



Prepared for:
Ekurhuleni Metropolitan Municipality



Contact person:
Ms Charlotta Mokheti

Tel: (011) 999 7962
Email: charlotta.mokheti@ekurhuleni.gov.za



PROPOSED TOWNSHIP ESTABLISHMENT ON THE REMAINDER OF PORTION 44 OF THE FARM FINAALSPAN 114 IR

DRAFT BASIC ASSESSMENT REPORT

DRAFT REPORT
REVISION 00

MAY 2017






Prepared by:
Delta Built Environment Consultants (Pty) Ltd

Contact person:
Gerhard Schoeman

Tel: (012) 368 1850
Fax: (012) 348 4738
Email: gerhard.schoeman@deltabec.com



DOCUMENT CONTROL

TITLE:	DRAFT BASIC ASSESSMENT REPORT		
ELECTRONIC FILE LOCATION:	P17018_REPORTS_EIA_BASIC ASSESSMENT REPORT - REV00		
REPORT STATUS:	Draft		
REVISION NUMBER:	00		
CLIENT:	Ekurhuleni Metropolitan Municipality Corner of Tom Jones Road and Elston Road Benoni Customer Care Centre 1540		
CONSULTANT:	Delta Built Environment Consultants (Pty) Ltd P.O. Box 35703 Menlo Park 0102		
DATE:	May 2017		
REFERENCE NUMBER:	P17018 / R 4157		
PREPARED BY:	Jana Liebenberg	Candidate Environmental Assessment Practitioner	
REVIEWED BY:	Gerhard Schoeman	Environmental Assessment Practitioner	
APPROVED BY:	Cilliers van der Merwe	Senior Project Manager	
DISTRIBUTION LIST:	COMPANY	NAME & SURNAME	
	Ekurhuleni Metropolitan Municipality	Ms Charlotta Mokheti	

RECORD OF REVISIONS

REV. NO.	STATUS	DESCRIPTION OF REVISION	REV. DATE
00	Draft	Issued for comments	18 May 2017

EXECUTIVE SUMMARY

The Ekurhuleni Metropolitan Municipality (EMM) Department of Human Settlements appointed Delta Built Environment Consultants (Delta BEC) to undertake an Environmental Impact Assessment for activities listed in GN R.983 and GN R.985 as per the National Environmental Management Act, 1998 (Act No. 107 of 1998): Environmental Impact Assessment Regulations, 2014, for the proposed Township Establishment on part of the Remainder of Portion 44 of the Farm Finaalspan 114 IR (Safin Extension 18).

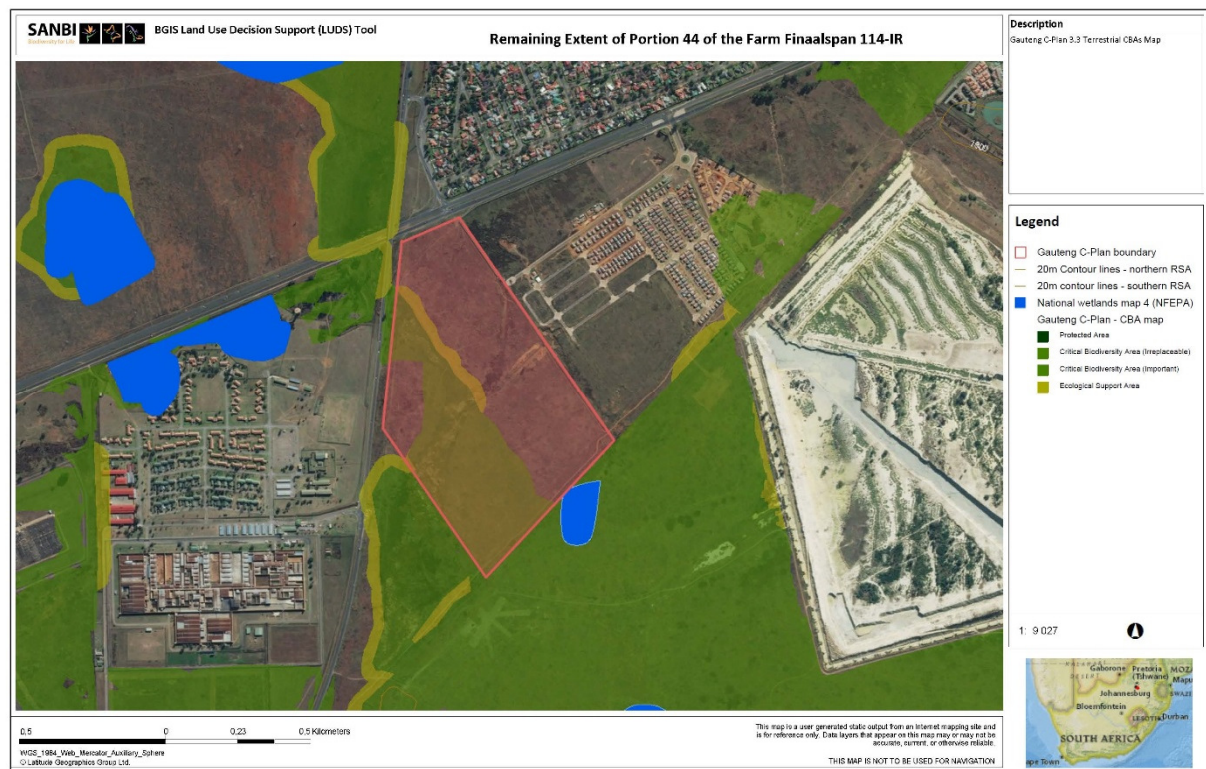


Figure 0-1: Remaining Extent of Portion 44 of the Farm Finaalspan 114 IR

Within the EMM, there is an estimated housing backlog of more than 135 000 units. Vast amounts of land are needed to address the shortage of housing in the municipality. The delivery of housing is therefore regarded as a top priorities of the EMM.

The Remainder of Portion 44 of the Farm Finaalspan 114 IR is 39,6ha in extent, however the development area for the proposed township establishment (Safin Extension 18) is 14.2ha in extent, and support the intention of the municipality to provide suitable housing and services to people within the EMM (see figure below for the proposed township establishment, Safin Extension 18).

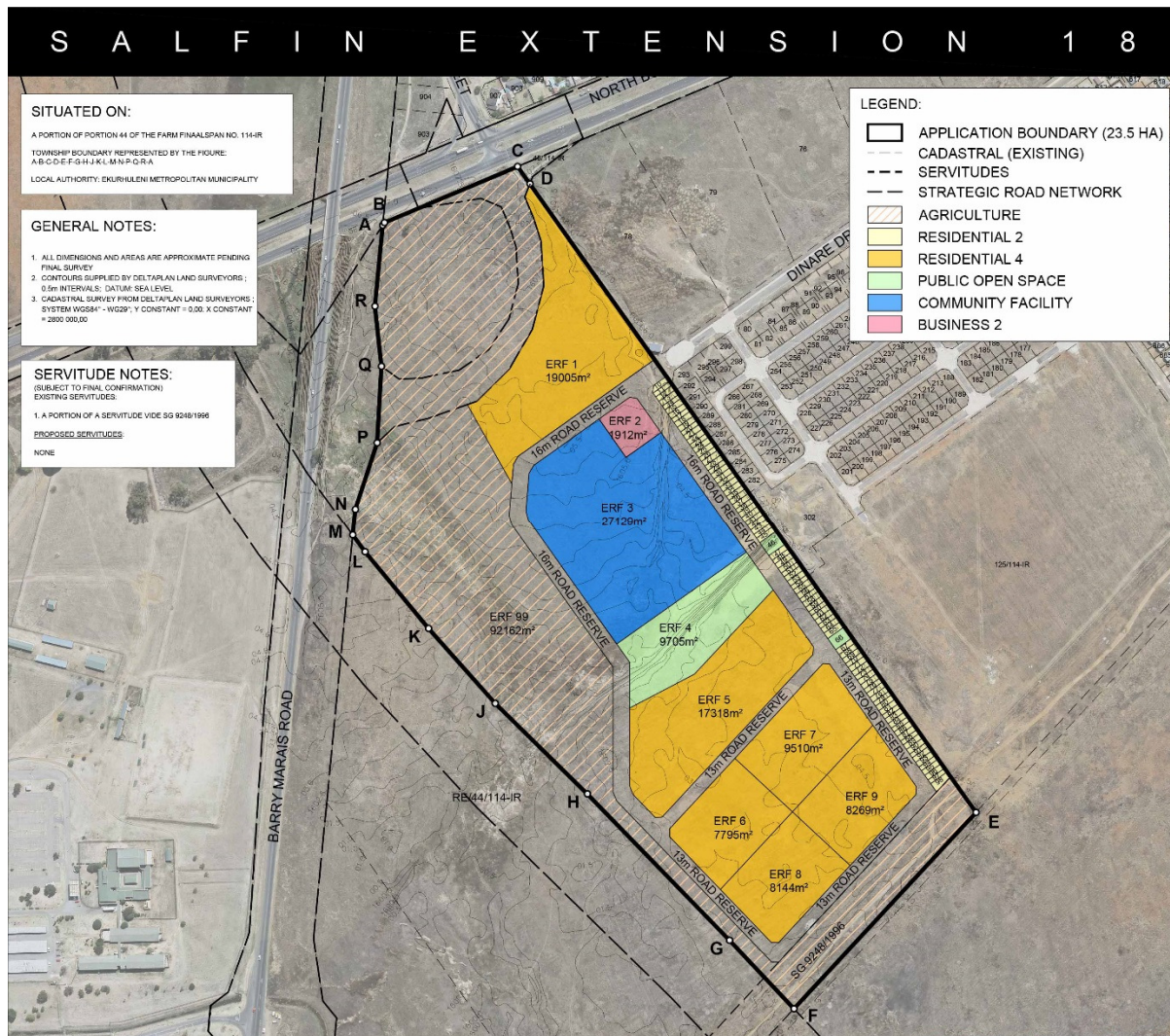


Figure 0-2: Proposed Township Establishment (Safin Extension 18)

The land status will partly change from Agriculture to a township with the proposed land uses indicated in the table below.

Table 0-1: Proposed Land Uses

Erf no.	Land Use	Area (m ²)	No. of Residential Units	Building Footprint Area/Erf
1	Residential 4	19005	136	2250
2	Business 2	1912	n/a	565
3	Education	27129	n/a	3906
4	Open Space	9705	n/a	n/a
5	Residential 4	17318	4614	280
6	Residential 4	7795	144	2384
7	Residential 4	9510	168	2781
8	Residential 4	8144	144	2384
9	Residential 4	8269	144	2384

Erf no.	Land Use	Area (m²)	No. of Residential Units	Building Footprint Area/Erf
10-45	Residential 2	3708 (avg erf size 103)	1 (36 total)	27 (972 total)
47-65	Residential 2	1982 (avg erf size 104)	1 (19 total)	27 (513 total)
67-98	Residential 2	3348 (avg erf size 105)	1 (32 total)	27 (864 total)
N/A	Roads	24580	n/a	n/a
Total		142405	1103	23617

The development parameters (height, coverage, etc.), parking, roads, open space and social amenities will be supplied according to the EMM requirements as set out in the EMM Town Planning Scheme, 2014 and other general policy documents.

The draft Basic Assessment Report (BAR) is published in conjunction with the draft Environmental Management Programme (EMPr) for public comment. Once public and statutory comment has been received the draft BAR and EMPr will be amended as required before final submission to Gauteng Department of Agriculture and Rural Development (GDARD).

The draft BAR and EMPr will detail the environmental conditions to be adhered to during the different phases of the proposed township establishment on the Remainder of Portion 44 of the Farm Finaalspan 114IR.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	II
SECTION A: ACTIVITY INFORMATION	3
1 ACTIVITY DESCRIPTION	3
2 APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES.....	3
3 ALTERNATIVES	5
4 PHYSICAL SIZE OF ACTIVITY.....	12
5 SITE ACCESS	12
6 SITE OR ROUTE PLAN	13
7 SITE PHOTOGRAPHS	14
8 FACILITY ILLUSTRATION	14
SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT	15
1 PROPERTY DESCRIPTION.....	16
2 ACTIVITY POSITION	16
3 GRADIENT OF THE SITE	16
4 LOCATION IN LANDSCAPE.....	16
5 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE	17
6 AGRICULTURE	18
7 GROUNDCOVER.....	19
8 LAND USE CHARACTER OF SURROUNDING AREA.....	28
9 SOCIO-ECONOMIC CONTEXT	29
10 CULTURAL/HISTORICAL FEATURES	31
SECTION C: PUBLIC PARTICIPATION	33
1 ADVERTISEMENT.....	33
2 LOCAL AUTHORITY PARTICIPATION.....	34
3 CONSULTATION WITH OTHER STAKEHOLDERS.....	34
4 GENERAL PUBLIC PARTICIPATION REQUIREMENTS	37
5 APPENDICES FOR PUBLIC PARTICIPATION	37

SECTION D: RESOURCE AND PROCESS DETAILS.....	39
1 WASTE, EFFLUENT AND EMISSION MANAGEMENT.....	39
2 WATER USE	42
3 POWER SUPPLY	42
2 ENERGY EFFICIENCY	43
SECTION E: IMPACT ASSESSMENT	44
1 ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES	44
2 IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE .	45
3 IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE....	68
4 CUMULATIVE IMPACTS.....	68
5 ENVIRONMENTAL IMPACT STATEMENT	69
6 IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE	71
7 RECOMMENDATION OF PRACTITIONER.....	72
8 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)	73
SECTION F: APPENDIXES.....	74
APPENDIX A: SITE PLAN	75
APPENDIX B: PHOTOGRAPHS.....	76
APPENDIX C: FACILITY ILLUSTRATION(S)	78
APPENDIX D: ROUTE POSITION INFORMATION	79
APPENDIX E: PUBLIC PARTICIPATION	80
APPENDIX F: WATER USE LICENSE(S) AUTHORISATION, SAHRA INFORMATION, SERVICE LETTERS FROM MUNICIPALITIES, WATER SUPPLY INFORMATION	102
APPENDIX G: SPECIALIST REPORTS	103
APPENDIX H: EMPR.....	104
APPENDIX I: OTHER INFORMATION	105

LIST OF FIGURES

Figure 0-1: Remaining Extent of Portion 44 of the Farm Finaalspan 114 IR	ii
Figure 0-2: Proposed Township Establishment (Safin Extension 18).....	iii
Figure 3-1: Examples of four story apartment blocks	7
Figure 3-2: Example of Double Storey Semidetached Housing Units	7

Figure 3-3: Visual representation of the proposed Township Establishment on part of the Remainder of Portion 44 of The Farm Finaalspan 114 IR (Safin Extension 18)	8
Figure 3-4: Neighbouring development's discharge outlets onto the site	9
Figure 3-5: Proposed Provincial Road Planning – Loop Link between Proposed K132 and Route K155 , North Boundary Road and Proposed Road PWV 15	10
Figure 5-0-1: No sinkholes identified within 300 m of the proposed township establishment	18
Figure 6-0-1: High Potential Agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)	19
Figure 7-0-1: Orchid (<i>Habenaria nyikana</i>)	20
Figure 7-0-2: Star Flower (<i>Hypoxis hemerocallidea</i>)	20
Figure 9-0-1: Boksburg Population Groups.....	31
Figure 10-1: Examples of fossil leaves impressions of the <i>Glossopteris</i> flora	32
Figure 7-1: Two stormwater outlets from the neighbouring development	72

LIST OF TABLES

Table 0-1: Proposed Land Uses	iii
Table 3-1: Proposed Land Uses	6
Table 1-0-1: Property description	16



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

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.

