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.

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

(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 **X**

Is a list of State Departments referred to above been attached to this report? Yes **X**

if no, state reasons for not attaching the list.

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):
Hammanskraal Business Process Outsourcing and Technology (BPO&T) Park

Select the appropriate box

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

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

[ ] NO **X**

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

If yes, have you applied for the authorisation(s)? YES | NO
If yes, have you received approval(s)? (attach in appropriate appendix) YES | NO

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
Environmental Impact Assessment Regulations, GN 544 of 10 December 2010	Gauteng Department of Agriculture and Rural Development (GDARD)	10 December 2010
National Heritage Resource Act, 1999 (Act No. 25 of 1999)	Provincial Heritage Resource Agency – Gauteng (PHRAG)	28 April 1999
Integrated Environmental Management	National and Provincial	1992

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 (Alternative 1)	The construction of a new Business Process Outsourcing and Technology (BPO&T) Park. The development will utilise existing infrastructure on site and construct further infrastructure in three (3) phases. Approximately 0.46 hectares of land will be disturbed for the development of the BPO&T Park (excluding the present infrastructure) and further land will be disturbed for the construction of internal roads and infrastructure connections for bulk services. This constitutes phase 1 of the proposed development. Phase 2 and phase 3 of the development has been conceptualised, but construction of these phases will be dependent on the success of phase and therefore the need for additional infrastructure. This is indicated in the facility layout drawing below (Figure 2). The town of Hammanskraal is located approximately 50km north of Pretoria in the Gauteng Province. The property on which the BPO&T Park is to be located is the old University of Pretoria campus in Hammanskraal situated on Harry Gwala Street, in the vicinity of the Jubilee Mall. The property is located approximately 3.69km from the Hammanskraal City Centre. This preferred alternative is proposed to be located on the south-west quadrant of the property. The area presently has connections to electricity, sewage and water. All of the bulk services will require upgrading and may require additional infrastructure development to accommodate the increased number of users.

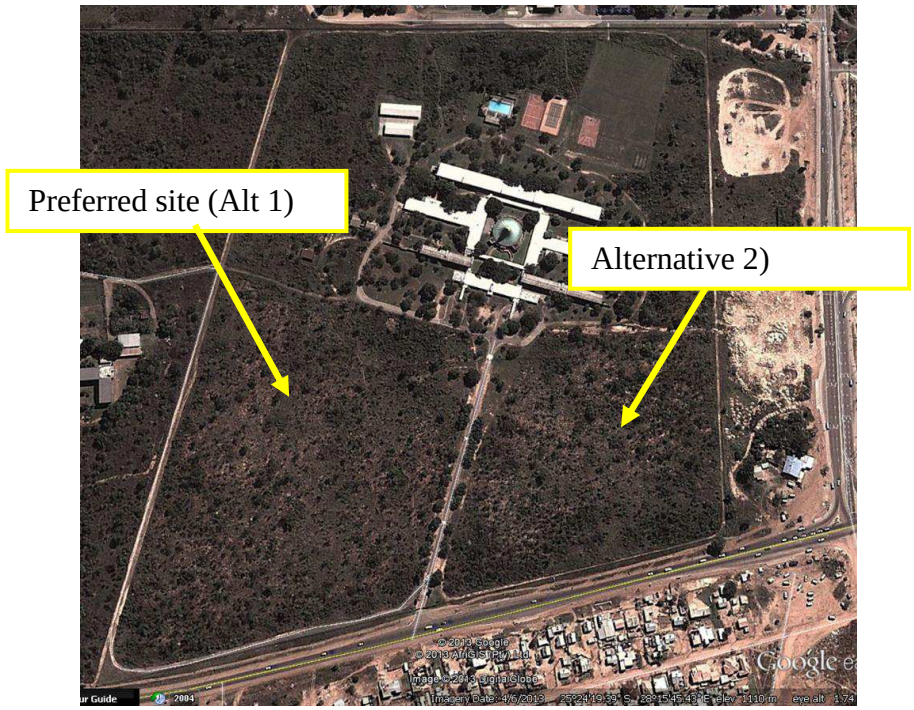

Figure 1: Proposed site of the Hammanskraal Business Process Outsourcing and Technology Park

Figure 2: Facility Layout Illustration. The present application is for phase 1 of the development.

2	Alternative 2 (Location alternative)	Alternative 2 proposes that the development takes place on the south-east quadrant of the property.

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

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:

	Size of the activity:
Proposed activity	5 ha
Alternatives:	
Alternative 1 (if any)	5 ha
Alternative 2 (if any)	
	Ha/ m^2

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	

Alternative 2 (if any)	k/km

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

	Size of the site/servitude:
Proposed activity	5 ha
Alternatives:	
Alternative 1 (if any)	5 ha
Alternative 2 (if any)	Ha/m^2

5. SITE ACCESS

Proposal (Alternative 1)

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

Describe the type of access road planned:

Although access is currently via Harry Gwala Street, an alternative access road is planned that will provide access from the Temba road. Detailed designs for the access road are not yet available.

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

Describe the type of access road planned:

Although access is currently via Harry Gwala Street, an alternative access road is planned that will provide access from the Temba road. Detailed designs for the access road are not yet available.

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

Describe the type of access road planned:

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

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

Section A 6-8 has been duplicated **1** Number of times

(only complete when applicable)

6. 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 can not be larger than 1:2000 i.e. scale can not 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 center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

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

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

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 **"insert No. of duplicates"** times

Instructions for completion of Section B for location/route alternatives

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

Section B has been duplicated for location/route alternatives **"insert No. of duplicates"** times
(complete only when appropriate)

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

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

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

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

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

1. PROPERTY DESCRIPTION

Property description: Portion R/17 of Farm Hamanskraal 112 JR
(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):**
	25.4057892°	28.2630747°

In the case of linear activities:

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

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

Addendum of route alternatives attached ☐

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat **X**	[redacted]

4. LOCATION IN LANDSCAPE

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

[redacted]	Plain **X**	[redacted]

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

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

b) are any caves located on the site(s) NO **X**
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any caves located within a 300m radius of the site(s) NO **X**
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any sinkholes located within a 300m radius of the site(s) NO **X**
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? NO **X**

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

7. GROUNDCOVER

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

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

Natural veld - good condition	Natural veld with scattered aliens	Natural veld with heavy alien infestation	Veld dominated by alien species	Landscaped (vegetation)

% = 75	% = 25	% =	% =	% =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % =	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 **X**	

If YES, specify and explain:

The nationally protected tree species *Sclerocarya birrea* occurs throughout the study area. Four faunal species of conservation concern was given a high probability of occurring on site including *Rhinolophus darling* ((Darling's Horseshoe Bat, currently listed as Near Threatened), *Aethomys ineptus* (Tete Veld Aethomys, currently listed as Near Threatened), *Atelerix frontalis* (South African Hedgehog, currently listed as Data Deficient) and *Genetta genetta* (Common Genet, currently listed as Data Deficient)

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 **X**	

If YES, specify and explain:

The proposed site of the BPO&T Park is to be located on the south-west quadrant of the portion R/17 of the farm Hamanskraal 112 JR and will measure approximately 5ha. The ecological study undertaken covered the entire 22ha property on which the facility will operate. Thus, the above-mentioned species of conservation concern were found to occur within a 200m radius of the site.

