefore be planted wherever disturbed as far as possible.</i> 	<p><i>Low (negative)</i></p>
<p><i>Negative visual impact: during construction there will be a negative impact on the aesthetics of the area.</i></p>	<p><i>Medium (negative)</i></p>	<ul style="list-style-type: none"> • <i>Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.</i> • <i>On completion of works, the contractor shall clear away and remove from the site all surplus material.</i> 	<p><i>Low (negative)</i></p>
<p><i>Soil and/or water contamination: should there be oil leaks from construction vehicles and machinery it could lead to contamination of the soil and groundwater. This can also occur due to improper waste disposal.</i></p>	<p><i>High (negative)</i></p>	<ul style="list-style-type: none"> • <i>Solid waste should be sorted into categories and those not suited to be dumped in an appropriate waste skip at the temporary facility (e.g. cement and chemicals) must be dumped at a recognized waste disposal facility designed for</i> 	<p><i>Medium (negative)</i></p>

		<p><i>this purpose.</i></p> <ul style="list-style-type: none"> • <i>A suitable site must be selected for the waste skip site and this site should only contain materials that do not pose any risk in terms of surface or sub surface environmental contamination (e.g. building rubble). This site must be suitably rehabilitated after completion of construction activities.</i> • <i>Special attention must be given to any temporary fuel tank and its surrounding area. This area should be appropriately designed, in a watertight bunker which is able to hold 110% of the volume of the tank itself. The area should be monitored on a weekly basis to ensure that no fuel is leaking into the soils.</i> • <i>All construction materials must be stored in designated areas that are suitable for the containment of that specific material. In the event of a spillage an appropriate environmental specialist must be contacted. The contaminated soil must be removed to a depth at which no sign of the contaminant is visible and replaced with healthy soils.</i> • <i>Construction vehicles and equipment must be checked and maintained on a regular basis (weekly) to ensure that no environmental contamination is brought about by oil, fuel or hydraulic fluid leakages.</i> • <i>All soils in areas contaminated with cement dust, small oil and fuel leakages and other contaminants must be removed to an appropriate depth as per the specific contaminant as prescribed by the ECO. These soils must be replaced with suitably healthy soils (able of harbouring plant and animal life) and be stabilized by contouring the soils according to the local site contours, reseeded or replanted with soil stabilising ground covering species indigenous to the local area.</i> • <i>No dumping of any form is permitted in the drainage area or its surrounds.</i> • <i>Drip trays (min 10cm deep) must be placed under all vehicles awaiting maintenance,</i> 	
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BASIC ASSESSMENT REPORT [REGULATION 22(1)]

		<p><i>suspected of having a mechanical problem that can lead to a significant leakage, that is decommissioned and awaiting removal or that will remain on the parking area for more than one week.</i></p> <ul style="list-style-type: none"> • <i>Vehicle maintenance may only be performed if in a sealed off area with an oil impenetrable floor. In the case that the Principle Contractor cannot supply such a facility on site, all vehicles and machinery must be serviced and maintained off site.</i> • <i>A spill recovery kit must be on site, along with trained personnel.</i> • <i>Adequate water, sanitation and solid waste disposal services must be provided or arranged prior to commencement of construction activities.</i> • <i>No temporary pit latrines of any kind may be allowed anywhere on the site.</i> • <i>Sufficient numbers of temporary chemical toilets (1 per 15 people) must be installed by the PC for the time of the construction activity.</i> 	
<p><i>Fires: fires can spread through the building of fires for heating (in winter) and cooking by construction workers, as well as cigarette butts being thrown in close proximity to any flammable materials during construction.</i></p>	<p><i>High (negative)</i></p>	<ul style="list-style-type: none"> • <i>Cooking on the construction site must preferably be performed by gas stoves outside where there is good ventilation.</i> • <i>Designated fire places may be provided for in safe areas away from flammable materials. No fires may be built outside these areas.</i> • <i>All activities and facilities where fire related activities are allowed must be equipped with appropriate fire distinguishing equipment which must be monitored and serviced by a qualified service operator on a regular basis, according to NHBRC specification.</i> 	<p><i>Medium (negative)</i></p>
<p><i>Heritage impacts: heritage resources of value could be found during site preparation and construction.</i></p>	<p><i>Low (negative)</i></p>	<ul style="list-style-type: none"> • <i>Employees, contractors and construction workers should be informed to report any unusual finds during the construction phase to the ECO, in order to implement the correct procedures according to the South African Heritage Resources Act to conserve these finds appropriately.</i> 	<p><i>Low (negative)</i></p>
<p><i>Impact on animals: animals might be found during construction.</i></p>	<p><i>Medium (negative)</i></p>	<ul style="list-style-type: none"> • <i>No trapping or other method of catching of any animal or bird species may be performed by any party on the construction site</i> • <i>Any small game or other bird,</i> 	<p><i>Low (negative)</i></p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