Please refer to **Appendix I – Other Information** for the proof of submission of the Draft BAR to all State Departments administering a law related to the application.

SECTION A: ACTIVITY INFORMATION

1 ACTIVITY DESCRIPTION

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

Proposed Township Establishment on part of the Remainder of Portion 44 of the Farm Finaalspan 114 IR (Safin Extension 18)

Select the appropriate box

The application is for an upgrade of an existing development

☐

The application is for a new development

☒

Other, specify

☐

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

YES

NO

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

Section 21 (c) and (i) of the National Water Act, 1998 (Act 36 of 1998) read in conjunction with Government Gazette No. 32805 of 18 December 2009 – Department of Water and Sanitation.

Section 38 of the National Heritage Resources Act, 1999 (Act 25 of 1999) applies to any person who intends to undertake a development categorised as –

(c) any development or other activity which will change the character of a site - exceeding 5 000 m² in extent.

(d) the re-zoning of a site exceeding 10 000 m² in extent.

If yes, have you applied for the authorisation(s)? (attach in Appendix F)

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
Minerals and Petroleum Resources Development, 2002 (Act No. 28 of 2002)	National	2002
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended)	National & Provincial	1998

Title of legislation, policy or guideline	Administering authority	Promulgation Date
National Water Act, 1998 (Act No. 36 of 1998)	National	1998
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	National & Provincial	2008
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	National & Local	2004
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	National	1999
Ekurhuleni Metropolitan Municipality Waste Water By-Laws	Local Municipality	2002
The Constitution of the Republic of South Africa Act, 1996 (Act No. 108 of 1996)	National	1997
GN. R 982, NEMA Environmental Impact Assessment Regulations, 2014	National & Provincial	2014
GN. R 985, NEMA Environmental Impact Assessment Regulations, 2014	National & Provincial	2014
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	National	2004
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)	Department of Labour	1993
Gauteng Provincial Environmental Management Framework (GPEMF)	Gauteng Department of Agriculture and Rural Development	2014
The Gauteng Draft Red Data Policy	Directorate of Nature Conservation	2001
Gauteng Policy on Protection of High Potential Agricultural Land	Gauteng Department of Agriculture and Rural Development	2011
GDARD Requirements for Biodiversity Assessments (Version 3.3)	Gauteng Department of Agriculture and Rural Development	2014
Ekurhuleni Biodiversity and Open Space Strategy (EBOSS)	Ekurhuleni Metropolitan Municipality	2009
Ekurhuleni Metropolitan Municipality Bioregional Plan	Ekurhuleni Metropolitan Municipality	2014
Ekurhuleni Environmental Management Framework (EMF)	Ekurhuleni Metropolitan Municipality	2007
Ekurhuleni Integrated Development Plan	Ekurhuleni Metropolitan Municipality	2013-2016

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.

Provide a description of the alternatives considered

No.	Alternative type	Description																																																																											
1	Proposal	<p>The proposed Township Establishment on part of the Remainder of Portion 44 Of The Farm Finaalspan 114 IR (Safin Extension 18) is 14.2ha in extent, and support the intention of the municipality to provide suitable housing and services to people within the EMM.</p> <p>The zoning will change from Agricultural to a township with a new zoning that could range between Residential 2 (Double Storey Semidetached Housing) and Residential 4 (Four Story Apartment Blocks) as well as zoning for amenities including open space, potentially a school (educational) and business.</p> <p>The proposed land uses and conceptual layout plan for the proposed township establishment are illustrated under Appendix A: Site Plan. The proposed land uses is described in the below table. Please note that actual numbers may change subject to detail design.</p> <p>Table 3-1: Proposed Land Uses</p> <table><tr><th>Erf no.</th><th>Land Use</th><th>Area (m²)</th><th>No. of Residential Units</th><th>Building Footprint Area/Erf</th></tr><tr><td>1</td><td>Residential 4</td><td>19005</td><td>136</td><td>2250</td></tr><tr><td>2</td><td>Business 2</td><td>1912</td><td>n/a</td><td>565</td></tr><tr><td>3</td><td>Education</td><td>27129</td><td>n/a</td><td>3906</td></tr><tr><td>4</td><td>Open Space</td><td>9705</td><td>n/a</td><td>n/a</td></tr><tr><td>5</td><td>Residential 4</td><td>17318</td><td>4614</td><td>280</td></tr><tr><td>6</td><td>Residential 4</td><td>7795</td><td>144</td><td>2384</td></tr><tr><td>7</td><td>Residential 4</td><td>9510</td><td>168</td><td>2781</td></tr><tr><td>8</td><td>Residential 4</td><td>8144</td><td>144</td><td>2384</td></tr><tr><td>9</td><td>Residential 4</td><td>8269</td><td>144</td><td>2384</td></tr><tr><td>10-45</td><td>Residential 2</td><td>3708 (avg erf size 103)</td><td>1 (36 total)</td><td>27 (972 total)</td></tr><tr><td>47-65</td><td>Residential 2</td><td>1982 (avg erf size 104)</td><td>1 (19 total)</td><td>27 (513 total)</td></tr><tr><td>67-98</td><td>Residential 2</td><td>3348 (avg erf size 105)</td><td>1 (32 total)</td><td>27 (864 total)</td></tr><tr><td>N/A</td><td>Roads</td><td>24580</td><td>n/a</td><td>n/a</td></tr><tr><td colspan="2">Total</td><td>142405</td><td>1103</td><td>23617</td></tr></table> <p><u>Residential 4 (Four Story Apartment Blocks)</u></p> <p>The four story apartment blocks will provide for a mixture of unit sizes to cater for the market demand. This includes a mixture of the number of units per residential complex, the number of units per building as well as the number of units per floor comprising of different sizes. Different unit sizes will be included in order to accommodate different individual and family size units according to market demand.</p> <p>The sizes will vary from units with a minimum unit size of 32m² - 50m². The minimum size of a Social Housing Unit must be 32m² according to legal requirements. All units will be equipped with bedrooms, kitchen and bathroom facilities. All apartment blocks will provide on site parking and open space according to municipal requirements.</p>	Erf no.	Land Use	Area (m²)	No. of Residential Units	Building Footprint Area/Erf	1	Residential 4	19005	136	2250	2	Business 2	1912	n/a	565	3	Education	27129	n/a	3906	4	Open Space	9705	n/a	n/a	5	Residential 4	17318	4614	280	6	Residential 4	7795	144	2384	7	Residential 4	9510	168	2781	8	Residential 4	8144	144	2384	9	Residential 4	8269	144	2384	10-45	Residential 2	3708 (avg erf size 103)	1 (36 total)	27 (972 total)	47-65	Residential 2	1982 (avg erf size 104)	1 (19 total)	27 (513 total)	67-98	Residential 2	3348 (avg erf size 105)	1 (32 total)	27 (864 total)	N/A	Roads	24580	n/a	n/a	Total		142405	1103	23617
Erf no.	Land Use	Area (m²)	No. of Residential Units	Building Footprint Area/Erf																																																																									
1	Residential 4	19005	136	2250																																																																									
2	Business 2	1912	n/a	565																																																																									
3	Education	27129	n/a	3906																																																																									
4	Open Space	9705	n/a	n/a																																																																									
5	Residential 4	17318	4614	280																																																																									
6	Residential 4	7795	144	2384																																																																									
7	Residential 4	9510	168	2781																																																																									
8	Residential 4	8144	144	2384																																																																									
9	Residential 4	8269	144	2384																																																																									
10-45	Residential 2	3708 (avg erf size 103)	1 (36 total)	27 (972 total)																																																																									
47-65	Residential 2	1982 (avg erf size 104)	1 (19 total)	27 (513 total)																																																																									
67-98	Residential 2	3348 (avg erf size 105)	1 (32 total)	27 (864 total)																																																																									
N/A	Roads	24580	n/a	n/a																																																																									
Total		142405	1103	23617																																																																									

Typical examples of the four storey walk-up buildings are illustrated in the figure below.



Figure 3-1: Examples of four story apartment blocks

Residential 2 (Double Storey Semidetached Housing)

The unit sizes will vary from a minimum unit size of 32 m² - 50 m². Each unit in the double storey semidetached housing unit will be equipped with bedrooms, kitchen and bathroom facilities. A typical example of a double storey semidetached housing unit is illustrated in the figure below.



Figure 3-2: Example of Double Storey Semidetached Housing Units

A visual representation of the proposed township establishment on the Remainder of Portion 44 of The Farm Finaalspan 114 IR (Safin Extension 18) is illustrated in the figure below.



Figure 3-3: Visual representation of the proposed Township Establishment on part of the Remainder of Portion 44 of The Farm Finaalspan 114 IR (Safin Extension 18)

DESCRIPTION OF ASSOCIATED INFRASTRUCTURE

The civil engineers have developed the following engineering service proposals.

WATER

Existing Bulk Services

The average daily water demand for the development will be 208 kilolitres plus fire water demand.

Although the Volgelfontein Reservoir is not in close proximity to the site, neighbouring developments north of the site (Van Dyk Park) appear to be provided by the reservoir or from the Rand Water line directly. The spare capacity of the reservoir is currently unknown.

The developments west of the site Windmill Park are reticulated by the Dawn Park Tower.

There is a 2300mm Rand Water line from Mapleton to Rynfield running along the southern boundary of the site.

Proposed Bulk Services

The proposed Township Establishment will require a two day storage of 397kl inclusive of both firewater and potable water. Should the spare be available from Vogelfontein Reservoir, bulk pipeline should then feed the elevated storage tank for the storage of 48 hours and to achieve the optimum pressure. All internal networks will be designed to provide metred connections to all erven.

SEWER

Existing Bulk Services

EMM Township Establishment falls within Rietspruit drainage district. The sewer lines in the vicinity of the site appear to be draining towards one of two of ERWAT's Waste Water Care Works, Vlakplaats in Vosloorus or Waterval Farm in Klip Rivier. The peak capacities of the plants are 83 Ml/day and 155 Ml/day respectively. The spare capacities of the plants are currently unknown.

Proposed Bulk Services

The internal sewer drainage network is to be designed as a gravity system. The proposed sewer line should connect to the existing bulk sewer line on the southern part of the site.

Estimated Sewerage Flow

The average daily sewer outflow from the development will be 107 kilolitres.

STORMWATER MANAGEMENT

Existing Bulk Services

The proposed site is located on a gradually sloping area with the surrounding area being open grasslands. The neighbouring development discharges onto the site with two outlets, constructed earth channels, discharging into the wetland towards the south western part of the site (as depicted in the figure below). The stormwater drainage on the site is mainly sheet flow.



Figure 3-4: Neighbouring development's discharge outlets onto the site

Proposed Bulk Services

It is recommended that the stormwater be attenuated for a 1 in 25 year's storm event and released into the wetland.

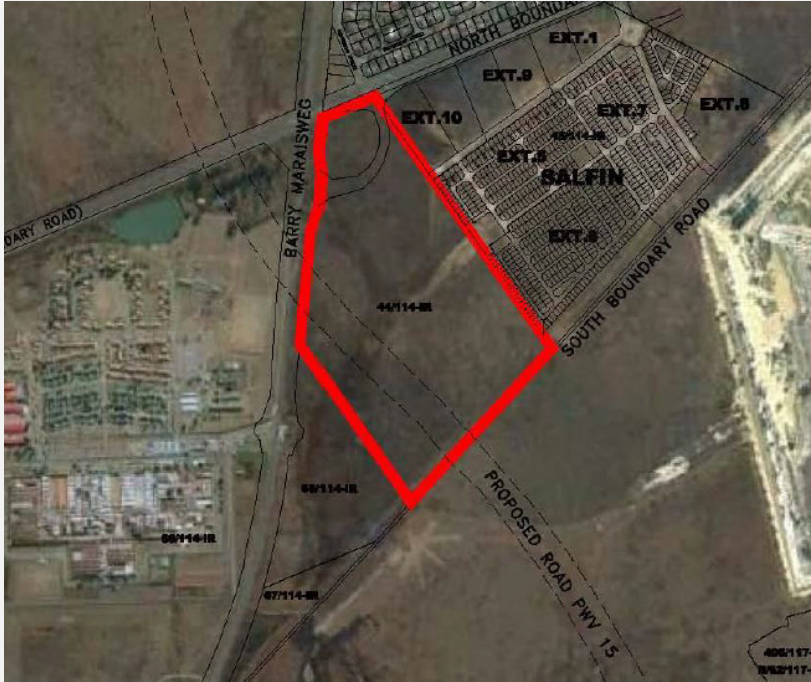
Pipe routing

The stormwater system consists of numerous kerb inlets, grid inlets and underground stormwater pipes. This network consists of underground pipes which discharge water into the open grassland from outlet structures.

Stormwater System

The stormwater system consists of combined surface, road and pipe systems. Stormwater will flow from the respective catchment areas into the nearest downstream kerb inlet, entering the stormwater pipe network and discharged into the open grassland. All pipes are sized according to a storm recurrence interval of one in twenty years.

ROADS

No.	Alternative type	Description
		<p><u>Access to the Development</u></p> <p>The proposed site currently does not have access from either North Boundary or Barry Marais Road. Future access will be obtained from the Dinare Drive in the Salfin residential development abutting the proposed development on the east.</p> <p>The figure below shows the existing major road links surrounding the site with the proposed provincial road planning, which was taken into account in the site development plan (refer to Appendix C).</p>  <p>Figure 3-5: Proposed Provincial Road Planning – Loop Link between Proposed K132 and Route K155 , North Boundary Road and Proposed Road PWV 15</p>

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

Please take note that no alternative accept for lower or higher density.

MOTIVATION FOR THE NEED AND DESIRABILITY

The draft DEADP (2009) guideline on need and desirability suggests that 'need' refers to the 'timing' of a proposed development, and 'desirability' to place. Jointly, the concepts raise questions about "wise use of land".

The DEA draft guideline further explains that, while it is essential that growth in the economy affect national policies and strategies, it is essential that the implementation of these social and economic policies take cognisance of strategic concerns such as climate change, food security as well as the sustainability of supplying natural resources and the status of our ecosystem services. EMM is a metropolitan municipality that forms the local government of the East Rand region of Gauteng province and is one of the eight metropolitan municipalities of South Africa.

Because of urbanisation, EMM has always been attractive to people from all over South Africa and Africa. The provision of housing and basic services has always been a complex matter for the increasing urban population. Based on the State of Environmental Report of the EMM, the municipality is challenged with housing backlog and a shortage of land.