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

If YES, specify and explain:

The study site falls within the Central Sandy Bushveld vegetation type. According to Mucina and Rutherford (2006), this vegetation type is classified as Vulnerable with less than 5% conserved and 24%transformed.

Was a specialist consulted to assist with completing this section	YES **X**	

If yes complete specialist details

Name of the specialist:	Ms Karin van der Walt		
Qualification(s) of the specialist:	B.Tech (Nature Conservation) Tshwane University of Technology MSc Ecology – University of Witwaterstrand - Current		
Postal address:	P O Box 74785, Lynnwood Ridge		
Postal code:	0040		
Telephone:	012- 349 1307	Cell:	072 607 8613
E-mail:	karin@sefsa.co.za	Fax:	012- 349 1229

Are any further specialist studies recommended by the specialist?	YES **X**	NO
If YES, specify:	An assessment of impacts and the appropriate mitigation measures are detailed in the attached specialist ecological report	
If YES, is such a report(s) attached?	YES **X**	

If YES list the specialist reports attached below

Hammanskraal Business Process Outsourcing and Technology Park Ecological Assessment

Signature of specialist: _____ Date:

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

8. LAND USE CHARACTER OF SURROUNDING AREA

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

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	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

NORTH

1	**1**	**14,15**	**14,15**	**14,15**
1, 14	**1**	**14,15**	**14,15**	**14,15**
1,14	**1,14**		**14,15**	**14,15**
9	**9**	**9**	**9**	**9**
9	**9**	**9**	**9**	**9**

WEST

EAST

SOUTH

= Site

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

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

Have specialist reports been attached	YES **X**	NO
If yes indicate the type of reports below		
Phase 1 Heritage Impact Assessment		
Ecological 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.

According to Statistics SA, 2011 Census data, the Gauteng Province has a population of 12272264 persons. The City of Tshwane population equates to 34.65% of the province and Hammanskraal only 0.04% of the provincial population.

The population in Hammanskraal is fairly young, with 32.48% of the total population being younger than 15 years, as compared to approximately 23% for the City of Tshwane and the Gauteng Province respectively. The economically active population (15 to 64) of Hammanskraal is the smallest (65.98%) as compared to an average of 71% for the City of Tshwane and the Gauteng Province respectively (Table 1).

Table 1: Age

	Percentage of total		
Age	**Gauteng**	**City of Tshwane**	**Hammanskraal**
00-04	9.70%	9.37%	12.20%
05-09	7.38%	7.25%	11.22%
10-14	6.62%	6.55%	9.06%
15-19	7.54%	7.83%	8.72%
20-24	11.19%	11.66%	9.38%
25-29	12.06%	11.59%	9.47%
30-34	9.97%	9.49%	9.55%
35-39	8.24%	8.07%	9.27%
40-44	6.68%	6.75%	7.56%
45-49	5.57%	5.63%	5.36%
50-54	4.59%	4.67%	3.50%
55-59	3.57%	3.63%	2.01%
60-64	2.53%	2.61%	1.16%
65-69	1.65%	1.80%	0.62%
70-74	1.17%	1.29%	0.43%
75-79	0.73%	0.83%	0.17%
80-84	0.45%	0.55%	0.15%
85+	0.35%	0.43%	0.16%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

According to Table 2, the majority (45.86%) of persons within Hammanskraal are Setswana speaking, whereas Sepedi is most commonly spoken within the City of Tshwane (19.41%). The most prominent language within the Gauteng Province is IsiZulu (19.45%).

Table 2: Language

	Percentage of total		
Language	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Afrikaans	12.22%	18.34%	0.67%
English	13.04%	8.37%	4.05%
IsiNdebele	3.12%	5.61%	4.05%
IsiXhosa	6.48%	2.11%	0.87%
IsiZulu	19.45%	8.29%	3.12%
Sepedi	10.45%	19.41%	18.22%
Sesotho	11.36%	5.16%	4.38%
Setswana	8.92%	14.65%	45.86%
Sign language	0.44%	0.30%	0.28%
SiSwati	1.12%	1.53%	0.68%
Tshivenda	2.24%	2.30%	1.97%
Xitsonga	6.50%	8.43%	14.51%
Other/ Not applicable	4.65%	5.51%	1.33%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Black African persons form the majority of the Hammanskraal (98.44%), City of Tshwane (75.51%) and Gauteng Province (77.48%) population (Table 3).

Table 3: Population group

	Percentage of total		
Population group	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Black African	77.48%	75.51%	98.44%
Coloured	3.50%	2.05%	0.39%
Indian/ Asian	2.85%	1.80%	0.21%
White	15.53%	20.02%	0.30%
Other	0.63%	0.62%	0.67%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

The largest percentage of persons (36.17%) within Hammanskraal has some level of secondary education, whereas the City of Tshwane and the Gauteng Province population has achieved mainly a Grade 12 or Standard 10 qualification. Hammanskraal also has the largest percentage (4.50%) of persons without any form of education (Table 4).

Table 4: Education level

	Percentage of total		
Education level	**Gauteng**	**City of Tshwane**	**Hammanskraal**
No schooling	3.54%	3.98%	4.50%
Some primary	7.35%	6.62%	9.21%
Complete primary	3.27%	2.74%	3.79%
Some secondary	32.11%	27.37%	36.17%
Grade 12/ Std 10	33.47%	32.98%	34.69%
Higher	17.80%	22.81%	11.07%
Unspecified	0.55%	0.59%	0.20%
Not applicable (e.g. institutional transients)	1.92%	2.92%	0.37%
Source: Quantec Regional Data, 2013	100.00%	100.00%	100.00%

According to Table 5, Hammanskraal has the lowest employment rate (44.30%), as compared to that of Gauteng (50.74%) and the City of Tshwane (51.49%). Conversely, Hammanskraal has the highest level of unemployment (23.00%) as compared to 18.03% and 16.38% for of Gauteng and the City of Tshwane respectively.