		<p><i>reptile or amphibian specie that becomes trapped in any construction or operational related activity may not be harmed and must be placed in a suitable container. The closest SPCA must then be contacted to come and remove the animal. The SPCA will then bear the responsibility to relocate the specie to a suitable habitat.</i></p> <ul style="list-style-type: none"> • <i>No damage and/or removal of animals for cooking or other purposes will be allowed.</i> 	
<p><u>Impact on vegetation:</u> <i>sensitive vegetation may be cleared during site preparation in the construction phase.</i></p>	<p><i>Medium (negative)</i></p>	<ul style="list-style-type: none"> • <i>All significant indigenous trees and other indigenous vegetation which fall within the areas to be developed, if any, must be retained or transplanted under the supervision of a specialist.</i> • <i>No vegetation may be disturbed for any purposes i.e. firewood.</i> • <i>No damage and/or removal of indigenous plant material for cooking or other purposes will be allowed.</i> • <i>Rehabilitation should be implemented immediately after construction activities and should aim to prevent erosion and aid the return of natural, endemic and indigenous vegetation cover.</i> • <i>All barren sections of the finished construction area around the development must be wetted and stabilized to form a good medium for planting. These areas must then be reseeded with indigenous species resembling the existing specie mix.</i> • <i>Compacted soils must be loosened to a depth of 300mm and reseeded with seed of locally occurring indigenous ground covering species, where applicable.</i> • <i>Only indigenous vegetation must be planted during the operational phase to increase the biodiversity of the site and effort should be given to retain the natural character of the site as far as possible.</i> 	<p><i>Low (negative)</i></p>
<p><u>Erosion or scouring:</u> <i>due to loss of topsoil, high rainfall or poor stormwater management.</i></p>	<p><i>Medium (negative)</i></p>	<ul style="list-style-type: none"> • <i>Special attention must be given to the overall storm water design so as to increase the volume of site-specific storm water absorption thereby decreasing the volumes and velocities of storm water at the far end of the storm water system.</i> 	<p><i>Low (negative)</i></p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

		<ul style="list-style-type: none"> • <i>Special attention must also be given to the design of the storm water structures at the discharge ends of the storm water system so as not to cause erosion damage.</i> • <i>Erosion control measures should be implemented to prevent siltation and loss of existing and remaining topsoil on site.</i> • <i>All roads should be cleared of any obstruction and should be swept clean with a broom, as to avoid waste from entering storm water systems.</i> 	
<i>Impacts During the Operational Phase:</i>			
<i>Job creation (operation phase): a limited number of permanent jobs may be created during the operation phase, for maintenance and cleaning of the new pedestrian walkways.</i>	<i>High (positive)</i>	<ul style="list-style-type: none"> • <i>Members of the local community should be employed.</i> • <i>An equal number of males and females should be employed.</i> 	<i>High (positive)</i>
<i>Safety and comfort: Safer and more comfortable walkways for residents and tourists than is currently the case, as well as street furniture which is currently not present.</i>	<i>High (positive)</i>	<ul style="list-style-type: none"> • <i>No suggested mitigation.</i> 	<i>High (positive)</i>
<i>Positive visual impact: during operation the site will be much more pleasing aesthetically than is currently the case.</i>	<i>High (positive)</i>	<ul style="list-style-type: none"> • <i>No suggested mitigation.</i> 	<i>High (positive)</i>

Alternative 1 – N/A

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

Alternative 2

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

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

Ecological Assessment – Attached as Appendix G
Heritage Impact Assessment – Attached as Appendix G

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

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

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Decommissioning of the walkways is not foreseen.			

Alternative 1 – N/A

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

Alternative 2

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

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

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:

- *Reduced visibility during construction due to dust generation. This could in turn lead to accidents. **Appropriate wetting procedures as described in the EMP will deal effectively with this aspect***
- *Traffic disruptions: could lead to prolonged travelling times. **This will only be temporary and increased awareness as described in the EMP will deal effectively with this aspect if implemented.***
- *Due to employment opportunities being created, the new employees as well as their dependents can expect a better quality of life due to income being generated. **Self explanatory.***

- *Fires could lead to loss of animal lives and vegetation. This will only be temporary and increased awareness as described in the EMP will deal effectively with this aspect if implemented.*

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

Environmental impacts would be limited to the construction phase of the project, and will therefore be of a temporary nature. Impacts caused as a result of the construction phase of the proposed Temba Pedestrian Walkway and Cycle Road Network can be minimised to an acceptable level, provided that the mitigation and rehabilitation measures included in the EMP are strictly adhered to.