The population in the EMM was recorded as 3 178 470 people during the 2011 census. (Stats SA, 2011). The population density is approximately 1 400 people per km², making Ekurhuleni one of the most densely populated areas in South Africa and in Gauteng.

The delivery of housing is one of the top priorities of the national, provincial and local spheres of government. Within the EMM area, there is an estimated housing backlog of more than 135 000 units. Vast amounts of

land (approximately 1 400 ha) are needed to address the lack of housing in the municipality. The obvious need and huge demand for formal housing is inevitable.

This has been a negative aspect for both the people in need of land, as well as for landowners. The pressing land issues result in the landless having to live in unhealthy and unsafe environments or on land illegally occupied. Currently there are 119 informal settlements in EMM.

The creation and promotion of sustainable human settlements are an important priority of EMM. The proposed Township Establishment on the Remainder of Portion 44 Of The Farm Finaalspan 114 IR (Safin Extension 18) will support the aim of the municipality to provide suitable housing and services to people within the EMM.

DISCUSSION AND MOTIVATION FOR NOT PROVIDING ALTERNATIVES

“alternatives” in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to -

- a) the property on which or location where it is proposed to undertake the activity.
- b) the type of activity to be undertaken.
- c) the design or layout of the activity.
- d) the technology to be used in the activity.
- e) the operational aspects of the activity.
- f) the option of not implementing the activity.

In terms of the definition for “alternatives” listed above, the below section provides a discussion and motivation for the exclusion of alternatives in relation to the proposed development.

- a) The property on which or location where it is proposed to undertake the activity:** The proposed site was preceded through a pipeline of land targeted by EMM for potential development based on land identification, strategic planning and feasibility studies conducted. The proposed site is vacant and within an urban area. The site is well located, at the intersection of two major sub-regional arterial routes adjacent to existing and planned residential areas. EMM has limited space available for development and needs to develop housing in order to provide for the current backlog of housing units available in the municipality. Therefore, no other location alternatives have been considered by the applicant.
- b) The type of activities to be undertaken:** The proposed site is earmarked for “Residential Development” in the Regional Spatial Development Framework (RSDF), 2015. Therefore no alternative activities have been considered by the applicant.
- c) The design or layout of the activity:** The proposed development planning and preliminary design phase have been informed by the findings and recommendations of the Wetland Resource Assessment, Biodiversity Assessment, Traffic Impact Study and other specialist studies (refer to Appendix G), aiming to avoid and or limit development impacts on sensitive features on the proposed site, as far as possible. Therefore, no other design or layout alternatives have been considered.
- d) The technology to be used in the activity:** This type of alternative is not applicable to residential developments. There is no “Technology” alternatives that can be considered for the proposed development, other than residential infrastructure that will be designed according to EMM standards.
- e) The operational aspects of the activity:** The proposed development will be operated according to the EMM requirements as set out in the EMM Town Planning Scheme, 2014 and general policy documents. No operational alternatives have been investigated for this type of development. The infrastructure will be managed and maintained by EMM. The housing stock will be managed and operated by EMM.
- f) The option of not implementing the activity:** Also familiar as the do-nothing (“no go”) option. From a social perspective, the “no go” option is not a sustainable option as the proposed site is situated within an urban residential area surrounded by existing residential suburbs. According to the zoning certificate, the site is zoned for agricultural purposes but is not currently managed or maintained accordingly. By not developing the site, there will be limited socio-economic benefits and the strategies of the municipality (i.e. job creation, provision of housing and infrastructure, reduction of poverty and skills development) will not materialise. The presence of development throughout the greater area increases the possibility that undeveloped land may be unlawfully settled, as a result of the severe pressure for housing in the municipality.

From an ecological perspective, it can be an option, because of the sensitive flora species that exist on site, however much of the ecological corridors between the site and surrounding natural areas have been lost due to residential development. The option of not implementing the project will prevent damage to the ecological features, however, the development layout will be informed by the findings and recommendations

of the Wetland Resource Assessment and the Biodiversity Assessment, aiming to prevent damage to sensitive features on the proposed site, as far as possible.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4 PHYSICAL SIZE OF 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:

142405 m²

Alternatives:

Alternative 1 (if any)

n/a

Alternative 2 (if any)

n/a

or, for linear activities

Length of the activity:

Proposed activity

n/a

Alternatives:

Alternative 1 (if any)

n/a

Alternative 2 (if any)

n/a

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

Size of the site/ servitude:

Proposed activity

14,2 Hectares

Alternatives:

Alternative 1 (if any)

n/a

Alternative 2 (if any)

n/a

5 SITE ACCESS

Proposal

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

YES

NO

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

4 m

The proposed site currently does not have access from either North Boundary or Barry Marais Road. Future access will be obtained from Dinare Drive in the Salfin residential development abutting the site on the east. However, this development is currently encircled by a wall and is developed as a "secure township" with a single entrance/exit from/to North Boundary Road.

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

Alternative 1

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

YES

NO

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

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

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 (only complete when applicable)

0

Number of times

6 SITE OR ROUTE PLAN

A detailed route (for linear activities) plan(s) have been prepared for each alternative site or alternative activity. It is attached as **Appendix A** to this document. The route plans 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 50 m 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 100 m 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 1 m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500 mm contours must be indicated on the plan
 - 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 32 m 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 are attached under the **Appendix B**. It should be supplemented with additional photographs of relevant features on the site, where applicable.

8 FACILITY ILLUSTRATION

A detailed illustration of the activity has been provided at a scale of 1:200 for activities that include structures. The illustrations are to scale and represent a realistic image of the planned activity. The illustration gives a representative view of the activity and is attached in **Appendix C**.

SECTION B: DESCRIPTION OF THE 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 sections of the route times

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 (Farm name, portion etc.). The maps of the properties are presented in the table below.

Table 1-0-1: Property description

No	Property Name	Owner	Title deed	Size
1	Remainder of Portion 44 of the Farm Finaalspan 114 IR	Four Falcon Crest CC	T40453/1988	39.5614 Ha

2 ACTIVITY POSITION

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

Alternative:

Latitude (S):

Longitude (E):

26°16'27.25"S

28°17'28.63"E

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

•Starting point of the activity

•Middle point of the activity

•End point of the activity

For route alternatives that are longer than 500 m, co-ordinates taken every 250 meters along the route and are attached in **Appendix D**.

Addendum of route alternatives attached

N/A

3 GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

4 LOCATION IN LANDSCAPE

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

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

5 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

The land has a low susceptibility to water erosion, due to the gently sloping land. Soils have favourable erodibility index. Land is somewhat susceptible to wind erosion.

(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 300 m 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 300 m 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

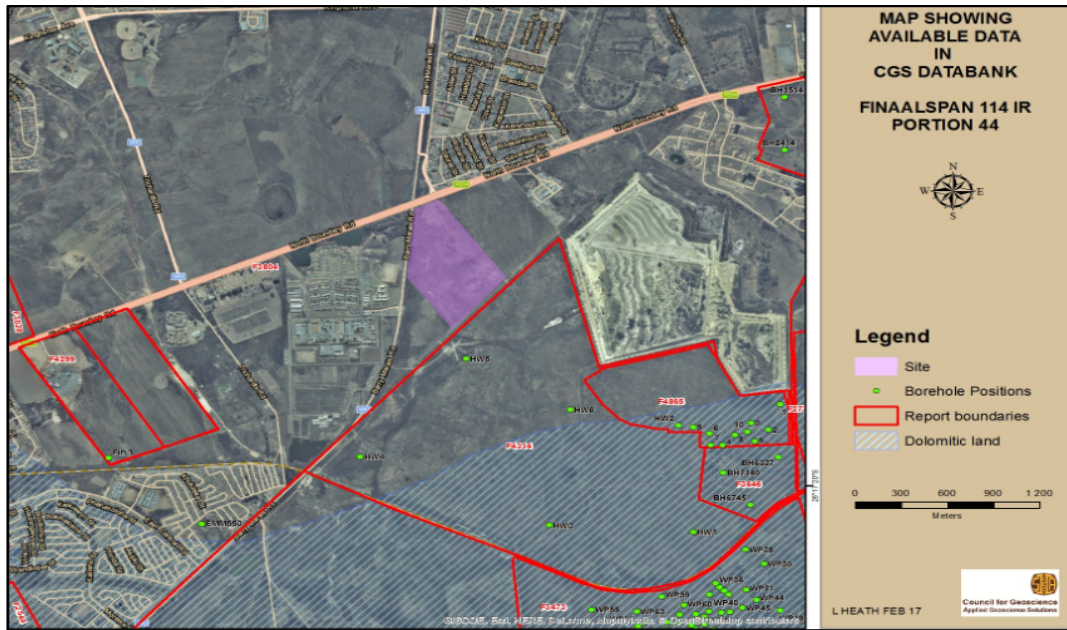


Figure 5-0-1: No sinkholes identified within 300 m of the proposed township establishment

The proposed development is underlain by fine- to coarse-grained sandstone, shale, coal seams of the Vryheid Formation and is not considered to be dolomitic. Hence, no record exists of any sinkholes within a 300 m radius of the site.

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.

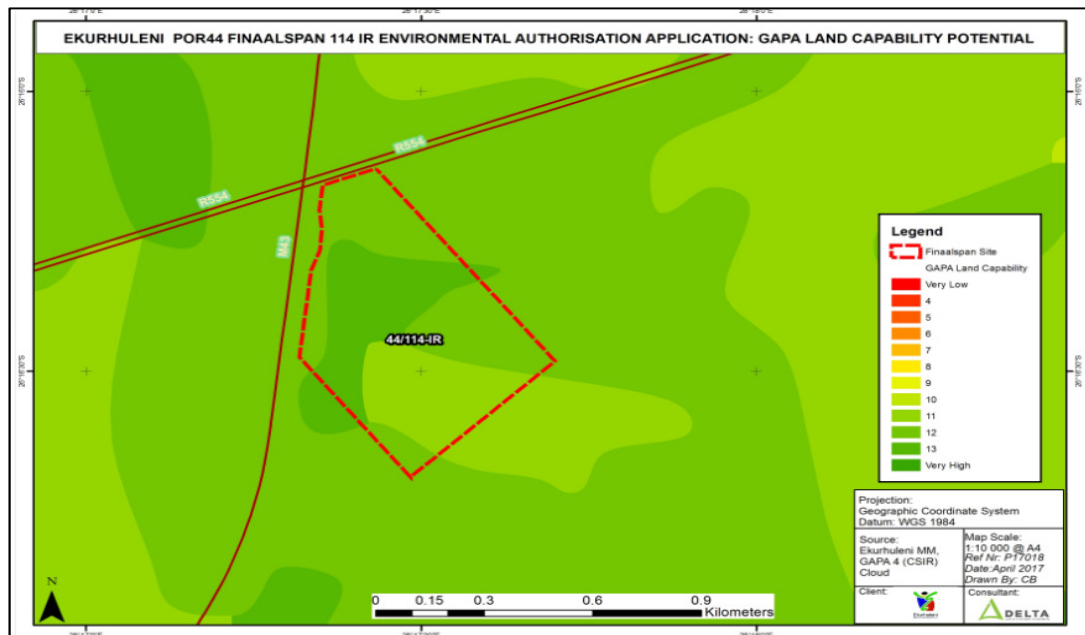


Figure 6-0-1: High Potential Agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)

Please note that the above figure illustrate that the site has high to very high agricultural potential. According to the Gauteng Policy on the protection of agricultural land, all land identified and classified as high potential agricultural land but incorporated completely within the boundaries of the urban edge will not be regarded as viable agricultural land for future agricultural production.

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 % = 30	Natural veld with scattered aliens % = 25	Natural veld with heavy alien infestation % = 15	Veld dominated by alien species % = 17	Landscaped (vegetation) % = 0
Sport field % = 0	Cultivated land % = 5	Paved surface (hard landscaping) % = 1	Building or other structure % = 2	Bare soil % = 5

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/-ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES NO

If YES, specify and explain:

A Biodiversity Assessment was conducted in March 2017 by The Biodiversity Company (refer to Appendix G). The timing of the study represented late wet-season conditions. The project was ground-truthed on foot, which included spot checks in pre-selected areas to validate desktop data. Photographs were recorded during the site visit. The fieldwork attempted to classify the fauna, flora and habitats, with emphasis on recording the actual and potential presence of Red Data species (also referred to as Red-Listed and Orange-Listed species), which are species of conservation concern in South African (either classified as threatened by the IUCN, 2014, protected by NEMBA, 2014 or other legislations applicable provincially or nationally).

7.1 FLORAL SPECIES OF CONCERN

Desktop Findings

An integrated list of plant species of conservation concern was compiled by the specialist, based on information received from GDARD and the Plants of South Africa (POSA) database. Based on these sources 23 red or orange list plant taxa have historically been recorded within the topographical grid square QDS 2628A.

Field Survey Findings

Threatened or Protected Plant Species (TOPS) Plant Species

No Threatened or Protected Plant Species (TOPS) listed species were recorded within the study area.

Red and Orange and Protected Plant Species

Two plant species of conservation concern were identified. These were *Habenaria nyikana* (Orchid) and *Hypoxis hemerocallidea* (Star flower), illustrated in the figures below.



Figure 7-0-1: Orchid (*Habenaria nyikana*)



Figure 7-0-2: Star Flower (*Hypoxis hemerocallidea*)

A site sensitivity map was compiled based on the outcome of the desktop and field assessments. The location of the plant species of conservation concern are plotted in the Sensitivity Map below.

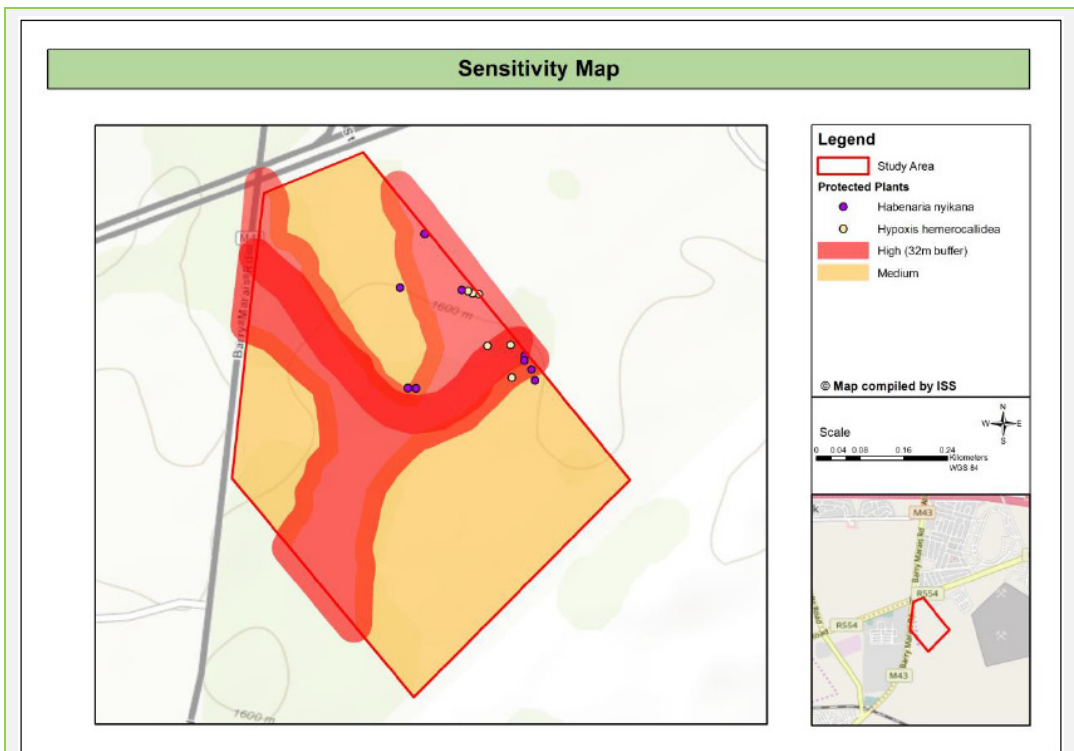


Figure 7-3: Sensitivity Map

7.2 FAUNAL SPECIES OF CONCERN

7.2.1 AVIFAUNA

Desktop Findings

Based on the South African Bird Atlas Project Version 2 there are 279 bird species expected to occur in QDS 2628AD. Of these bird species, 19 (6.8% of expected species) are listed as being of conservation importance either on a regional or global scale.