Table 5: Employment status

	Percentage of total		
Employment status	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Employed	50.74%	51.49%	44.30%
Unemployed	18.03%	16.38%	23.00%
Discouraged work-seeker	3.37%	3.06%	5.49%
Other not economically active	27.86%	29.07%	27.20%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Of those persons that are employed, the majority are employed in the formal sector. However, Hammanskraal as a smaller percentage of persons employed in the formal sector (66.56%) than the other regions. Hammanskraal also has the largest percentage of persons employed in the informal sector (17.02%) when compared to the other regions (Table 6).

Table 6: Employment sector

	Percentage of total		
Employment sector	**Gauteng**	**City of Tshwane**	**Hammanskraal**
In the formal sector	76.23%	75.04%	66.56%
In the informal sector	9.11%	9.96%	17.02%
Private household	12.24%	12.67%	13.78%
Do not know	2.43%	2.32%	2.65%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

As can be seen in Table 7, the majority of persons within Hammanskraal (24.01%), the City of Tshwane (18.19%) and the Gauteng Province (19.47%) earn a monthly income of between R 1601 and R 3200. Hammanskraal has the largest number of persons (10.71%) without any form of income.

Table 7: Monthly individual income

	Percentage of total		
Monthly Income (Person)	**Gauteng**	**City of Tshwane**	**Hammanskraal**
No income	7.68%	7.65%	10.71%
R 1 - R 400	2.77%	2.42%	4.23%
R 401 - R 800	4.46%	3.60%	6.26%
R 801 - R 1600	11.72%	10.85%	17.40%
R 1601 - R 3200	19.47%	18.19%	24.01%
R 3201 - R 6400	15.84%	14.50%	15.69%
R 6401 - R 12800	13.20%	14.79%	8.45%
R 12801 - R 25600	10.96%	13.18%	7.71%
R 25601 - R 51200	5.59%	6.73%	0.67%
R 51201 - R 102400	1.98%	2.27%	0.14%
R 102401 - R 204800	0.59%	0.64%	0.24%
R 204801 or more	0.41%	0.46%	0.22%
Unspecified	5.33%	4.71%	4.25%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Table 8 indicates that the majority of persons within Hammanskraal (70.41%), the City of Tshwane (78.06%) and the Gauteng Province (83.41%) live within formal residential housing. However, a large percentage (29.10%) of Hammanskraal residents live within informal residential areas, as compared to an average of 10% for the City of Tshwane and the Gauteng Province.

Table 8: Enumeration area type

	Percentage of total		
Enumerator area type	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Formal residential	83.41%	78.06%	70.41%
Informal residential	9.23%	10.28%	29.10%
Traditional residential	1.24%	5.22%	0.00%
Farms	0.61%	0.58%	0.00%
Parks and recreation	0.02%	0.04%	0.00%
Collective living quarters	1.90%	2.13%	0.00%
Industrial	0.44%	0.32%	0.03%
Small holdings	2.00%	2.33%	0.00%
Vacant	0.02%	0.01%	0.01%
Commercial	1.14%	1.03%	0.45%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

As per the enumeration area types, the majority (approximately 60%) of persons within all three regions live within a house or brick or concrete block structure on a separate stand or yard or on a farm (Table 9). Almost a third of persons within Hammanskraal live within informal dwellings (shack; not in backyard; e.g. in an informal or squatter settlement or on a farm), which is much higher than the percentage for the Gauteng Province (11.11%) and City of Tshwane (12.31%).

Table 9: Dwelling type

	Percentage of total		
Dwelling type	**Gauteng**	**City of Tshwane**	**Hammanskraal**
House or brick/ concrete block structure on a separate stand or yard or on a farm	59.06%	61.25%	60.00%
Traditional dwelling/ hut/ structure made of traditional materials	0.35%	0.43%	0.09%
Flat or apartment in a block of flats	7.18%	8.18%	0.21%
Cluster house in complex	2.18%	2.11%	0.06%
Townhouse (semi-detached house in a complex)	3.52%	4.77%	0.11%
Semi-detached house	1.17%	0.62%	0.18%
House/ flat/ room in backyard	5.60%	2.91%	0.59%
Informal dwelling (shack; in backyard)	7.81%	5.68%	2.13%
Informal dwelling (shack; not in backyard; e.g. in an informal/ squatter settlement or on a farm)	11.11%	12.31%	36.31%
Room/ flatlet on a property or larger dwelling/ servants quarters/ granny flat	1.15%	0.84%	0.05%
Caravan/ tent	0.07%	0.07%	0.00%
Other	0.80%	0.84%	0.29%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Households within Hammanskraal mainly rely on electricity as form of lighting (64.12%), however, a large percentage still rely on candles and paraffin as source of lighting. The Gauteng Province (87.41%) and City of Tshwane (88.59%) has much greater access to electricity (Table 10).

Table 10: Energy for lighting

	Percentage of total		
Energy for lighting	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Electricity	87.41%	88.59%	64.12%
Candles	9.35%	9.23%	29.07%
Paraffin	2.57%	1.52%	6.20%
Solar	0.22%	0.22%	0.35%
None	0.24%	0.25%	0.21%
Gas	0.22%	0.19%	0.06%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

When considering refuse removal, the Gauteng Province and the City of Tshwane once again outperforms Hammanskraal, where only 64.01% households have their refuse removed by local authority at least once a week. A large percentage of households (12.56%) within Hammanskraal does not have access to any form of rubbish disposal (Table 11).

Table 11: Refuse removal

	Percentage of total		
Refuse Removal	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Removed by local authority at least once a week	88.33%	80.64%	64.01%
Removed by local authority less often	1.45%	1.33%	0.15%
Communal refuse dump	1.76%	2.22%	1.34%
Own refuse dump	6.11%	11.91%	19.92%
No rubbish disposal	1.98%	3.29%	12.56%
Other	0.37%	0.61%	2.03%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Once again, when considering certain key service delivery criteria, it is apparent that only 57.70% of Hammanskraal households have access to a flush toilet connected to a sewage system. A large percentage of the population (30.09%) rely on a pit latrine without ventilation (Table 12).