Socio-economically the development would have positive impacts during operation (therefore permanently) by contributing towards its local socio-economic environment through the addition of the pathways and the associated street furniture. The principle benefit would be to the local communities although the pathways will also provide services and amenities to tourists visiting the area. Although not on a grand scale, the proposed development will also create a number of new employment opportunities, which could provide noteworthy skills development opportunities in the short term (during construction), as well as sustained opportunities (maintenance) over the longer term.

Alternative 1 – N/A

Alternative 2

No-go (compulsory)

Were the proposed walkways not to be constructed, the temporary impacts that would be felt during construction would not be experienced. However, the permanent, positive impact the proposed project would have, would also not take place.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Environmental impacts would be limited to the construction phase of the project, and will therefore be of a temporary nature. Impacts caused as a result of the construction phase of the proposed Temba Pedestrian Walkway and Cycle Road Network can be minimised to an acceptable level, provided that the mitigation and rehabilitation measures included in the EMP are strictly adhered to.

Temporary impacts during construction would include:

- *Dust generation;*
- *Noise generation;*
- *Soil erosion;*
- *Risks to road and pedestrian safety;*
- *Soil and water pollution; and*
- *Loss of animals and vegetation.*

Socio-economically the development would have positive impacts during operation (therefore permanently) by contributing towards its local socio-economic environment through the addition of the pathways and the associated street furniture. The principle benefit would be to the local communities. Although not on a grand scale, the proposed development will also create a number of new employment opportunities, which could provide noteworthy skills development opportunities in the short term (during construction), as well as sustained opportunities (maintenance) over the longer term.

For alternative: - N/A

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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.

As the positive impacts far outweigh the negative impacts, and as the negative impacts can be mitigated satisfactorily, it is recommended that environmental authorisation be granted.

7. RECOMMENDATION OF PRACTITIONER

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

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:

- *Members of the local community should be employed.*
- *On-the-job training should form part of the employment period and contract, to contribute to skills development.*
- *An equal number of males and females should be employed.*
- *Local authorities (e.g. the Local Municipality, local Police, fire department, and Traffic department) as well as the surrounding land owners must be notified of the commencement of the construction activities at least 6 weeks before the actual start of the activities.*
- *The whole construction site should preferably be fenced off during construction. The principal contractor must in addition provide suitably visible signage (visible for both motorists and pedestrians) along the entire site, informing people that the site is under construction and that no access is allowed for any unauthorised persons.*
- *Areas where construction has to take place must be clearly demarcated to ensure that only these areas are stripped.*
- *A construction/management plan to specify the most appropriate time for any construction activities to commence must be implemented.*
- *Construction should occur in a phased manner to avoid long periods of disruption and exposure.*
- *Structures containing activities that may contribute to undesirable noise levels in the area must be placed and orientated to face away from areas sensitive to noise pollution as far as possible.*
- *Noisy activities related to the construction phase of the development (e.g. vehicles, compressors, workers) must be kept to the necessary minimum.*
- *Construction activities must be restricted to between 8:00 in the mornings and 17:00 in the afternoon and not on any weekend or public holidays.*
- *Construction vehicles and equipment must be regularly serviced to avoid the noise that these machines may make if in disrepair.*
- *Construction workers and staff must be supplied with sufficient protective clothing and other gear (e.g. ear plugs) and must furthermore be trained how to use this gear properly by the Occupational Health and Safety Officer.*
- *Dust suppression must be performed according to the seasonal changes and according to the prevailing site-specific circumstances via a dust suppression truck on the site roads, other construction areas and the parking areas.*
- *Vegetation along roads and landscaping of the larger development environment will help improve air quality over the long term and must therefore be planted wherever disturbed as far as possible.*
- *On completion of works, the contractor shall clear away and remove from the site all surplus material.*
- *Solid waste should be sorted into categories and those not suited to be dumped in an appropriate waste skip at the temporary facility (e.g. cement and chemicals) must be dumped at a recognized waste disposal facility designed for this purpose.*
- *A suitable site must be selected for the waste skip site and this site should only contain materials that do not pose any risk in terms of surface or sub surface environmental contamination (e.g. building rubble). This site must be suitably rehabilitated after completion of construction activities.*
- *Special attention must be given to any temporary fuel tank and its surrounding area. This area should be appropriately designed, in a watertight bunker which is able to hold 110% of the volume of the tank itself. The area should be monitored on a weekly basis to ensure that no fuel is leaking into the soils.*
- *All construction materials must be stored in designated areas that are suitable for the containment of that specific material. In the event of a spillage an appropriate environmental specialist must be contacted. The contaminated soil must be removed to a depth at which no sign of the contaminant*

is visible and replaced with healthy soils.