The expected bird species list includes:

- Two (2) species that are listed as Endangered (EN) on a regional basis.
- Six (6) species that are listed as Vulnerable (VU) on a regional basis.
- Nine (9) species that are listed as Near Threatened (NT) on a regional basis.

On a global scale, none of the expected species are listed as EN, 2 as VU and 6 as NT. The full list of potential bird species is provided in Appendix G-Biodiversity Assessment-Page 13.

Field Survey Findings

A total of 15 bird species were observed in the project area during the March 2017 survey. No regionally or globally important bird species were recorded during the survey. However, *Tyto capensis* (Grass owl) were recorded in similar wetland habitat types at Leeuwpoort approximately 3.5 km north-west of Finaalspan. This species is rated as VU in South Africa, Lesotho and Swaziland (ESKOM, 2014). *Tyto capensis* is a habitat specialist and mainly restricted to the open, grassy habitats of marshes, wetlands and floodplains. The likelihood of this species occurring in the project area is rated as good. The likelihood of occurrence of other bird species of conservation concern on anything other than an incidental basis is low.

7.2.2 MAMMALS

Desktop Findings

The IUCN Red List Spatial Data (IUCN, 2017) lists 85 mammal species that could be expected to occur within the project area. Of these mammal species, 12 species are listed as being of conservation concern on a regional or global basis. Refer to Appendix G-Biodiversity Assessment-Page 14. The list of potential species includes 4 species that are listed as VU on a regional basis and 7 that are listed as NT. On a global scale, 1 species is listed as EN, 1 as VU and 4 as NT.

Field Survey Findings

No mammal species were observed during the March 2017 survey. The habitat preferences of the 12 potential mammal species that may occur in the project area were assessed. Refer to Appendix G-Biodiversity Assessment-Page 26.

Two (2) species are rated as good likely to occur in the project area. Both species are listed as Near Threatened (NT) and would occur in grasslands and wetlands.

- Cape clawless otter (*Aonyx capensis*); and
- African marsh rat (*Dasymys incomtus*).



Figure 7-4: Cape clawless otter (*Aonyx capensis*)



Figure 7-5: African Marsh rat (*Dasymys incomtus*)

Four (4) species are rated as moderately likely to occur in the project area.

- Spotted-necked otter (*Hydrictis maculicollis*)
- White tailed rat (*Mystromys albicaudatus*)
- South African hedgehog (*Atelerix frontalis*)

7.2.3 HERPETOFAUNA (REPTILES & AMPHIBIANS)

Desktop Findings

Based on the IUCN Red List Spatial Data (IUCN, 2017) and the Reptile Map database provided by the Animal Demography Unit there are 28 reptile species expected to occur in the project area. None of the expected species are listed as being of conservation concern either on a regional or global scale.

Based on the IUCN Red List Spatial Data (IUCN, 2017) and the Amphibian Map database provided by the Animal Demography Unit (ADU, 2017), 17 amphibian species are expected to occur in the project area. Of the expected amphibian species, *Pyxicephalus adspersus* (Giant bullfrog) is listed as NT on a regional scale. None of the expected species are listed as being of conservation concern on a global scale.

Field Survey Findings

No reptiles or amphibians were observed during the survey. Given the extent of grassland and wetland habitats the likelihood of reptiles and amphibians occurring on the site is good. The likelihood of the NT amphibian species *Pyxicephalus adspersus* (Giant bullfrogs) occurring on the site is good.

Are there any rare or endangered flora or fauna species (including red list species) present within a 200 m (if within urban area as defined in the Regulations) or within 600 m (if outside the urban area as defined in the Regulations) radius of the site.

YES

NO

If YES, specify and explain:

The sensitivity of habitats within a 200 m buffer of the project boundary was assessed at a desktop level, illustrated in the figure below.



Figure 7-6: Sensitivity assessment of vegetation communities outside the project boundary but within the 200 m buffer

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

YES

NO

If YES, specify and explain:

According to the Gauteng Conservation Plan Version 3.3., No NFEPA wetlands are located within the project area. NFEPA wetlands classified as flat are located to the west and east of the project area.

However, The Biodiversity Company was commissioned to conduct a water resource assessment (refer to Appendix G), consisting of baseline aquatic and wetland assessment for the proposed Finaalspan 113 IR Housing Development in the Gauteng Province. A site visit was conducted in March 2017 which would constitute a wet season survey.

SUB-QUATERNARY REACH (SQR) C22C-1381

NFEPA's

No registered NFEPA's

Present Ecological State

F (Critically Modified)

Ecological Importance

Low

Ecological Sensitivity

Moderate

WETLAND ASSESSMENT

Two (2) HGM units were identified within the project assessment boundary, namely:

- Unchannelled Valley Bottom (HGM 1).
- Hillslope Seep (HGM 2).

The valley bottom wetland was determined to be in a moderately modified state (Class C), with the hillslope seep wetland determined to be in a largely modified state (Class D). The wetland delineation is shown in the below figure.



Figure 7-7: Delineated wetlands

(HGM 1) Unchannelled Valley Bottom

An unchannelled valley bottom wetland was identified for the study, flowing into the site from the north and east, with a confluence within the project area. The wetlands soils are permanently saturated and characterised by the Rensburg and Katspruit soil.

(HGM 2) Hillslope Seep

The hillslope seep areas are adjacent to the valley bottom wetlands. The slopes are characterised by bleached soils (E horizons), and patches of *Imperata cylindrica*.

HYDROLOGY

The hydrology of the general project areas has been altered to some extent. The development of the area which includes residential developments, roads and mining have contributed to hydrological changes within the area. Attempts have been made to drain and divert water from the existing adjacent development abutting the project site, which has also affected surface and interflow across the area, and also altered the flow regime of the receiving valley bottom system.

GEOMORPHOLOGY

The geomorphology of the valley bottom wetland area is largely intact. The hillslope seepage areas have been directly impacted on, and it appears that a residential development was constructed on a portion of the seepage area. Additionally, stormwater trenches have been constructed in the seepage area which has resulted in sections of the seep becoming desiccated.

VEGETATION

The vegetation of the entire area has been modified considerably. It is apparent that the area has previously been cultivated, which has also altered the state of the vegetation. The establishment of alien vegetation is excessive, specifically within the valley bottom wetlands.

Table 7-3: The PES results for the project area

Wetland	Area (ha)	Hydrology		Geomorphology		Vegetation	
		Rating	Score	Rating	Score	Rating	Score
HGM 1	6.0	C: Moderately Modified	2.7	B: Largely Natural	1.6	E: Seriously Modified	7.2
Overall PES Score		3.7		Overall PES Class		C Moderately Modified	
HGM 2	3.9	D Largely Modified	5.2	C Moderately Modified	2.7	D Largely Modified	4.8
Overall PES Score		4.4		Overall PES Class		D Largely Modified	



Figure: 7-8: PES ratings for the wetlands

ECOSYSTEM SERVICES ASSESSMENT

The Ecosystem services provided by the HGM types present at the study area were collectively assessed and rated using the WET-EcoServices method. The summarised results for the HGM units are shown in Table 7-4. The unchanneled valley bottom wetland had an overall intermediate level of service, with flood attenuation, streamflow regulation, sediment trapping and erosion control showing moderately high levels of

services: The hillslope seep wetland had an overall moderately low level of service, with erosion control showing moderately high levels of services. The remaining services for the HGM types were scored as intermediate or lower.

Table 7-4: Eco – Services rating of likely extent to which a benefit is being supplied

SCORE	RATING OF LIKELY EXTENT TO WHICH A BENEFIT IS BEING SUPPLIED
< 0.5	Low
0.6 – 1.2	Moderately Low
1.3 – 2.0	Intermediate
2.1 – 3.0	Moderately High
>3.0	High

Table 7-5: Eco Services provided by the wetlands at the project area

Wetland Unit				Unchannelled Valley Bottom	Hillslope Seep	
Ecosystem Services Supplied by Wetlands	Indirect Benefits	Regulating and supporting benefits	Flood attenuation		2.1	1.1
			Streamflow regulation		2.2	1.4
			Water Quality enhancement benefits	Sediment trapping	2.4	1.3
				Phosphate assimilation	1.8	1.2
				Nitrate assimilation	1.7	1.3
				Toxicant assimilation	1.9	1.2
				Erosion control	2.2	2.3
				Carbon storage		1.2
	Direct Benefits	Biodiversity maintenance		1.2	0.8	
		Provisioning benefits	Provisioning of water for human use	0.6	0.0	
			Provisioning of harvestable resources	0.0	0.0	
			Provisioning of cultivated foods	0.0	0.0	
		Cultural benefits	Cultural heritage	0.1	0.1	
			Tourism and recreation	0.6	0.3	
			Education and research	0.5	0.5	
Overall				18.5	12.4	
Average				1.2	0.8	

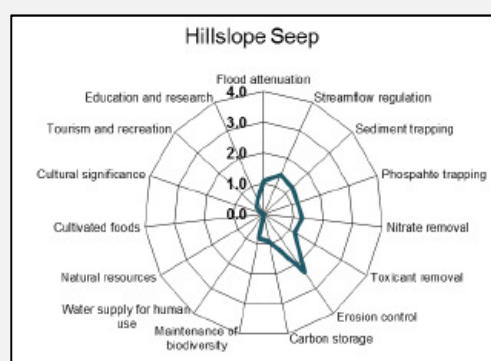
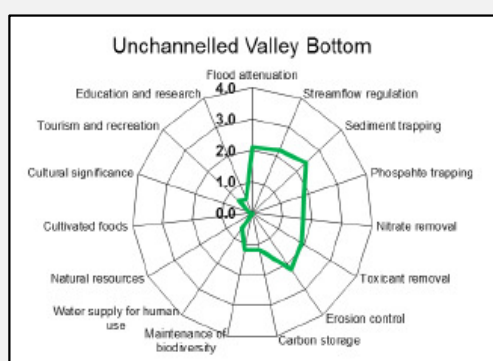


Figure 7-8: Spider Diagram for Eco-Services rendered by the HGM types

ECOLOGICAL IMPORTANCE & SENSITIVITY (EIS)

The EIS assessment was applied collectively to the HGM types described in the previous section in order to assess the levels of sensitivity and ecological importance of the systems. The results of the assessment are shown in Table 7-6.

The HGM types showed a Moderate (Class C) level of importance for the Ecological Integrity & Sensitivity and also the Hydrological Importance. The level of importance for the Direct Human benefits was rated to be moderately important (C) and low (D) for the valley bottom and seepage wetlands respectively.

Table 7-6: EIS Results

WETLAND IMPORTANCE AND SENSITIVITY	
<i>Unchannelled Valley Bottom</i>	
	Importance
ECOLOGICAL IMPORTANCE SENSITIVITY	1.8
HYDROLOGICAL/ FUNCTIONAL IMPORTANCE	1.9
DIRECT HUMAN BENEFITS	1.5
<i>Hillslope Seep</i>	
	Importance
ECOLOGICAL IMPORTANCE SENSITIVITY	1.2
HYDROLOGICAL/ FUNCTIONAL IMPORTANCE	1.3
DIRECT HUMAN BENEFITS	0.3

Was a specialist consulted to assist with completing this section

YES

NO

If yes complete specialist details

Name of the specialist:

Dale Kindler

Qualification(s) of the specialist:

MSc (University of Johannesburg) – Aquatic Health

Postal address:

420 Vale Avenue, Ferndale

Postal code:

2194

Telephone:

081 319 1255

Cell:

0825921970

E-mail:

dale@thebiodiversitycompany.co.za

Fax:

086 527 1965

Are any further specialist studies recommended by the specialist?

YES

NO

If YES, specify:

A hydropedology study

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

YES

NO

If YES list the specialist reports attached below

Signature of specialist:



Date:

22 March 2017

Name of the specialist:

Andrew Husted

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Qualification(s) of the specialist:	MSc Aquatic Health SACNASP 400213/11
Postal address:	420 Vale Avenue, Ferndale
Postal code:	2194


Telephone:	081 319 1255	Cell:	081 319 1255
E-mail:	andrew@thebiodiversitycompany.com	Fax:	086 527 1965

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: A hydropedology study

If YES, is such a report(s) attached? YES NO

If YES list the specialist reports attached below

Signature of specialist:		Date:	22 March 2017
--------------------------	---	-------	---------------

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

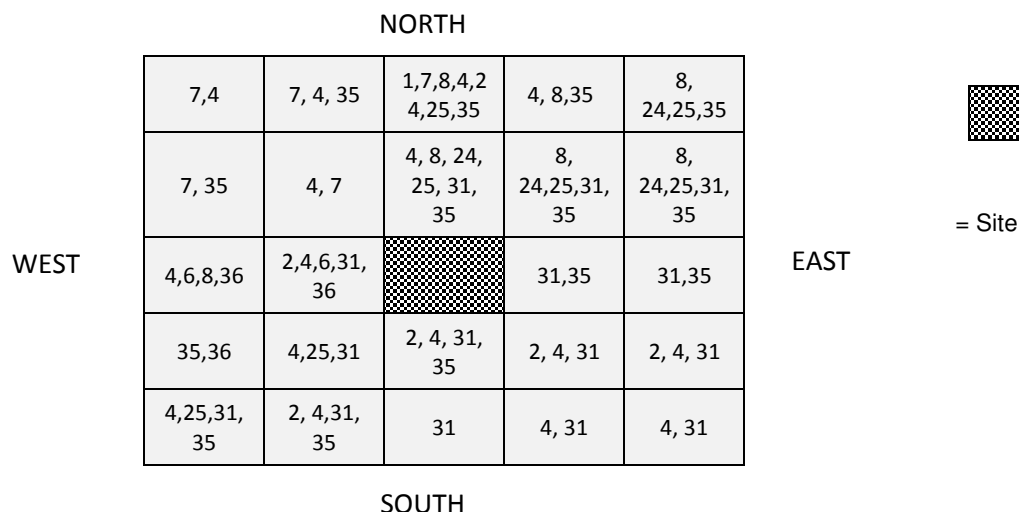
Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500 m radius around the site.