Table 12: Toilet facilities

	Percentage of total		
Toilet facilities	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Flush toilet (connected to sewerage system)	83.12%	76.56%	57.70%
Flush toilet (with septic tank)	2.28%	2.16%	0.29%
Chemical toilet	1.12%	0.70%	0.24%
Pit latrine with ventilation (VIP)	2.38%	2.33%	4.13%
Pit latrine without ventilation	7.42%	15.13%	30.09%
Bucket latrine	1.77%	1.00%	0.29%
Other	0.81%	0.84%	2.72%
None	1.10%	1.29%	4.56%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

Although the majority of households across all three regions has access to a regional or local water scheme (operated by municipality or other water services provider), it is apparent from Table 13 that Hammanskraal has the lowest level of access (82.76%), 11.10% less than that of the Gauteng Province.

Table 13: Access to water

	Percentage of total		
Access to water	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Regional/ local water scheme (operated by municipality or other water services provider)	93.87%	90.58%	82.76%
Borehole	2.08%	2.86%	0.35%
Spring	0.10%	0.14%	0.23%
Rain water tank	0.15%	0.17%	0.77%
Dam/ pool/ stagnant water	0.16%	0.27%	0.17%
River/ stream	0.04%	0.06%	0.06%
Water vendor	0.45%	0.63%	0.47%
Water tanker	1.76%	3.41%	14.42%
Other	1.40%	1.89%	0.80%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

As for those households that do have access to piped water (Table 14), the majority within Hammanskraal (35.91%) has access to piped water within their houses, which is however, almost 56% less than that of the City of Tshwane (64.23%).

Table 14: Access to piped water

	Percentage of total		
Access to piped water	**Gauteng**	**City of Tshwane**	**Hammanskraal**
Inside dwelling/ institution	62.10%	64.23%	35.91%
Inside yard	27.28%	24.91%	29.54%
On community stand more than 200m from dwelling	6.00%	5.28%	8.28%
On community stand between 200m and 500m from dwelling	1.78%	1.36%	12.24%
On community stand between 500m and 1km from dwelling	0.77%	0.56%	4.07%
On community stand more than 1km from dwelling	0.28%	0.25%	1.04%
None	1.80%	3.41%	8.93%
Source: Quantec Regional Data, 2013	**100.00%**	**100.00%**	**100.00%**

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 alterantives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

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

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

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

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

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

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

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

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

The buildings presently located on the larger extent of the farm portion are not yet older than 60 years. However, it is considered unique in design and, therefore, worth preserving. The investigation of the proposed study boundary revealed no objects of cultural significance or any grave.

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

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

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

The draft Basic Assessment Report was available for review and comment to the public and state departments from 28 February 2014 until 10 April 2014. During this period, no comments were received from the local authority. All other queries and comments have been collated and a comments and responses report has been produced, which is appended to this report in Appendix E6. The Final Basic Assessment will further be available for comment from 11 June 2014 to 4 July 2014.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	YES **X**

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

The draft Basic Assessment Report was available for review and comment to the public and state departments from 28 February 2014 until 10 April 2014. The Gauteng Department of Roads and Transport indicated that although they will not participate in the process, the applicant should take note that the Gauteng Strategic Transportation Network road D48 and K224 (D48) may be affected by the project. Should an application for township application, change of land use, consent use etc. be lodged with the relevant authority, then an application should also be lodged with the Gauteng Department of Roads and Transport.

Communication from SAHRA dated 28 March 2014 indicated that a relevant Phase 1 Heritage Impact Assessment Report be submitted for the proposed development. The Heritage Assessment was undertaken early in 2014 and the relevant documentation sent to SAHRA.

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

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation 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 alterative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives (complete only when appropriate) **"insert No. of duplicates"** times

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

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

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

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

All solid construction waste will be disposed of at the nearest licensed disposal site by the contractor. Details of quantities will be provided to GDARD prior to the start of construction.

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

The nearest registered waste disposal facility.

Will the activity produce solid waste during its operational phase? YES X

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

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

It is anticipated that solid waste in the operational phase will feed into the municipal waste stream. Quantities of solid waste and the provision of the service by the CoT will be confirmed prior to construction.

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? NO X

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

Details of alternative waste disposal options will be confirmed prior to construction.

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? NO **X**

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? NO **X**

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

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

Several reuse and recycling measures will be considered. This includes the separation of waste which will entail the placement of separate receptacles for glass, paper and plastic. This will be collected by a local waste recycling company.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? NO **X**

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? YES / NO

Will the activity produce any effluent that will be treated and/or disposed of on site? NO **X**

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

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

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? NO **X**

If yes, provide the particulars of the facility:

Facility name:	
Contact person:	
Postal address:	

Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

The use of grey and black water will be investigated at a later stage pending budget constraints. It is further the recommendation of the appointed architect that rainwater harvesting be implemented unreservedly and this will be further discussed and decided upon in the context of landscape design.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES **X** / [redacted]
If yes, what estimated quantity will be produced per month?	m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	[redacted] / NO **X**
Will the activity produce any effluent that will be treated and/or disposed of on site?	[redacted] / NO **X**
If yes describe how it will be treated and disposed off.	

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	[redacted] / NO **X**
If yes, is it controlled by any legislation of any sphere of government?	YES / NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.	
If no, describe the emissions in terms of type and concentration:	

2. WATER USE

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

Municipal **X**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	liters
If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix	
Does the activity require a water use permit from the Department of Water Affairs?	[redacted] / NO X
If yes, list the permits required	

If yes, have you applied for the water use permit(s)?	YES / NO
If yes, have you received approval(s)? (attached in appropriate appendix)	YES / NO

3. POWER SUPPLY

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

The City of Tshwane or Eskom will provide power for the Hammanskraal BPO&T Park. The confirmation of supply will be forwarded to GDARD prior to the start of construction.

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

4. ENERGY EFFICIENCY

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

Contemporary design features and SANS 10400-X have been incorporated into all three of the present architectural design options. Subsequent to final option being decided upon, the architect will further incorporate specifications for fenestration, lighting, temperature modulation and insulation.

The engineering service provider suggests the use of a Building Management System that centrally regulates and connects heating ventilation and air-conditioning (HVAC) installations, lighting, electric power (such as load shedding), elevators, service hot water, access control and security, telecommunications, and information management. The aim of such a system is to maintain comfort with the intention of energy conservation, as well as to maintain a productive and cost effective system.

The engineering service provider also uses a computer programme to estimate the heating and cooling loads within a building space and thereafter is able to design an energy efficient HVAC system. Such a system will allow for the selection of equipment with a heating and cooling capacity that adequately matches the needs of particular space at particular times.

Energy efficient lighting will also be an important competent of the design, with the most economical lamp, diffuser and colour rendering being chosen for each lighting application.