- *Construction vehicles and equipment must be checked and maintained on a regular basis (weekly) to ensure that no environmental contamination is brought about by oil, fuel or hydraulic fluid leakages.*
- *All soils in areas contaminated with cement dust, small oil and fuel leakages and other contaminants must be removed to an appropriate depth as per the specific contaminant as prescribed by the ECO. These soils must be replaced with suitably healthy soils (able of harbouring plant and animal life) and be stabilized by contouring the soils according to the local site contours, reseeded or replanted with soil stabilising ground covering species indigenous to the local area.*
- *No dumping of any form is permitted in the drainage area or its surrounds.*
- *Drip trays (min 10cm deep) must be placed under all vehicles awaiting maintenance, suspected of having a mechanical problem that can lead to a significant leakage, that is decommissioned and awaiting removal or that will remain on the parking area for more than one week.*
- *Vehicle maintenance may only be performed in a sealed off area with an oil impenetrable floor. In the case that the Principle Contractor cannot supply such a facility on site, all vehicles and machinery must be serviced and maintained off site.*
- *A spill recovery kit must be on site, along with trained personnel.*
- *Adequate water, sanitation and solid waste disposal services must be provided or arranged prior to commencement of construction activities.*
- *No temporary pit latrines of any kind may be allowed anywhere on the site.*
- *Sufficient numbers of temporary chemical toilets (1 per 15 people) must be installed by the PC for the time of the construction activity.*
- *Cooking on the construction site must preferably be performed by gas stoves outside where there is good ventilation.*
- *Designated fire places may be provided for in safe areas away from flammable materials. No fires may be built outside these areas.*
- *All activities and facilities where fire related activities are allowed must be equipped with appropriate fire extinguishing equipment which must be monitored and serviced by a qualified service operator on a regular basis, according to NHBRC specification.*
- *Employees, contractors and construction workers should be informed to report any unusual finds during the construction phase to the ECO, in order to implement the correct procedures according to the South African Heritage Resources Act to conserve these finds appropriately.*
- *No trapping or other method of catching of any animal or bird species may be performed by any party on the construction site*
- *Any small game or other bird, reptile or amphibian specie that becomes trapped in any construction or operational related activity may not be harmed and must be placed in a suitable container. The closest SPCA must then be contacted to come and remove the animal. The SPCA will then bear the responsibility to relocate the specie to a suitable habitat.*
- *No damage and/or removal of animals for cooking or other purposes will be allowed.*
- *All significant indigenous trees and other indigenous vegetation which fall within the areas to be developed, if any, must be retained or transplanted under the supervision of a specialist.*
- *No vegetation may be disturbed for any purposes i.e. firewood.*
- *No damage and/or removal of indigenous plant material for cooking or other purposes will be allowed.*
- *Rehabilitation should be implemented immediately after construction activities and should aim to prevent erosion and aid the return of natural, endemic and indigenous vegetation cover.*
- *All barren sections of the finished construction area around the development must be wetted and stabilized to form a good medium for planting. These areas must then be reseeded with indigenous species resembling the existing specie mix.*
- *Compacted soils must be loosened to a depth of 300mm and reseeded with seed of locally occurring indigenous ground covering species, where applicable.*
- *Only indigenous vegetation must be planted during the operational phase to increase the biodiversity of the site and effort should be given to retain the natural character of the site as far as possible.*
- *Special attention must be given to the overall storm water design so as to increase the volume of site-specific storm water absorption thereby decreasing the volumes and velocities of storm water at the far end of the storm water system.*
- *Special attention must also be given to the design of the storm water structures at the discharge ends of the storm water system so as not to cause erosion damage.*
- *Erosion control measures should be implemented to prevent siltation and loss of existing and remaining topsoil on site.*
- *All roads should be cleared of any obstruction and should be swept clean with a broom, as to avoid waste from entering storm water systems.*

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

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

EMPr attached

YES

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

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

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: 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; and