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. Archaeological site

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):	35. Utilities 36. Services			

NOTE: Each block represents an area of 250 m X 250 m



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

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

Have specialist reports been attached

YES

NO

If yes indicate the type of reports below

Refer to **Appendix G** for the following specialist reports:

- Wetland Resource Assessment
- Biodiversity Assessment.
- Heritage Impact Assessment.
- Paleontological Impact Assessment.
- Air Quality Assessment.
- Traffic Impact Assessment
- Geotechnical 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.

CITY REGION

The proposed township establishment is situated in Boksburg and falls in Ward 31 and planning Region F. The region can be characterised as a residential area consisting of large expanses of the high, medium and low-income housing.

Region F is favourably located in the economic activity and employment area of Gauteng Province. Furthermore, the region, being located close to the main transport routes of the N3 and N12, is well situated to continue its core industrial role in the region, which includes the industrial townships of Wadeville, Alrode and Rondebult, which will further enhance the development potential of the region.

Region F can be described as a compact region with a good balance between its residential population and integrated industrial and commercial capability linked closely to Oliver Tambo International Airport and the City of Johannesburg Metropolitan Municipality. Urban development in Region F is located throughout the region on either side of the major arterials that traverse the region.

Region F is a substantially developed region already, with little opportunity for extensive development opportunities within the existing urban footprint. The existing industrial townships within the region are surrounded by either residential development or the Natalspruit River, which is prohibitive to expansion and further growth or residential densification close to work opportunities.

Numerous housing initiatives are proposed for the region, located in most instances on vacant land within or on the outskirts of the existing residential environment.

POPULATION DYNAMICS

The population in the EMM was recorded as 3 178 470 people during the 2011 census. (Stats SA, 2011).

Age and gender profile - The majority of the population is the working-age (15 to 64) and is mainly male dominated (65.5%).

Education - The level of adult education indicates that 23.2% has completed secondary school or attained a higher education qualification, while 3 % have received no schooling. The majority (35.8%) of the population have attained some primary education (Stats SA, 2011).

Living Conditions - There are 1 015 465 households in EMM with an average household size of 2.9 persons. The majority of households (57, 2%) have access to running water inside the dwelling unit and a large part of the population (85%) has access to flush sanitation systems. Most of the households have access to electricity, with 82, 2% of households using electricity for lighting. The majority of the population (88.4%) refuse is removed by the local authority or a private company on a weekly basis (Stats SA, 2011).

ECONOMIC POTENTIAL

Main economic activities - EMM are dominated by manufacturing economic activities, often named “the workshop of the country”. (Stats SA, 2011).

Employment and Income status - The majority of the working-age population of EMM is employed (49%), while the second most of the working-age population is not economically active (27%).

The majority of EMM population (31.9%) household income range is between R19 601 and R76 4000.

POPULATION DYNAMICS

Racial composition - The racial composition of EMM is presented in the graph below (Stats SA, 2011). The population of Boksburg consist out of 57% Black African, 28% white, 12% is coloured, 2% Indian/Asian and 1% is made up of other population groups.

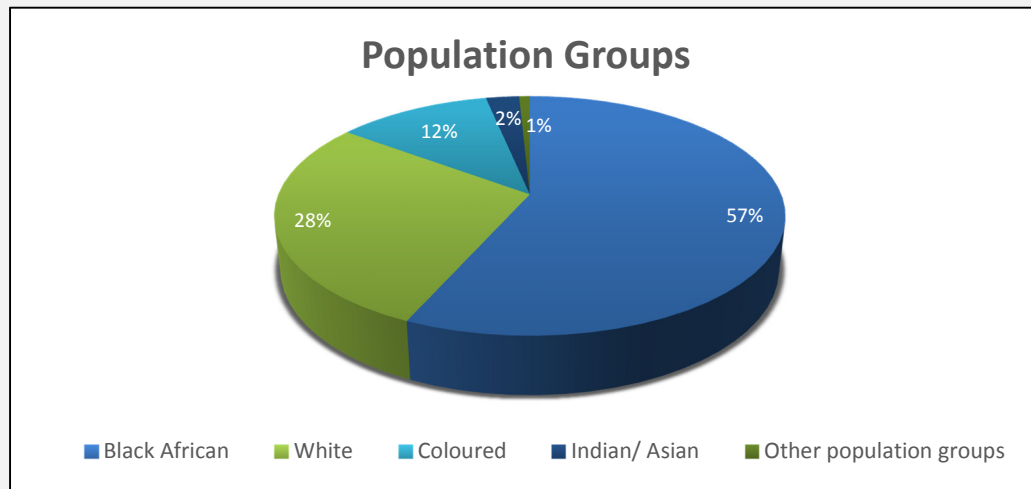


Figure 9-0-1: Boksburg Population Groups

Black African persons form the majority of the EMM population (79%).

Language

Afrikaans (29%), English (19%) and isiZulu (15%) are the predominant languages in Boksburg.

10 CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure.

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

- a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;*
- b) the construction of a bridge or similar structure exceeding 50 m in length;*
- c) any development or other activity which will change the character of a site-*
 - i. exceeding 5 000 m² in extent*
 - ii. involving three or more existing erven or subdivisions thereof*
 - iii. involving three or more erven or divisions thereof which have been consolidated within the past five years*
 - iv. the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority.*
- a) the re-zoning of a site exceeding 10 000 m² in extent*
- b) 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 20 m) to the site?

YES

NO

If YES, explain:

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

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

CULTURAL HERITAGE IMPACT ASSESSMENT

J A van Schalkwyk, the heritage consultant who conducted the Phase 1 Cultural Heritage Impact Assessment, stated in the report (refer to Appendix G) that no sites, features or objects of cultural heritage significance were identified in the study area. Should any sites, features or objects of cultural heritage significance are exposed during development activities, the proposed mitigation measures stipulated in the Environmental Management Programme (EMPr) must be implemented. Refer to **Appendix H** for the EMPr.

PALEONTOLOGICAL IMPACT ASSESSMENT

According to the SAHRS paleosensitivity map, the area is red which means there is a high probability of fossils occurring in the area. Professor Marion Bamford, the paleontologist who conducted the paleontological impact assessment, stated in the report (refer to **Appendix G**) that fossil plants are very rarely preserved in the shales of the Dwyka Group and can be common in the shales of the Vryheid Formation, however, they can be very sporadic.

No fossils, however, have been reported from the sediments as they are neither coals nor kaolinite which are known to preserve fossil plants.

There is a very small chance of finding fossils in the top few metres and these would be shales with leaf impressions of the *Glossopteris* flora, illustrated in Figure 10-1. However, the probability of affecting any fossils is unlikely or seldom.

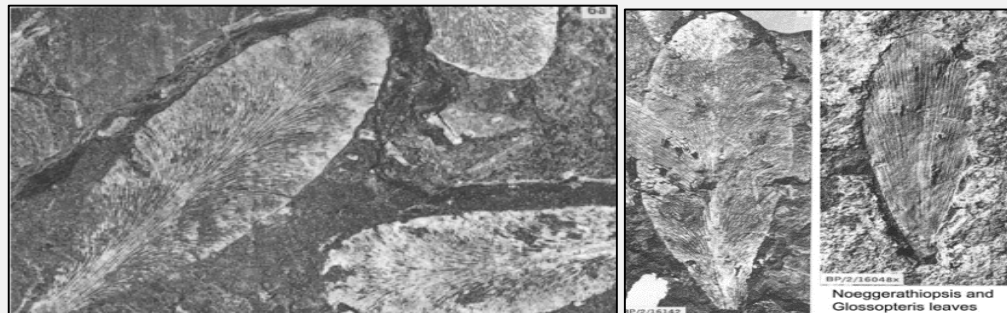


Figure 10-1: Examples of fossil leaves impressions of the *Glossopteris* flora

No fossils have been reported from this particular area.

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 –

- 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;

Site notices were placed on 15 March at the following locations:

- i) Site Notice 1: At the property intended for the proposed township establishment. Coordinates: 26°16'8.52"S; 28°17'25.69"E.
- ii) Site Notice 2: At the property intended for the proposed township establishment. Coordinates: 26°16'16.13"S; 28°17'19.07"E
- iii) Site Notice 3: At the entrance to van Dyk Park Centre. Coordinates: 26°15'36.63"S; 28°17'41.20"E.
- iv) Site Notice 4: At the Van Dyk Park Spar. Coordinates: 26°15'37.61"S; 28°17'44.58"E.

Please refer to the site notices in **Appendix E1**

- b) Inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;

Notice of the application was given to all landowners and occupiers of adjacent land by means of post and Email. The written notice contained a Background Information Document and a I&AP Registration Form (**Appendix E2**).

- 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;

Proof attached in **Appendix E2**.

- 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;

Notice was given to Cllr Jacqueline Reilly (Councillor – DA Ward 31) via email. See proof of notice in **Appendix E2**.

- 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;

Notices were sent to EMM, refer to **Appendix E2**.

- 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

Notices were sent to DPW, DRDLR, DWS, DEA and GDARD. A case was created on SAHRA's website, refer to **Appendix E2**.

- 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.

A newspaper advertisement was placed in the Tame Times on 14 March 2017 (**Appendix E3**).

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):

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

It should be noted that the Draft BAR is currently subjected to a public participation process for at least 30 days. After the 30 days the Basic Assessment Report and EMPr will reflect the incorporation of any comments received, including any comments of the local authority.

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 comment below (also attach any correspondence to and from the stakeholders to this application):

Comments from Alderman Jackie Reilly (Ward Councillor)

16.03.2017

Please could the exact nature of the development be provided?

Response to Alderman Jackie Reilly (Ward Councillor)

16.03.2017

We herewith confirm receipt of your correspondence dated 16 March 2017 forwarded to us by electronic mail. Kindly note that the compilation of the Basic Assessment Report (BAR) is still in progress and will include further information of the proposed project. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Comments from Tshego Manale (Office of the Director General: Department of Rural Development and Land Reform)

17.03.2017

Your email dated 16 March 2017, regarding the above subject matter is hereby acknowledged with thanks. May I please request that you contact the office of the Deputy Director General: Spatial Planning and Land Use Management(SPLUM please contact Tel: 012 312 9602/9851 Malebo.baloi or Pule Saila e-mail: Malebo.baloi@drdlr.gov.za or Ramaleho.saila@drdle.gov.za

Response to Tshego Manale (Office of the Director General: Department of Rural Development and Land Reform)

27.03.2017

We herewith confirm receipt of your correspondence dated 17 March 2017 forwarded to us by electronic mail. The office of the Deputy Director General: SPLUM will be informed of the proposed project as requested. Your participation is highly appreciated.

Comments from George Congo (Gauteng Department of Roads and Transport)

23.03.2017

You are kindly informed that this department will not be able to participate in the above mentioned Environmental Impact Assessment Process. However, note must be taken that the Gauteng Strategic Transportation Network namely provincial roads (PWV15, (K155) and K132 (P58-1) are affected and as such in terms of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001), when an application for a township establishment, change of land use (rezoning, subdivision consent use etc) is lodged with the relevant authority, the said application must be lodged with this Department for evaluation.

Note: must be also taken that an application must be submitted to this Department for a way leave for any part of the proposed service falls within 95 m (measured from the centreline of any of the Departments existing or future road(s)/ railway line.

Where mining operations are to be undertaken, Section 49 of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001) shall apply. These conditions are laid down in terms of delegated authority in terms of the provisions of the Gauteng Transport

Infrastructure Act, Act No 8 of 2001 and do not exempt the applicant/ owner/ successor-in-title from the provisions of any other law.

Response to George Congo (Gauteng Department of Roads and Transport)

27.03.2017

We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by electronic mail. The comments have been noted and will be considered during the preparation of the Basic Assessment Report (BAR). We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province and will keep you informed of the proceedings. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Comments from Dlonysios Arvanitakis (Landowner of property)

23.03.2017

Owner of property. The form refers to an individual. The property is a close corporation is it the right form?

Response to Dlonysios Arvanitakis (Landowner of property)

27.03.2017

We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by facsimile. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Comments from Chris Marshall (I&AP)

28.03.2017

Need information urgently regarding the layout of the proposed housing development as well as the road networks.

Response to Chris Marshall (I&AP)

28.03.2017

As telephonically discussed, we herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR. All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.

Comments from Dave Cheeseman / Peter vd Merwe (I&AP)

07.04.2017

Our interest is in what is planned for the development and common connection linkages between the properties.

Response to Dave Cheeseman / Peter vd Merwe (I&AP)

12.04.2017

We herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR.

All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.

Comments from Nicholas John Boek (Carnival City Development)

20.04.2017

As adjoining property owners we need to be informed of the proposed development and how the discharge of stormwater from our property will be handled on the proposed development. I do not have any objections regarding the proposed development and I therefore wish to express my consent or no-objection for the proposed project.

Response to Nicholas John Boek (Carnival City Development)

20.04.2017

We herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR.

All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.

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 attached **Appendix E**. The information in this Appendix is ordered as detailed below.

Appendix E1: Proof of site notice

Appendix E2: Written notices issued to those persons detailed in Section C1 (b) to (f) above

Appendix E3: Proof of newspaper advertisements

Appendix E4: Communications to and from persons detailed in Section C 2 and 3 above

Appendix E5: Invitation to attend the public information session, the attendance register and minutes of the public and stakeholder meeting

Appendix E6: Comments and Responses Report

Appendix E7: Comments from I&APs on Basic Assessment (BA) Report

Appendix E8: Comments from I&APs on amendments to the BA Report

Appendix E9: Copy of the register of I&APs

Appendix E10: Comments from I&APs on the application

Appendix E11: Other.

SECTION D: RESOURCE 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
2. Each alternative needs to be clearly indicated in the box below
3. Attach the above documents in a chronological order

Section D has been duplicated for alternatives

0

times

Section D Alternative No.

(complete only when appropriate for above)

1 WASTE, EFFLUENT AND EMISSION MANAGEMENT

Solid waste management

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

YES

NO

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

Approximately 42m³

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

Construction waste will comprise mainly of vegetation, construction material and general waste from site personnel (including packets, plastic, rubble, off-cut building materials, etc.). Construction waste must be kept in bins within the construction site and be collected and disposed of on a weekly basis at the nearest landfill site.

Spoil material will consist mainly of excess spoil material from soil excavation and trenching activities. Spoil material will be reused where possible (as backfill or erosion mitigation works) while excess spoil will need to be disposed of off-site. Spoil material will be hauled with tipper trucks to a pre-determined spoil site identified on the site layout plan.

General waste must be kept in bins and must be collected and disposed of on a weekly basis at the nearest landfill site.