An energy management system may be implemented that addresses corporate tariff negotiation, corporate "spend-to-save" initiatives and departmental good housekeeping.

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

An opportunity exists for use of solar power as an alternative energy source. However, will be subject to the budgetary constraints of the project.

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.

The draft Basic Assessment Report was available for review and comment to the public and state departments from 28 February 2014 until 10 April 2014. During this period, no comments were received from any interested and affected parties. All other queries and comments have been collated and a comments and responses report has been produced, which is appended to this report in Appendix E6.

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):

A comments and responses report has been produced and accompanies this report. Please see Appendix E6.

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

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

The criteria for the description and assessment of environmental impacts were drawn from the EIA Regulations. Activities within the framework of the proposed development and their respective construction and operational phases, give rise to certain impacts. For the purpose of assessing these impacts, the project has been divided into three phases from which impacting activities can be identified, namely:

a) *Construction phase*: All the construction related activities on site, until the contractor leaves the site.
b) *Operational phase:* All activities, including the operation and maintenance of the proposed development.
c) *Decommissioning phase:* All decommissioning activities on site, until the contractor leaves the site.

The activities arising from each of these phases have been included in the impact tables. This is to identify activities that require certain environmental management actions to mitigate the impacts arising from them. The criteria against which the activities were assessed are given in the next section.

Assessment Criteria

The assessment of the impacts has been conducted according to a synthesis of criteria required by the integrated environmental management procedure.

Extent

The physical and spatial scale of the impact is classified as:

a) Footprint: The impacted area extends only as far as the activity, such as footprint occurring within the total site area.
b) Site: The impact could affect the whole, or a significant portion of the site.

c) Regional: The impact could affect the area including the neighbouring farms, the transport routes and the adjoining towns.
d) National: The impact could have an effect that expands throughout the country (South Africa).
e) International: Where the impact has international ramifications that extend beyond the boundaries of South Africa.

Duration
The lifetime of the impact, that is measured in relation to the lifetime of the proposed development.
a) Short term: The impact will either disappear with mitigation or will be mitigated through a natural process in a period shorter than that of the construction phase.
b) Short to Medium term: The impact will be relevant through to the end of a construction phase.
c) Medium term: The impact will last up to the end of the development phases, where after it will be entirely negated.
d) Long term: The impact will continue or last for the entire operational lifetime of the development, but will be mitigated by direct human action or by natural processes thereafter.
e) Permanent: This is the only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

Intensity
The intensity of the impact is considered by examining whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment itself. The intensity is rated as:
a) Low: The impact alters the affected environment in such a way that the natural processes or functions are not affected.
b) Medium: The affected environment is altered, but functions and processes continue, albeit in a modified way.
c) High: Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

Probability
This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:
a) Improbable: The possibility of the impact occurring is none, due either to the circumstances, design or experience. The chance of this impact occurring is zero (0%).
b) Possible: The possibility of the impact occurring is very low, due either to the circumstances, design or experience. The chances of this impact occurring is defined as 25%.
c) Likely: There is a possibility that the impact will occur to the extent that provisions must therefore be made. The chances of this impact occurring is defined as 50%.
d) Highly Likely: It is most likely that the impacts will occur at some stage of the development. Plans must be drawn up before carrying out the activity. The chances of this impact occurring is defined as 75%.
e) Definite: The impact will take place regardless of any prevention plans, and only mitigation actions or contingency plans to contain the effect can be relied on. The chance of this impact occurring is defined as 100%.

Mitigation
The impacts that are generated by the development can be minimised if measures are implemented in order to reduce the impacts. The mitigation measures ensure that the development considers the environment and the predicted impacts in order to minimise impacts and achieve sustainable development.

Determination of Significance – Without Mitigation
Significance is determined through a synthesis of impact characteristics as described in the above paragraphs. It provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. The significance of the impact "without mitigation" is the prime determinant of the nature and degree of mitigation required. Where the impact is positive, significance is noted as "positive". Significance is rated on the following scale:
a) No significance: The impact is not substantial and does not require any mitigation action.
b) Low: The impact is of little importance, but may require limited mitigation.
c) Medium: The impact is of importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
d) High: The impact is of major importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

Determination of Significance – With Mitigation
Determination of significance refers to the foreseeable significance of the impact after the successful implementation of the necessary mitigation measures. Significance with mitigation is rated on the following scale:
a) No significance: The impact will be mitigated to the point where it is regarded as insubstantial.
b) Low: The impact will be mitigated to the point where it is of limited importance.
c) Low to medium: The impact is of importance, however, through the implementation of the correct mitigation measures such potential impacts can be reduced to acceptable levels.
d) Medium: The impact is of major importance but through the implementation of the correct mitigation measures, the negative impacts will be reduced to acceptable levels.
e) Medium to high: Notwithstanding the successful implementation of the mitigation measures, to reduce the negative impacts to acceptable levels, the negative impact will remain of significance. However, taken within the overall context of the project, the persistent impact does not constitute a fatal flaw.
f) High: The impact is of major importance. Mitigation of the impact is not possible on a cost-effective basis. The impact is regarded as high importance and taken within the overall context of the project, is regarded as a fatal flaw. An impact regarded as high significance, after mitigation could render the entire development option or entire project proposal unacceptable.

Assessment Weighting
Each aspect within an impact description was assigned a series of quantitative criteria. Such criteria are likely to differ during the different stages of the project's life cycle. In order to establish a defined base upon which it becomes feasible to make an informed decision, it was necessary to weigh and rank all the criteria.

Ranking, Weighting and Scaling
For each impact under scrutiny, a scaled weighting factor is attached to each respective impact (Figure 1). The purpose of assigning such weights serve to highlight those aspects considered the most critical to the various stakeholders and ensure that each specialist's element of bias is taken into account. The weighting factor also provides a means whereby the impact assessor can successfully deal with the complexities that exist between the different impacts and associated aspect criteria.

Simply, such a weighting factor is indicative of the importance of the impact in terms of the potential effect that it could have on the surrounding environment. Therefore, the aspects considered to have a relatively high value will score a relatively higher weighting than that which is of lower importance.

Identifying the Potential Impacts Without Mitigation Measures (WOM)
Following the assignment of the necessary weights to the respective aspects, criteria are summed and multiplied by their assigned weightings, resulting in a value for each impact (prior to the implementation of mitigation measures).