Hazardous waste will comprise mainly of spent canisters for paints and solvents. The safe disposal will be the responsibility of the respective contractor and shall be disposed of at a suitably licensed landfill site or recycled as required. Certificates of safe disposal must be obtained and records must be kept on site.

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

Solid Waste will be disposed of at an appropriate waste disposal/Landfill site. The Rooikraal Landfill in Boksburg and the Rietfontein landfill in Springs are possible landfills in which solid waste could be disposed of.

Will the activity produce solid waste during its operational phase?

YES

NO

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

12m³

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

Solid waste consisting of household and garden waste will be collected and disposed of weekly as per the Ekurhuleni Metropolitan Municipality waste collection schedule.

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)?

A general waste storage area should be provided in such circumstances where resident could dispose their solid waste until such waste can be disposed of at the nearest local waste landfill site.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES

NO

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

Is the activity that is being applied for a solid waste handling or treatment facility?

YES

NO

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

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

The "demolition" waste generated by the construction activities and not posing a pollution hazard, will be used as a filling material on the site.

Should no filling be required, this waste will be collected in waste skips and disposed of at a licensed landfill site.

Domestic waste generated during the construction will be separated where possible, into recyclable and non-recyclable waste. Recyclable waste will be collected in separate waste skips and removed by a licenced waste collector and delivered to reputable recycling facility.

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?

m³

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 onsite?

Yes	NO
-----	----

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

m ³

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

--

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

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

YES	NO
-----	----

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

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?

The estimated average monthly sewer outflow from the development will be 3210 kilolitres.

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.

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:

Local fugitive dust emissions will be released during the construction phase - impact limited to the site and the local area outside the site boundary.

The impact will be minimised through the implementation of mitigation measures i.e. dust/wet suppression and wind speed reduction methods as recommended in the EMPr.

2 WATER USE

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

municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
------------------	---------------------------	-------------	----------------------------	-------	---------------------------------

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

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

Section 21 (c): impeding or diverting the flow of water in a watercourse.

Section 21 (i): altering the bed, banks, course or characteristics of a watercourse.

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

The site is adjacent to the current Salfin developments and north of Helderwyk X 8. The required electricity capacity is not available in the area. However, a new Point of Delivery (POD) is planned for the area. Eskom has already been paid for the provision of the 88/11kV supply point. The EMM Electricity Department is also busy with the planning of the new 88/11kV substation which will eventually consist of 4 C 40MVA transformers. The proposed 88/11kV substation will be within close proximity of the proposed development.

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

N/A

2 ENERGY EFFICIENCY

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

The ultimate aim should be to consider energy efficient measures during the design, construction and operational phase of the development with the aim of increasing the sustainability of the development.

The following aspects could be considered during the design phase:

- Use of energy efficient materials, equipment and fittings.
- The use of local labour and materials must be encouraged, thus eradicating the expense and energy consumption of transport.
- The use of labour intensive methods should be employed (where possible), to save the use of pneumatic equipment that requires a high energy input.

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

Same as above

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.

Comments from Alderman Jackie Reilly (Ward Councillor)

16.03.2017

Please could the exact nature of the development be provided?

Comments from Dlonysios Arvanitakis (Landowner of property)

23.03.2017

Owner of property. The form refers to an individual. The property is a close corporation is it the right form?

Comments from Chris Marshall (I&AP)

28.03.2017

Need information urgently regarding the layout of the proposed housing development as well as the road networks.

Comments from Dave Cheeseman (I&AP)

07.04.2017

Receive herewith attached our application as I & AP stakeholders. Kindly keep us informed of related matters. Portion 44 pf Farm Finaalspan 114 IR is located on the northern boundary of our property. Our interest is in what is planned for the development and common connection linkages between the properties.

Comments from Nicholas John Boek (Carnival City Development)

20.04.2017

As adjoining property owners we need to be informed of the proposed development and how the discharge of stormwater from our property will be handled on the proposed development. I do not have any objections regarding the proposed development and I therefore wish to express my consent or no-objection for the proposed project.

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):

Refer to Appendix E7 for the full report of comments received.

Response to Alderman Jackie Reilly (Ward Councillor)

16.03.2017

We herewith confirm receipt of your correspondence dated 16 March 2017 forwarded to us by electronic mail. Kindly note that the compilation of the Basic Assessment Report (BAR) is still in progress and will include further information of the proposed project. We

confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Response to Dlonysios Arvanitakis (Landowner of property)

27.03.2017

We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by facsimile. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Response to Chris Marshall (I&AP)

28.03.2017

As telephonically discussed, we herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR. All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.

Response to Dave Cheeseman (I&AP)

07.04.2017

We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by facsimile. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

Response to Nicholas John Boek (Carnival City Development)

27.03.2017

We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by facsimile. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

2 IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

The methodology utilised in the rating of significance of impacts are described below.

The first stage of the risk/impact assessment is the identification of environmental activities, aspects and impacts. This is supported by the identification of receptors and resources, which allows for an understanding of the impact pathway and an assessment of the sensitivity to change. The definitions used in the impact assessment are presented below.

- An **activity** is a distinct process or task undertaken by an organisation for which a responsibility can be assigned. Activities also include facilities or infrastructure that is possessed by an organisation.
- An **environmental aspect** is an 'element of an organizations activities, products and services which can interact with the environment. The interaction of an aspect with the environment may result in an impact.
- **Environmental risks/impacts** are the consequences of these aspects on environmental resources or receptors of particular value or sensitivity, for example, disturbance due to noise and health effects due to poorer air quality. In the case where the impact is on human health or wellbeing, this should be stated. Similarly, where the receptor is not anthropogenic, then it should, where possible, be stipulated what the receptor is.
- **Receptors** can comprise, but are not limited to, people or human-made systems, such as local residents, communities and social infrastructure, as well as components of the biophysical environment such as wetlands, flora and riverine systems.
- **Resources** include components of the biophysical environment.
- **Frequency** of activity refers to how often the proposed activity will take place.
- **Frequency** of impact refers to the frequency with which a stressor (aspect) will impact on the receptor.
- **Severity** refers to the degree of change to the receptor status in terms of the reversibility of the impact, sensitivity of receptor to stressor, duration of impact (increasing or decreasing with time), controversy potential and precedent setting, threat to environmental and health standards.
- **Spatial extent** refers to the geographical scale of the impact.
- **Duration** refers to the length of time over which the stressor will cause a change in the resource or receptor.

The significance of the impact is then assessed by rating each variable numerically according to the defined criteria. The purpose of the rating is to develop a clear understanding of influences and processes associated with each impact. The severity, spatial scope and duration of the impact together comprise the consequence of the impact and when summed can obtain a maximum value of 15. The frequency of the activity and the frequency of the impact together comprise the likelihood of the impact occurring and can obtain a maximum value of 10. The values for likelihood and consequence of the impact are then read off a significance rating matrix and are used to determine whether mitigation is necessary.

The assessment of significance is undertaken twice. Initially, significance is based on only natural and existing mitigation measures (including built-in engineering designs). The subsequent assessment takes into account the recommended management measures required to mitigate the impacts. Measures such as demolishing infrastructure, and reinstatement and rehabilitation of land, are considered post-mitigation.

The model outcome of the impacts is then assessed in terms of impact certainty and consideration of available information. The Precautionary Principle is applied in line with the South Africa's National Environmental Management Act (No. 108 of 1997). In instances of uncertainty or lack of information, the assigned ratings or adjusting final model outcomes are increased. In certain instances, where a variable or outcome requires rational adjustment due to model limitations, the model outcomes have been adjusted.

The below tables stipulates the criteria for assessing significance of impacts (Significance =. Likelihood x Consequence)

LIKELIHOOD DESCRIPTORS

Probability of Impact	RATING
Highly unlikely	1
Possible	2
Likely	3
Highly likely	4
Definite	5
Sensitivity of Receiving Environment	RATING
Not sensitive/important	1
Limited sensitivity/importance	2
Moderately sensitive/ /important	3
Highly sensitive /important	4
Critically sensitive /important	5

CONSEQUENCE DESCRIPTORS

Severity of Impact	RATING
Insignificant / ecosystem structure and function unchanged	1
Small / ecosystem structure and function largely unchanged	2
Significant / ecosystem structure and function moderately altered	3
Great / harmful/ ecosystem structure and function Largely altered	4
Disastrous / ecosystem structure and function seriously to critically altered	5
Spatial Extent of Impact	RATING
Activity specific/ < 5 ha impacted / Linear features affected < 100 cm	1
Development specific/ within the site boundary / < 100ha impacted / Linear features affected < 100 m	2
Local area/ within 1 km of the site boundary / < 5000ha impacted / Linear features affected < 1000 m	3
Regional within 5 km of the site boundary / < 2000ha impacted / Linear features affected < 3000m	4
Entire habitat unit / Entire system/ > 2000ha impacted / Linear features affected > 3000 m	5
Duration of Impact	RATING
One day to one month	1
One month to one year	2
One year to five years	3
Life of operation or less than 20 years	4
Permanent	5

Significant rating matrix

	CONSEQUENCE (Severity + Spatial Extent + Duration)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LIKELIHOOD (Probability + Sensitivity)	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150

Positive/ Negative Mitigation Ratings

Significance Rating	Value	Negative Impact management recommendation	Positive Impact management recommendation
Very High	126 - 150	Consider the viability of the project. Very strict measures to be implemented to mitigate impacts according to the impact mitigation hierarchy if the project is to proceed.	Actively promote the project.
High	101 - 125	Consider alternatives in terms of project execution and location. Ensure designs take environmental sensitivities into account and ensure management and housekeeping is maintained and attention to impact minimisation is paid according to the impact mitigation hierarchy.	Promote the project and monitor ecological performance
Medium High	76 – 100	Consider alternatives in terms of project execution and ensure management and housekeeping is maintained and attention to impact minimisation is paid according to the impact mitigation hierarchy.	Implement measures to enhance the ecologically positive aspects of the project while managing any negative impacts
Medium Low	51 - 75	Risk and impact on aspects are notable and require mitigation measures on a higher level, which costs more and require specialist inputs.	Implement measures to enhance the ecologically positive aspects of the project while actively managing any negative impacts.
Low	26 - 50	Acceptable as is or consider requirement for mitigation. Impacts are regarded as small and easily mitigated.	Monitor ecological performance and pay extensive attention to minimizing potential negative environmental impacts
Very Low	1 - 25	Promote the project.	Actively seek measures to implement impact minimization according to the impact mitigation hierarchy and identify promoted

An impact assessment following the above methodology will be undertaken where the anticipated impacts on the ecological environment arising from the project will be assessed. The significance of each impact will be determined for each phase of the project

life cycle. Following the assessment of impacts, migratory measures will be developed which will aim to lessen or negate the significance of the identified impacts.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Aspect	PLANNING AND DESIGN								Significance impact after mitigation
	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	
Water Resources	Loss of wetlands (including services)	Permanent	Local area	Great	Certain	Ecology highly sensitive	Very High Negative	<ul style="list-style-type: none"> The footprint area of the layout must be limited, taking measures to limit impact on the wetland areas, and the associated buffers. Adhere to the minimum buffer zones for the wetland. Energy dissipaters must be incorporated into the design for discharge locations to prevent scouring and erosion of the receiving systems. Boulders encountered during the construction phase of the project may be used for this. Should services or structures be required to traverse the wetland areas, these should span the wetland areas, avoiding the placement of piers or pylons within the wetland and buffer areas. 	Very High Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Aspect	CONSTRUCTION								
	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
Site Establishment	The establishment of the site camp has the potential to result in damage and disturbance of ecological sensitive areas e.g. wetlands and sensitive vegetation.	One month to one year	Local area	Significant	Highly Likely	Moderately sensitive	Medium High Negative	<ul style="list-style-type: none"> - Site camp location must be approved by the ECO before set up. It should take into account ecological sensitive areas described in Section 7. - Demarcate all "no go" areas prior to construction. - Dedicate and demarcate suitable on-site areas for material, equipment, waste storage, stockpile areas in accordance with site layout plan prior to commencing with construction activities 	Low Negative
Geotechnical	Erosion problems during excavations and trenching	One month to one year	Development Specific	Great	Highly Likely	Limited sensitivity	Medium Low Negative	<ul style="list-style-type: none"> - No accumulation of surface water must be permitted and the entire development must be properly drained. - Backfill trenches and excavations properly. - Compact 150 mm thick layers and compacted to 90% of modified AASHTO density. 	Low Negative
	Erosion problems caused by traffic and vehicle movement.	One month to one year	Development Specific	Great	Highly Likely	Limited sensitivity	Medium Low Negative	<ul style="list-style-type: none"> - Undertake a detailed pavement design for the roads and paved areas based on anticipated traffic and roads. - In situ is not suitable for use as subgrade materials and materials for roads pavement layer works will have to be imported. 	Low Negative
Social	Public Safety	One month to one year	Development specific	Great	Likely	Moderately sensitive	Low Negative	<ul style="list-style-type: none"> - Notify members of the public adjacent to the construction site of construction activities to limit disturbance. - Undertake construction activities during daylight hours. - Prohibit construction to be undertaken on Sundays. 	Very Low Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
	Increase in localised crime	One month to one year	Local area	Significant	Possible	Moderately sensitive	Low negative	<ul style="list-style-type: none"> - Implement access control to guard the site to control people entering and leaving the site. - Construct a boundary wall at the commencement of construction (if possible). - Alternatively, screen or fence off the entire site at the commencement of construction. 	Very Low negative
	Job creation could result in the influx of people to the area	One month to one year	Local area	Significant	Possible	Moderately sensitive	Low negative	<ul style="list-style-type: none"> - Recruit the labour force from the local communities wherever possible. - Prohibit informal settlements or contractor accommodation on site. 	Very Low negative
	Economic investment and employment provision	One month to one year	Local area	Significant	Highly Likely	Moderately sensitive	Low- Medium Positive	<ul style="list-style-type: none"> - Recruit the labour force from the local communities wherever possible. - Implement principles of BEE, gender equality, equality and non-discrimination during recruitment. - Apply labour intensive construction methods to maximize the potential number of employment opportunities. 	Medium Positive
	Education and skill development	One month to one year	Local area	Significant	Highly Likely	Moderately sensitive	Low- Medium Positive	<ul style="list-style-type: none"> - Training and education must be provided to labour force. 	Medium Positive
Air Quality	Particulates result in adverse health effects on respiratory system through the particulate air pollution resulting from PM10 (particulate matter with an aerodynamic diameter equal to or less than 10 µm)	Short term	Local	Low	Probable	Moderate	Low Negative	<ul style="list-style-type: none"> - Increase the application of mitigation measures in areas where construction activity is to occur in close proximity to nearby receptors (i.e. northern and western site boundary). <p>WIND SPEED REDUCTION</p> <ul style="list-style-type: none"> • Wind Barriers <ul style="list-style-type: none"> - Place wind barriers on site before commencement of works. - Place wind barriers perpendicular to the direction of the prevailing wind. 	Very Low Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
	and fine particles, PM2.5 (particulate matter with an aerodynamic diameter equal to or less than 2.5 µm).							<ul style="list-style-type: none"> - Choose solid barriers to provide significant reductions in wind velocity. - Screening material should have a porosity of 50% or less. - Use wind barriers that are at least 2 metres high. 	
	Dust fallout through wind, movement of vehicles, stack emissions and fugitive dust resulting in physical damage to property and physical irritation to plants, animals and humans. Short term	Short term	Local	Low	Probable	Moderate	Low Negative	WET SUPPRESSION <ul style="list-style-type: none"> • Watering <ul style="list-style-type: none"> • No water must be taken from a water resource. • Dampened the surface to prevent dust from becoming airborne. • Do not make surface too wet to produce run-off. • Use wetting agents for non-wetting soils. • Undertake watering prior to strong breezes. • Use watering sprays on materials to be loaded and during loading. • Use real time automated response systems to turn on water in response to dust levels or high wind speeds (if practical and feasible). • Make use of wetting agents such as chemical stabilisation or hydromulch (if water restrictions are applicable). 	Very Low Negative
	Dust fallout through debris handling resulting in physical damage to property and physical irritation to plants, animals and humans.	Short term	Local	Low	Probable	Moderate	Low Negative	<ul style="list-style-type: none"> - Increase the application of mitigation measures in areas where construction activity is to occur in close proximity to nearby receptors (i.e. northern and western site boundary). WIND SPEED REDUCTION <ul style="list-style-type: none"> • Wind Barriers <ul style="list-style-type: none"> - Place wind barriers on site before commencement of works. 	Very Low Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<ul style="list-style-type: none"> - Place wind barriers perpendicular to the direction of the prevailing wind. - Choose solid barriers to provide significant reductions in wind velocity. - Screening material should have a porosity of 50% or less. - Use wind barriers that are at least 2 metres high. <p>WET SUPPRESSION</p> <ul style="list-style-type: none"> • Watering <ul style="list-style-type: none"> • No water must be taken from a water resource. • Dampened the surface to prevent dust from becoming airborne. • Do not make surface too wet to produce run-off. • Use wetting agents for non-wetting soils. • Undertake watering prior to strong breezes. • Use watering sprays on materials to be loaded and during loading. • Use real time automated response systems to turn on water in response to dust levels or high wind speeds (if practical and feasible). • Make use of wetting agents such as chemical stabilisation or hydromulch (if water restrictions are applicable). 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
	Dust fallout through truck transport and cut/fill haulage resulting in physical damage to property and physical irritation to plants, animals and humans.	Short term	Local	Low	Probable	Moderate	Low Negative	<p>Increase the application of mitigation measures in areas where construction activity is to occur in close proximity to nearby receptors (i.e. northern and western site boundary).</p> <p>WET SUPPRESSION</p> <ul style="list-style-type: none"> Watering <ul style="list-style-type: none"> No water must be taken from a water resource. Dampened the surface to prevent dust from becoming airborne. Do not make surface too wet to produce run-off. Use wetting agents for non-wetting soils. Undertake watering prior to strong breezes. Use watering sprays on materials to be loaded and during loading. Use real time automated response systems to turn on water in response to dust levels or high wind speeds (if practical and feasible). Make use of wetting agents such as chemical stabilisation or hydromulch (if water restrictions are applicable). Chemical Stabilisation <ul style="list-style-type: none"> Physical barriers and other methods of preventing traffic access must be used to protect stabilised areas. Follow manufacturer instructions to optimise performance. 	Very Low Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
	Dust fallout through the use of bulldozers and pan scrapers resulting in physical damage to property and physical irritation to plants, animals and humans.	Short term	Local	Low	Probable	Moderate	Low Negative	WET SUPPRESSION <ul style="list-style-type: none"> • Watering <ul style="list-style-type: none"> • No water must be taken from a water resource. • Dampened the surface to prevent dust from becoming airborne. • Do not make surface too wet to produce run-off. • Use wetting agents for non-wetting soils. • Undertake watering prior to strong breezes. • Use watering sprays on materials to be loaded and during loading. • Use real time automated response systems to turn on water in response to dust levels or high wind speeds (if practical and feasible). • Make use of wetting agents such as chemical stabilisation or hydromulch (if water restrictions are applicable). 	Very Low Negative
	Dust fallout through cut/fill material handling and general construction, resulting in physical damage to property and physical irritation to plants, animals and humans.	Short term	Local	Low	Probable	Moderate	Low Negative	WIND SPEED REDUCTION <ul style="list-style-type: none"> • Wind Barriers <ul style="list-style-type: none"> - Place wind barriers on site before commencement of works. - Place wind barriers perpendicular to the direction of the prevailing wind. - Choose solid barriers to provide significant reductions in wind velocity. - Screening material should have a porosity of 50% or less. - Use wind barriers that are at least 2 metres high. 	Very Low Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								WET SUPPRESSION <ul style="list-style-type: none"> Watering <ul style="list-style-type: none"> No water must be taken from a water resource. Dampened the surface to prevent dust from becoming airborne. Do not make surface too wet to produce run-off. Use wetting agents for non-wetting soils. Undertake watering prior to strong breezes. Use watering sprays on materials to be loaded and during loading. Use real time automated response systems to turn on water in response to dust levels or high wind speeds (if practical and feasible). Make use of wetting agents such as chemical stabilisation or hydromulch (if water restrictions are applicable). Limit Cleared Areas <ul style="list-style-type: none"> Commence, plan and locate the vegetation cover that needs to be retained prior to site works. Protect this vegetation by fencing or blocking off from the rest of the site operations. Maintain the original vegetation cover for as long as possible. Avoid clearing the entire site at once, instead clear areas as required in stages of the operation. Retain the original trees, shrubs and grasses is one of the most efficient and 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<p>effective ways of minimising dust emissions</p> <ul style="list-style-type: none"> • Vegetative Stabilisation <ul style="list-style-type: none"> - Retain as much existing vegetation as possible. - If an area needs to be cleared, transplant established plants that must be disturbed to areas that need vegetation; - If existing vegetation must be removed and cannot be immediately transplanted elsewhere, remove and maintain them for replanting at project completion. If trees and plants must be removed and it is not possible for them to be replanted, consider chipping and using the material as mulch – the advantage is that reseeding of original vegetation can occur. Where possible, restore vegetation that is native to the area to maximise plant success and improve environmental conditions. • Timing of Development <ul style="list-style-type: none"> - Topsoil stripping should not be carried out in sensitive areas during adverse wind conditions. - Topsoil must be stripped in discrete sections, allowing buffer strips (windbreaks) between clearings. • Earth Moving Management <ul style="list-style-type: none"> - Plan earth-moving works so that they are completed just prior to the time they are needed. - Observe weather conditions and do not commence or continue earth moving works if conditions are unsuitable e.g., under conditions of strong winds. - Reduce off-site hauling via balanced cut and fill operations. - Pre-water areas to be disturbed. 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<ul style="list-style-type: none"> • Stockpiles <ul style="list-style-type: none"> - Locate stockpiles in sheltered areas. Otherwise, stockpiles should be covered. - Limit the height and slope of the stockpiles to reduce wind pick up, orient stockpiles lengthwise into the wind so they offer the minimum cross-sectional area to prevailing winds, install wind barriers on three sides of the stockpile. - Limit activity to the downwind side of the stockpile. - Limit drop heights from loading facilities and use closed conveyors where possible. - Minimise transfer points. • Maintenance <ul style="list-style-type: none"> - Appoint a person with the responsibility for dust management. - Make all staff aware of the potential for dust generation and provide induction on dust minimising practice. - Inspect dust control equipment regularly and repair defects promptly. - Keep spares on site for critical items of control equipment, such as water pumps for dust suppression sprays. - Trucks carrying contaminated soil from the site for disposal off-site should be washed down prior to leaving the site to prevent spreading contamination off-site. 	
Vegetation	Loss destruction and/or eradication of plant species of conservation concern/ importance.	Permanent	Local area	Significant	Highly likely	Ecology moderately sensitive/ important	High negative	<ul style="list-style-type: none"> • Avoid areas of high sensitivity • Clearly demarcate all plant species of conservation concern prior to construction, • Avoid protected plant species carefully during construction activities. • Apply for the necessary exemption or authorisation for relocation of the plants to 	Low negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Aspect	CONSTRUCTION								Significance impact after mitigation
	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	
								alternative location (if impacts on plant species of conservation concern cannot be avoided.	
	Further degradation and loss of an EN vegetation community	Permanent	Entire habitat unit	Great	Highly likely	Ecology highly sensitive	Very High negative	<ul style="list-style-type: none"> Re-vegetate areas denuded during construction with indigenous vegetation to prevent erosion during flood events and to reduce encroachment by alien invasive plant species. Compile and implement an alien vegetation management plan for the entire site. 	High negative
Fauna	Loss and/or displacement of faunal species of conservation concern	Permanent	Local area	Small	Possible	Ecology limited sensitivity	Low negative	<ul style="list-style-type: none"> Temporarily cease construction activities if faunal species of conservation importance are recorded during the construction phase. Consult with the appropriate specialist to identify the correct course of action. 	Very Low negative
	Loss of diversity of indigenous faunal communities	Permanent	Local area	Small	Possible	Ecology limited sensitivity	Low negative	<ul style="list-style-type: none"> Educate staff about the sensitivity of faunal species and measures to be put in place to deal with any species encountered during the construction. Strictly prohibit the intentional killing of any animals including snakes, lizards, birds or other animals. 	Very Low negative
Water Resources	Altered surface water flows	Medium term	Local area	Small	Highly probable	Ecology limited sensitivity	Low negative	<ul style="list-style-type: none"> Clearly mark buffer zone to avoid encroachment within the buffer area. Laydown yards, camps and storage areas must be beyond the wetland and buffer areas. Limit the construction of new access routes and make use of existing access routes (if possible). Protection and avoidance of wetland areas must be included into a site induction. Make contractors and employees aware during induction of wetland areas to be avoided. Prevent uncontrolled access of vehicles through wetlands that can cause a significant adverse impact on the hydrology and soil structure of 	Very Low negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								these areas through rutting (which can act as flow conduits) and through the compaction of soils.	
	The removal of vegetation will result in areas being exposed and susceptible to erosion.	Medium term	Local area	Small	Probable	Ecology with limited sensitivity	Low negative	<ul style="list-style-type: none"> Clear vegetation in a phased approach, minimising the extent of exposed areas. Clear sparsely vegetated areas first, and densely vegetated areas last. Use only indigenous vegetation for re-vegetation purposes. Clear vegetation on the upper slopes of the catchment first, before progressing downslope towards the valley bottom wetland. Undertake construction during the dry season (if possible) to reduce the erosion potential of the exposed surfaces. 	Very Low negative
	Construction activities and vehicles could cause spillages of lubricants, fuels and construction material which could then be transported to the wetland areas, impacting on the water quality and potentially the functioning of the systems.	Medium term	Local area	Small	Probable	Ecology with limited sensitivity	Low negative	<ul style="list-style-type: none"> All vehicles and equipment must be maintained, and all re-fuelling and servicing of equipment is to take place in demarcated areas outside of the wetland / riparian and buffer areas. Formulate a suitable stormwater management plan for the project to ensure that clean and dirty water are separated, that only clean water is diverted into the wetland system and that the discharge of water will not result in scouring and erosion of the receiving systems. Treat dirty water within acceptable DWS drinking water standards (or aquatic ecosystem standards) before being discharged into the wetlands. (This is not a mitigation measure for the discharge of treated waste water). Spill kits must be available to ensure that any fuel or oil spills are clean-up and discarded correctly. Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel. Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel. 	Very Low negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<ul style="list-style-type: none"> No equipment may be washed within the watercourse, nor may dumping of construction material into the systems take place. As much material is pre-fabricated and then transported to site to avoid the risks of contamination associated with mixing, pouring and the storage of chemicals and compounds. 	
Heritage and Cultural Resources	The removal of vegetation for site preparation and construction machinery utilised to construct the required infrastructure, could damage resources that are generally protected in terms of Sections 27, 28, 31, 32, 34, 35, 36 and 37 of the NHRA that may occur in the proposed project area.	Permanent	Local area	Small	Highly Unlikely	Limited sensitivity	Very Low negative	<ul style="list-style-type: none"> Inform all persons responsible for site management of the following heritage indicators: <ul style="list-style-type: none"> Ash deposits (unnaturally grey appearance of soil compacted to the surrounding substrate). Bone concentrations, either animal or human. Ceramic fragments, including potsherds. Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial, or represent building/ structural remains). Fossilised remains of fauna and flora, including trees. 	Very Low negative
								<ul style="list-style-type: none"> The following actions must be taken immediately upon an encounter. <ul style="list-style-type: none"> Cease all operations within a radius of at least 20 m of the indicator. Mark area clearly visible, using means, such as barrier tape. Inform all personnel that it is a no-go area. Appoint a guard to enforce this no-go area if there is any possibility that it could be violated whether intentionally or inadvertently by construction staff or members of the public. 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	CONSTRUCTION								
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<ul style="list-style-type: none"> - Do not cover up the suspected heritage resource with soil, or collect any remains such as bone or stone. - Contact heritage practitioner so that an investigation and evaluation of the finds can be made. - Respect the potentially sensitive and confidential nature of the heritage resource, particular human remains and refrain from making public statements until a mutually agreed time. 	
Palaeontological Resources	The construction machinery utilised to construct the required infrastructure, could damage palaeontological resources (shales with leaf impressions of the <i>Glossopteris</i> flora) that may occur in the top few meters below ground.	Short term	Local	Low	Low	Low	Low negative	<ul style="list-style-type: none"> - The following actions must be taken if any fossils are seen on the surface and when excavations commence. - Undertake a cursory inspection of the rocks when excavations begin. - Fossiliferous material (plants, insects, bone, and coal) should be put aside in a suitably protected place. - Provide photographs of similar fossil plants to the developer to assist in recognising the fossil plants in the shales and mudstones. - Train all staff on the indicators and actions to be taken upon an encounter. - Sent photographs of putative fossils to a palaeontologist for a preliminary assessment. - The palaeontologist should visit the site monthly to inspect the selected material and check the dumps where feasible. 	Very low negative
								<ul style="list-style-type: none"> - Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the paleontologist must be removed, catalogued and housed 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