Extent	Duration	Intensity	Probability	Weighting Factor (WF)	Significance Rating (SR)	Mitigation Efficiency (ME)	Significance Following Mitigation (SFM)
Footprint 1	Short term 1	Low 1	Probable 1	Low 1	Low 0-19	High 0,2	Low 0-19
Site 2	Short to medium 2		Possible 2	Low to medium 2	Low to medium 20-39	Medium to high 0,4	Low to medium 20-39
Regional 3	Medium term 3	Medium 3	Likely 3	Medium 3	Medium 40-59	Medium 0,6	Medium 40-59
National 4	Long term 4		Highly Likely 4	Medium to high 4	Medium to high 60-79	Low to medium 0,8	Medium to high 60-79
International 5	Permanent 5	High 5	Definite 5	High 5	High 80-100	Low 1,0	High 80-100

Figure 1: Description of biophysical assessment parameters with its respective weighting

Equation 1:
Significance Rating (WOM) = (Extent + Intensity + Duration + Probability) x Weighting Factor

Identifying the Potential Impacts With Mitigation Measures (WM)
In order to gain a comprehensive understanding of the overall significance of the impact, after implementation of the mitigation measures, it was necessary to re-evaluate the impact.

Mitigation Efficiency (ME)
The most effective means of deriving a quantitative value of mitigated impacts is to assign each significance rating value (WOM) a mitigation effectiveness rating. The allocation of such a rating is a measure of the efficiency and effectiveness, as identified through professional experience and empirical evidence of how effectively the proposed mitigation measures will manage the impact. Thus, the lower the assigned value the greater the effectiveness of the proposed mitigation measures and subsequently, the lower the impacts with mitigation.

Equation 2:
Significance Rating (WM) = Significance Rating (WOM) x Mitigation Efficiency
or WM = WOM x ME

Significance Following Mitigation (SFM)
The significance of the impact after the mitigation measures are taken into consideration. The efficiency of the mitigation measure determines the significance of the impact. The level of impact is therefore seen in its entirety with all considerations taken into account.

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

Proposal

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**
Construction Phase			
Increase in soil erosion	Low - Medium	• Vegetation should only be cleared in areas necessary for the progression of the development	Low

		and open spaces should be re-vegetated following construction; • By maintaining the maximum amount of vegetated area on site, the extent of erosion and ecosystem loss can be contained; • Topsoil and subsoil must be kept totally separate during excavation and must be stored in separate stockpile; • It is also imperative that the topsoil layer be retained and used in facilitating the reinstatement of indigenous vegetation; • When soil is replaced, excavation and installations should be carried out when the soil is at its driest, where possible; • All contaminated soils should be immediately removed and placed within a hazardous waste skip located on site, for end disposal at an appropriately licensed hazardous waste disposal site by a reputable waste disposal contractor.	
Increase in stormwater runoff	Low - Medium	• All disturbed areas must be re-vegetated with indigenous species • If necessary, a stormwater management plan may need to be compiled and implemented.	Low
Increase in noise pollution during construction	Low - Medium	• Construction must be restricted at all times to working hours (7:00 to 17:00); • Surrounding Residents/Office Blocks must be notified in advance of construction schedules, especially should construction need to be extended to beyond 17h00; • All construction equipment must be switched off when not in use; • All construction equipment must be kept in good working order; • The developers must contribute towards maintenance of the main access roads during the construction phase and ensure that the construction phase will inflict minimal damage to the road surface.	Low - medium
Increased security risk during construction phase	Low - medium	• Enclose the construction site including all works area with a temporary construction fence; • Ensure appropriate signage is visible to all adjacent areas indicating the construction activities; • Barricades and danger tape must be used to show areas of restriction within the construction site; • Employ a security company to manage the security issues on the site; • Contractors working on site must wear visible identification cards/uniforms.	Low
Increased traffic volumes	Low - medium	• Construction should take place during the school holidays when there is an expected decrease in traffic volumes; • It must be ensured that a backlog of traffic does not develop at the access points during peak hours,	Low- medium

		through the implementation of an efficient and effective access control system; and • A contribution should be made for the maintenance of the surrounding roads and consideration should be given to motivate to the municipality for a signalised intersection at Harry Gwala and Temba roads.	
Destruction of natural vegetation including	Low – medium	• It is recommended that the development be confined to the northern portion of the study area which was classified as medium ecological sensitivity and conservation importance since these areas are already affected by infestations of alien plant species and the close proximity of development and the northern and eastern border of the study area; • As far as possible, large specimens of the protected tree species, *Sclerocarya birrea* should be preserved and incorporated into the landscaping around the proposed infrastructure. Where this proves not to be possible, a permit will be required from the Department of Agriculture, Forestry and Fisheries to destroy or damage the trees; • Landscaping of the proposed infrastructure should be done with species occurring naturally within the study area. The use of non-indigenous plant species should be strictly prohibited. Should any Aloe species be used for landscaping, it should be propagated from *Aloe greatheadii var. davyana* which occurs naturally within the study area; • The area which will be impacted on by the proposed development should be fenced of and no people or vehicles should be allowed into the natural areas surrounding the construction area; and • Building material, ablution facilities or construction vehicles should not be stored in areas containing natural vegetation.	Low - medium
Operational Phase			
Increase in stormwater runoff	Low - Medium	• All disturbed areas must be re-vegetated with indigenous species • If necessary, a stormwater management plan may need to be compiled and implemented.	Low
Increased traffic volumes	Low - medium	• Construction should take place during the school holidays when there is an expected decrease in traffic volumes; • It must be ensured that a backlog of traffic does not develop at the access points during peak hours, through the implementation of an efficient and effective access control system; and • A contribution should be made for the maintenance of the surrounding roads and	Low- medium

		consideration should be given to motivate to the municipality for a signalised intersection at Harry Gwala and Temba roads.	
Positive economic growth and skills development opportunities	Medium	N/A	N/A

Alternative 1

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

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.

Appendix G1: Ecological Assessment Appendix G2: Heritage Impact Assessment

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

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

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Decommissioning and closure is not envisioned at this time.			

Alternative 1

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.

4. CUMULATIVE IMPACTS

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

The additional number of people that will be employed in the operational phase of the development will result in an increase in traffic congestion in the area, and in particular on Harry Gwala Avenue, as the entrance to the BPO&T Park will utilise the present entrance from Harry Gwala Avenue.

An additional cumulative impact of the development is positive in the creation of approximately 930 new jobs which will provide a significant contribution to the local economy.

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

5.1. Increase in soil erosion

Source and description of the impact:

Clearing of vegetation for the construction of additional buildings for the development of the BPO&T Park.

Table 15: Increase in soil disturbance and erosion

Activity	**Clearing of vegetation**			
Nature of the impact	**Increase in soil disturbance and erosion**		Status	**-**
Receiving environment	**Site and surrounding area**			
Magnitude	*Extent*	**Site (2)**		
	Intensity	**Medium (3)**		
	Duration	**Short – Medium term (2)**		
	Probability	**Likely (3)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(2 + 3 + 2 + 3) x 3 = 30* ***Low to Medium***		
	With mitigation (WM)	*WOM x ME = WM* *30 x 0.6 = 18* ***Low***		
Significance With Mitigation (WM)	**LOW**			

Mitigation Measures

- Vegetation should only be cleared in areas necessary for the progression of the development and open spaces should be re-vegetated following construction;
- By maintaining the maximum amount of vegetated area on site, the extent of erosion and ecosystem loss can be contained;
- Topsoil and subsoil must be kept totally separate during excavation and must be stored in separate stockpile;
- It is also imperative that the topsoil layer be retained and used in facilitating the reinstatement of indigenous vegetation;
- When soil is replaced, excavation and installations should be carried out when the soil is at its driest, where

possible;
- All contaminated soils should be immediately removed and placed within a hazardous waste skip located on site, for end disposal at an appropriately licensed hazardous waste disposal site by a reputable waste disposal contractor.

Significance of the impact:
The significance of this impact is regarded as low to medium without mitigation and low with mitigation. The impact is unavoidable in the context of constructing the necessary infrastructure, but can be mitigated to a large extent. There are also no watercourses in the immediate vicinity that could be adversely affected by increased sedimentation, however, it should be noted that the increased risk of soil erosion does present a risk to the stormwater management system in the area.

5.2. Increase in stormwater runoff

Source and description of the impact:
Clearance of vegetation for the construction of the necessary infrastructure

Table 2: Increase in stormwater runoff

Activity	**Clearing of vegetation during construction phase**			
Nature of the impact	**Increase in stormwater runoff from higher elevations**		Status	**-**
Receiving environment	**Sit and surrounding area**			
Magnitude	*Extent*	**Region (3)**		
	Intensity	**Medium (3)**		
	Duration	**Medium Term (3)**		
	Probability	**Likely (3)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(3 + 3 + 3 + 3) x 3 = 36* ***Low to Medium***		
	With mitigation (WM)	*WOM x ME = WM* *36 x 0.4 = 14.4* ***Low***		
Significance With Mitigation (WM)	**LOW**			

Mitigation Measures:
- All disturbed areas must be re-vegetated with indigenous species ;
- If necessary, a stormwater management plan may need to be compiled and implemented.

Significance of the impact:
The anticipated increase in stormwater runoff will be prevalent in the construction phase and the increase in paved surfaces in the operational phase will also contribute to increased stormwater runoff. The nature of the impact is regarded to be low to medium, but should the open spaces be re-vegetated adequately and further measure outlined in the EMP is adhered to, the impact can be reduced to low.

5.3. Increase in noise pollution during construction

Source and description of the impact:
Activities for the construction of the BPO&T Park will have an impact on the commercial, industrial and residential areas that immediately surround the site.

Table 3: Increase in noise pollution

Activity	**Construction activities**			
Nature of the impact	**Increase in noise level during construction**		Status	**-**
Receiving environment	**The surrounding offices and residential environment**			
Magnitude	*Extent*	**Region (3)**		
	Intensity	**Medium (3)**		
	Duration	**Short Term (1)**		
	Probability	**Highly Likely (4)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(3 + 3 + 1 + 4) x 3 = 33* *Low to Medium*		
	With mitigation (WM)	*WOM x ME = WM* *33 x 0.6 = 19.8* *Low to medium*		
Significance With Mitigation (WM)	**LOW**			

Mitigation Measures:
- Construction must be restricted at all times to working hours (7:00 to 17:00);
- Surrounding Residents must be notified in advance of construction schedules, especially should construction need to be extended to beyond 17h00;
- All construction equipment must be switched off when not in use;

- All construction equipment must be kept in good working order;
- The developers must contribute towards maintenance of the main access roads during the construction phase and ensure that the construction phase will inflict minimal damage to the road surface.

Significance of the impact:
The impact of the increased noise levels should be restricted to the time taken to construct the necessary facilities. The impact can only be limited to a point and cannot be controlled further. The implementation of the above-mentioned mitigation measures should restrict the significance of the impact to a low to medium significance. It probably cannot be mitigated to a further extent, simply due to the close proximity of the residential and commercial areas.

5.4. Increased security risk during construction phase

Source and description of the impact:
Increased levels of crime are a concern to the surrounding residents and people working in the surrounding businesses.

Table 4: Increased security risk

Activity	**Construction activities**			
Nature of the impact	**Safety risk**		Status	**-**
Receiving environment	**Area surrounding the development**			
Magnitude	*Extent*	**Region (3)**		
	Intensity	**Medium (3)**		
	Duration	**Short term (1)**		
	Probability	**Possible (2)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(3 + 3 + 1 + 2) x 3 = 27* *Low to medium*		
	With mitigation (WM)	*WOM x ME = WM* *27 x 0.6 = 16.2* *Low*		
Significance With Mitigation (WM)	**LOW**			

Mitigation Measures:
- Enclose the construction site including all works area with a temporary construction fence;
- Ensure appropriate signage is visible to all adjacent areas indicating the construction activities;
- Barricades and danger tape must be used to show areas of restriction within the construction site;
- Employ a security company to manage the security issues on the site;
- Contractors working on site must wear visible identification cards/uniforms.

Significance of the impact:
Security is usually a concern to residents in particular when new development activities occur. This impact is regarded as low to medium prior to the implementation of mitigation measures but can be mitigated to a low significance.

5.5. Increased traffic volumes

Source and description of the impact:
There will be an increase in the number of vehicles using the road during both the construction and operational phases. This could lead to an increase in the levels of traffic congestion, particularly during morning and afternoon peak traffic hours.

Table 5: Increased traffic volumes

Activity	**Construction vehicles during construction phase and increased number of road users during operational phase**			
Nature of the impact	**Increase in traffic congestion in the vicinity of the site**		Status	-
Receiving environment	**The surrounding area including access points from the national road network**			
Magnitude	*Extent*	**Region (3)**		
	Intensity	**Medium (3)**		
	Duration	**Long Term (4)**		
	Probability	**Likely (3)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(3 + 3 + 4 + 3) x 3 = 39* ***Low to Medium***		
	With mitigation (WM)	*WOM x ME = WM* *39 x 0.4 =15.6* ***Low to medium***		
Significance With Mitigation (WM)	**LOW**			

Mitigation Measures:

- Construction should take place during the school holidays when there is an expected decrease in traffic volumes;
- It must be ensured that a backlog of traffic does not develop at the access points during peak hours, through the implementation of an efficient and effective access control system; and
- A contribution should be made for the maintenance of the surrounding roads and consideration should be given to motivate to the municipality for a signalised intersection at Harry Gwala and Temba roads.

Significance of the impact:

This impact is perceived as being of low to medium significance without mitigation. The phase 1 construction will include the construction of an alternative access road from the Temba road. This will help alleviate traffic from Harry Gwala road. However, and increased volume of traffic turning into the Temba road is anticipated. With appropriate mitigation measures in place, the significance can be reduced to some extent, but it not anticipated that the impact can be reduced entirely unless the roads department of the municipality can be approached to consider the construction of a signal at Harry Gwala and Temba roads.

5.6. Destruction of natural vegetation (including a nationally protected tree species) and the disturbance of fauna

Source and description of the impact:

The clearance of vegetation for the construction phase of the project and the future operational activities will cause destruction to the natural *Combretum* veld on which the study site occurs. This will further cause habitat loss for faunal species that have been given a high probability of occurrence.

Table 6: Destruction of natural vegetation

Activity	**Construction and operational activities**			
Nature of the impact	**Loss of natural *Combretum* veld and disturbance of faunal species on site and in the immediate surroundings**		Status	-
Receiving environment	**Site and immediate surrounding**			
Magnitude	*Extent*	**Local (2)**		
	Intensity	**Medium (3)**		
	Duration	**Permanent (5)**		
	Probability	**Likely (3)**		
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(2 + 3 + 5 + 3) x 3 = 39* ***Low to Medium***		
	With mitigation (WM)	*WOM x ME = WM* *39 x 0.6 =23.4* ***Low to medium***		
Significance With Mitigation (WM)	**LOW TO MEDIUM**			

Mitigation Measures:

- It is recommended that the development be confined to the northern portion of the study area which was classified as medium ecological sensitivity and conservation importance since these areas are already affected by infestations of alien plant species and the close proximity of development and the northern and eastern border of the study area;
- As far as possible, large specimens of the protected tree species, *Sclerocarya birrea* should be preserved and incorporated into the landscaping around the proposed infrastructure. Where this proves not to be possible, a permit will be required from the Department of Agriculture, Forestry and Fisheries to destroy or damage the trees;
- Landscaping of the proposed infrastructure should be done with species occurring naturally within the study area. The use of non-indigenous plant species should be strictly prohibited. Should any Aloe species be used for landscaping, it should be propagated from *Aloe greatheadii var. davyana* which occurs naturally within the study area;
- The area which will be impacted on by the proposed development should be fenced of and no people or vehicles should be allowed into the natural areas surrounding the construction area; and
- Building material, ablution facilities or construction vehicles should not be stored in areas containing natural vegetation.

Significance of the impact:

This impact is perceived as being of low to medium significance without mitigation. With appropriate mitigation measures in place, the significance can be reduced to some extent, but it not anticipated that the impact can be reduced entirely.

5.7. Positive economic growth and skills development opportunities

Source and description of the impact:

The development of the Hammanskraal BPO&T Park will create a significant boost to the local economy, particularly through the creation of a large number of new jobs for semi-skilled labourers who will be sourced from the community of Hammanskraal. The development will also see that majority of the new jobs created are earmarked for the youth, and matriculates in particular and will provide training and experiential work experience for people in the community.

Table 7: Positive economic growth

Activity	**Operational phase of the Hammanskraal BPO&T Park**		
Nature of the impact	**Increase in economic growth potential in the vicinity of the development**	Status	**+**
Receiving environment	**The Hammanskraal region, north of Pretoria**		
Magnitude	*Extent*	**Region (3)**	
	Intensity	**Medium to High (4)**	
	Duration	**Long Term (4)**	
	Probability	**Definite (5)**	
Significance	*Without mitigation (WOM)*	*(Extent + Intensity + Duration + Probability) x Weighting Factor* *(3 + 4 + 4 + 5) x 4 = 64* ***Medium to High***	
	With mitigation (WM)	***N/A***	
Significance With Mitigation (WM)	**MEDIUM - HIGH**		

Mitigation Measures:

N/A

Significance of the impact:

The impact is considered to be of a medium to high positive significance and will provide a substantial contribution to the local economy. In context of the baseline statistics for Hammanskraal that indicate that 10.71% of the population has no income and that 55.7% of the population is either unemployed, seeking work or not economically active, this development is considered to provide a significant boost to the economy of the region. Mitigation measures are not applicable.

Alternative 1

Alternative 2

No-go (compulsory)

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

With the implementation of the appropriate mitigation measures outlined in both this document and the Environmental Management Programme, the impacts outlined may be reduced to within acceptable levels. It should also be noted that this development was specifically envisioned for the significant positive economic impact it would have for the community of Hammanskraal. The short terms impacts that will be associated with the construction phase will be short-lived and the positive benefits outweigh the negative impacts. However, appropriate consideration should be given to the exact location of the proposed BPO&T Park on the site, so as to minimise the damage to the natural veld areas.

For alternative:

For the alternative, as for the proposal, all outlined mitigation measures should be adhered to and this will allow for the development to continue with impacts being restricted to within acceptable levels. As with the proposal, the location will have to be given due consideration due to the occurrence of natural *Combretum* veld. This alternative may be further dependent on the plans by the City of Tshwane for the addition of other businesses on the same property.

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

The development is seen as positive for the community at large due the number of employment opportunities that will be created during both the construction and operational phase. A further positive point of the development is the utilisation of the existing infrastructure on site and thereafter the development of physical infrastructure required. The client has put forward the proposal for the use of alternative 1 as the preferred alternative. However, it is the opinion of the EAP that alternative 2 is the better option for the development as a smaller portion of the vulnerable vegetation type will be impacted upon during the construction and operational phases. From the ecological assessment, the location of alternative 2 has fewer occurrences of the protected tree species, *Sclerocarya birrea*.

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 **X**	

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

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

• All appropriate mitigation measures outlined in the attached EMPr are to be adhered to, as the EMPr is a legally binding document. • An independent Environmental Control Officer (ECO) must be appointed to manage the implementation of the EMPr during the construction phase. Environmental Audit reports must be compiled and be available for inspection. • All confirmations of bulk service supply from the appropriate service provider must be provided to the GDARD prior to the start of construction, including final volumes of water and domestic sewage.

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 **X**

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