CONSTRUCTION									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								<p>in a suitable institution where they can be made available for further study.</p> <ul style="list-style-type: none"> - Obtain a SAHRA permit before any fossils are removed. - Submit annual reports to SAHRA and as required by the relevant permits. - If no good fossil material is recovered then the site inspections by the paleontologist can be reduced to annual events until construction has ceased. Annual reports by the paleontologist must be sent to SAHRA. - If no fossils are found and the excavations have finished then no further monitoring is required. 	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Aspect	OPERATIONAL								Significance impact after mitigation
	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	
Traffic	Reduced traffic flow and congestion caused by the proposed development.	Life of operation	Regional	Significant	Highly Likely	Moderate	Medium-High Negative	<ul style="list-style-type: none"> - Install traffic signal control at Intersection of North boundary Road and Dinare Drive with the phasing as illustrated in Figure 6-1 of the Traffic Impact Assessment: Appendix G. - Change the intersection layout by providing a slipway for all left turn movements and adding two additional lanes on North Boundary East and Keurboom road Intersection - Install traffic signal control at the Intersection of Barry Marais Road and Keurboom Road with the phasing as illustrated in Figure 6-3 of the Traffic Impact Assessment: Appendix G. - Upgrade the recommended intersections to operate at its full capacity during peak hours within the year 2022. 	Medium- Low Negative
Flora	Increased degradation of EN vegetation community associated with increased human density.	Permanent	Local area	Significant	Likely	Highly sensitive	High	<ul style="list-style-type: none"> - Fence off and control access to all sensitive habitats to prevent access, dumping of rubble, harvesting plants of conservation concern. 	Moderate
Fauna	Increased pressure on indigenous faunal communities including species of conservation concern due to increased human density and encroachment	Permanent	Local area	Significany	Likely	Highly sensitive	High	<ul style="list-style-type: none"> - Restrict and control inhabitant access to sensitive areas to prevent disturbance of species of concern. - Erect sign boards at all potential access points to highlight the presence of sensitive species of concern. 	Moderate
Water Resources	Loss of wetlands (including services)	Permanent	Local	Great	Certain	High	Very High Negative	<ul style="list-style-type: none"> - Remove alien vegetation within the wetland through the operation of the project. 	Very High Negative

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

OPERATIONAL									
Aspect	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating	Proposed Mitigation	Significance impact after mitigation
								- Conduct inspections quarterly and remove aliens when required. Inspections should be conducted by an independent vegetation specialist.	
	Transverse wetlands (crossings)	Project life	Local	Significant	Probable	Moderate	Low Negative	- Monitor and manage access to the wetland area. - Prohibit uncontrolled access.	Very Low Negative
	Altered surface water flows	Project life	Local	Significant	Probable	Moderate	Low Negative	- Maintain and clear all culverts and stormwater discharge areas of debris. - Should scouring be identified, measures must be taken immediately to address this. This may include the placement of reno mattresses or gabion baskets.	Very Low Negative
	Altered water quality (pollution)	Project life	Local	Significant	Probable	Moderate	Low Negative	- Prohibit the servicing of equipment and vehicles. - Secure all refuse bins. - Covered waste skips must be used for the temporary storage of domestic waste. - Maximum domestic waste storage period will be 7 days.	Very Low Negative
Air Quality	<p>The proposed development is surrounded by mining activity (quarries, tailings, etc.), industrial activity (e.g. Boksburg East Industrial Sites and Wadeville) and informal settlements (north of site).</p> <p>The Air pollution generated by these activities are required to be controlled at the emission source by standard practice, however, general measures that can be implemented at the site of exposure.</p>						<ul style="list-style-type: none"> - Install automated entrance and exit doors to ensure doors remain closed at all times to reduce airborne dust entering building. - Install climate control with a filtration ventilation system would ensure that windows do not need to be left open, while ensuring air circulation to reduce the amount of dust from entering the building as well as dilution of potential radon gas and dust particles. - Implement exterior wind breaks. This would be in form of hedges and/or trees to act as a dust trap as well as a wind break to minimize dust onto the site. - Indigenous trees recommended include: <ul style="list-style-type: none"> • Wild Plum (<i>Harpephyllum caffrum</i>) • Karee Tree (<i>Searsia lancea</i>) • White Pair (<i>Apodytes dimidiata</i>) – can be grown as a hedge • Wild Olive (<i>Olea europaea subsp. Africana</i>) 		

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Aspect	OPERATIONAL							Proposed Mitigation	Significance impact after mitigation
	Potential Impact	Duration	Spatial Extent	Severity of Impact	Probability of Impact	Sensitivity of receiving environment	Significance Rating		
								<ul style="list-style-type: none"> False Olive (<i>Buddleja saligna</i>) – can be grown as a hedge White Stinkwood (<i>Celtis Africana</i>) River Bushwillow (<i>Combretum erythrophyllum</i>) <ul style="list-style-type: none"> - Install posters at main entrances of buildings to raise awareness regarding air pollution and the potential health impacts associated with exposure to dust and air pollutants. - Include the following details on the poster: <ul style="list-style-type: none"> • What air pollution is? • Potential health symptoms (excessive coughing, wheezing, shortness of breath, etc.) • Where people can obtain medical assistance if needed. • When to keep doors and windows closed to reduced outdoor air infiltration. - Display signs to indicate that doors must be kept closed during peak concentration times (i.e. early morning (5:00 – 8:00) and evening (17:00 – 20:00)) - Dusty days (e.g. when there are high dust emissions around tailings. - On windy days which can increase dust emissions. - The use of extraction fans (non-energy intensive) to promote ventilation must be investigated. - Keep vents clean to prevent blockage of air flow. 	

The following specialist reports were used to fill in the above tables. Such reports are attached in **Appendix G**.

- Water Resources Assessment Report
- Biodiversity Assessment Report
- Phase 1 Cultural Heritage Impact Assessment
- Paleontological Impact Assessment Report
- Air Quality Assessment Report
- Geotechnical Report
- Traffic Impact Assessment

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.

It is not envisaged that the proposed development will be decommissioned in the foreseeable future. Should decommissioning take place, the legislation applicable at that time should be complied with, and relevant environmental practices implemented.

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:

WATER RESOURCES

Due to the overall development of the area which includes mining, housing developments, industrial sites and access routes, wetland areas have been lost. The loss of wetland is irreplaceable and not easily offset. Areas which may not have resulted in the direct loss of wetlands due to the abovementioned aspects, indirect impacts to these systems have to be considered. Developments have encroached into the wetland systems, causing these systems to be narrowed. The traversing of these systems has affected the hydrology and flow regimes of this area. The surround disturbances have also introduced alien vegetation into the wetland area. When taking into consideration the location of the project area, the status and functioning of the wetland and proposed development, the cumulative impact to the wetland is expected to be moderate.

TRAFFIC

Traffic in the Boksburg area will increase by the proposed development. The recommendations stipulated in the Traffic Impact Assessment for the road network must be implemented for existing and future proposed roads to reduce the significance of the impact from medium – high to a low-medium impact.

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

SITE ESTABLISHMENT

The potential direct impacts of site camp establishment, as a result of the proposed development, have been identified as damage to ecological sensitive systems e.g. wetlands and sensitive vegetation. These impacts have been rated as negative medium-high. Provided that all the suggested mitigations are implemented, the proposed development impact should be negative low to medium on the ecologically sensitive areas e.g. wetlands and sensitive vegetation.

GEOTECHNICAL

The potential direct impacts of geotechnical as result of the proposed development, have been identified as erosion problems during excavations and trenching during the construction phase and erosion problems caused by traffic and vehicle movement during the operational phase. These impacts have been rated as negative low – medium. Provided that all the suggested mitigations are implemented, the proposed development impact should be negative low on geotechnical aspects.

SOCIAL

The potential direct social impacts as a result of the proposed development, have been identified as public safety, increase in localised crime, job creation could result in the influx of people to the area, economic investment and employment provision, education and skill development. These impacts have been rated as positive and negative low. Provided that all the suggested mitigations are implemented, the proposed development impact should be a positive medium to a negative very low impact on social aspects.

AIR QUALITY

The potential direct impacts on air quality as result of the proposed development, have been identified as particulates resulting in adverse health effects on respiratory system, dust fallout, stack emissions and fugitive dust. These impacts have been rated by the specialist as negative low. Provided that all the suggested mitigations are implemented, the proposed development impact should be negative very low on air quality.

VEGETATION

The potential direct impacts on the vegetation as a result of the proposed development, have been identified as loss destruction and/or eradication of plant species of conservation concern/ importance and further degradation and loss of an endangered vegetation community. These impacts have been rated as negative high – very high. Provided that all the suggested mitigations are implemented, the proposed development impact should be negative low - high on vegetation.

WATER RESOURCES

The potential direct impacts on water resources as a result of the proposed development, have been identified as loss of wetlands, transverse wetlands, altered surface water flows, sedimentation and erosion. The impacts have been rated as negative very high- low and provided that the suggested mitigation measures are implemented, the proposed development impact should have a negative very high to a low impact on water courses.

FAUNA

The potential direct impacts on fauna as a result of the proposed development, have been identified as loss/ or displacement of faunal species of conservation concern and loss of diversity of indigenous faunal communities. These impacts have been rated as negative low. Provided that all the suggested mitigations are implemented, the proposed development impact should have a negative very low impact on fauna.

CULTURAL HERITAGE RESOURCES

No potential direct impact on cultural heritage resources has been identified as a result of the proposed development. The impact has been rated as negative very low by the specialist and provided that the suggested mitigation measures are implemented the proposed development impact should have a negative very low impact on cultural heritage resources.

PALEONTOLOGICAL RESOURCES

No potential direct impacts on palaeontological resources have been identified Provided that the suggested mitigation measures are implemented, the proposed development impact should remain negative very low on palaeontological resources.

OPERATIONAL

TRAFFIC

The potential direct impacts on traffic as a result of the operational phase of the proposed development, have been identified as negative medium - high and provided that the suggested mitigation measures are implemented, the impact should have a negative low to medium impact on traffic during the operational phase.

WATER RESOURCES

The potential direct impacts on water resources as a result of the operational phase of the proposed development, have been identified as loss of wetlands, transverse wetlands, altered surface water flows altered water quality and sedimentation/ erosion caused by the proposed development. The impacts have been rated as negative very high- low and provided that the suggested mitigation measures are implemented, the impact should have a negative very high to a low impact on water courses during the operational phase.

FLORA

The potential direct impact on flora as a result of the operational phase of the proposed development, has been identified as increased degradation of species of conservation concern and vegetation communities with increased human densities. The impacts have been rated as negative high and provided that the suggested mitigation measures are implemented, the proposed development impact should have a negative moderate impact on flora.

FAUNA

The potential direct impact on fauna as a result of the operational phase of the proposed development, has been identified as increased pressure on indigenous faunal communities including species of conservation concern due to increased human density and encroachment. The impacts have been rated as negative high and provided that the suggested mitigation measures are implemented, the proposed development impact should have a negative moderate impact on fauna.

Alternative 1

Alternative 2

No-go (compulsory)

From a social perspective, this is not a sustainable option as the proposed site is situated within an urban residential area surrounded by existing residential suburbs. According to the zoning certificate, the site is zoned for agricultural purposes but is not currently managed or maintained accordingly. By not developing the site, there will be limited socio-economic benefits and the strategies of the municipality (i.e. job creation, provision of housing and infrastructure, reduction of poverty and skills development) will not materialise. The presence of development throughout the greater area increases the possible that undeveloped land may be unlawfully settled, as a result of the severe pressure for housing in the municipality.

The proposed development planning and design phase has been informed by the findings and recommendations of the Wetland Resource Assessment and the Biodiversity Assessment, aiming to limit the impact on sensitive features on the proposed site. Not proceeding with development may result in further alien invasive vegetation species encroachment, threatening the survival of native and indigenous floral species. The incidence of illegal dumping of rubble and waste is also likely to worsen in future, due to the lack of access control to the site.

6 IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The impact significance pre- mitigation is identified as high, and negligible post-mitigation following the implementation of mitigation measures.

For alternative:

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

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

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:

The important aspects that need to be considered are:

- The final design and planning stage of the proposed development must consider the footprint area of the conceptual layout, considering intrusion on wetland areas.
- The final design should incorporate the Gauteng Sustainable Development Guideline (2nd Revision of 2010) for the proposed implementation approach for buildings (commercial and residential).
- The final design and planning stage should undertake to incorporate EMM Stormwater By Laws – to improve the management of stormwater associated with the new development and to ensure on-site attenuation, slow release and environmental protection is ensured. This particularly relates to solutions to manage the stormwater outlets, from the neighbouring development, that discharges onto the site which then discharges to the wetland, on the south western part of the site (as depicted in the figure below).



Figure 7-1: Two stormwater outlets from the neighbouring development

- Energy dissipaters must be incorporated into the design for discharge locations to prevent scouring and erosion of the receiving systems.

- Should services or structures be required to traverse the wetland areas, these should span the wetland area, avoiding/limiting the placement of piers or pylons within the wetland and buffer areas.
- Construct a boundary fence, wall or screen for the entire site at the commencement of construction to prevent access, dumping of rubble and harvesting plants of conservation concern.
- Clearly demarcate all plant species of conservation concern prior to construction.
- Apply for the necessary exemption or authorisation for relocation of the plants to alternative location (if impacts on plant species of conservation concern cannot be avoided) or consult with the appropriate specialist to identify the correct course of action.
- Compile and implement an alien vegetation management plan for the entire site, prior to construction.
- Educate staff about the sensitivity of faunal species and measures to be put in place to deal with any species encountered during the construction.
- Change the intersection layout by providing a slipway for all left turn movements and adding two addition lanes on North Boundary East and Keurboom road Intersection
- Indigenous trees recommended include:
 - Wild Plum (*Harpephyllum caffrum*)
 - Karee Tree (*Searsia lancea*)
 - White Pair (*Apodytes dimidiata*) – can be grown as a hedge
 - Wild Olive (*Olea europaea subsp. Africana*)
 - False Olive (*Buddleja saligna*) – can be grown as a hedge
 - White Stinkwood (*Celtis Africana*)
 - River Bushwillow (*Combretum erythrophyllum*)
- Install posters at main entrances of buildings to raise awareness regarding air pollution and the potential health impacts associated with exposure to dust and air pollutants.
- The use of extraction fans (non-energy intensive) to promote ventilation within buildings should be considered.

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

Appendix H

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 appendixes:

- 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.

APPENDIX A: SITE PLAN

APPENDIX B: PHOTOGRAPHS

Coordinates: 26°16'25.49"S; 28°17'28.67"E	
NORTH	NORTH EAST
	
EAST	SOUTH EAST
	
SOUTH	SOUTH WEST
	
WEST	NORTH WEST
	

SITE NOTICE 1

26°16'8.52"S; 28°17'25.69"E



SITE NOTICE 3

26°15'36.63"S; 28°17'41.20"E



SITE NOTICE 2

26°16'16.13"S; 28°17'19.07"E



SITE NOTICE 4

26°15'37.61"S; 28°17'44.58"E



APPENDIX C: FACILITY ILLUSTRATION(S)

APPENDIX D: ROUTE POSITION INFORMATION

NOT APPLICABLE

APPENDIX E: PUBLIC PARTICIPATION

The information in this Appendix is ordered as detailed below.

Appendix E1 – Proof of Site Notice

Appendix E2 – Written Notices to persons detailed in 1 (B) to 1 (F)

Appendix E3 – Newspaper advertisements

Appendix E4 – Communications to and from persons detailed in point 2 and 3 above

Appendix E5 – Minutes of any public and/ or stakeholder meetings

Appendix E6 - Comments from I& APs on basic assessment (BA) report

Appendix E7 – Comments and response report

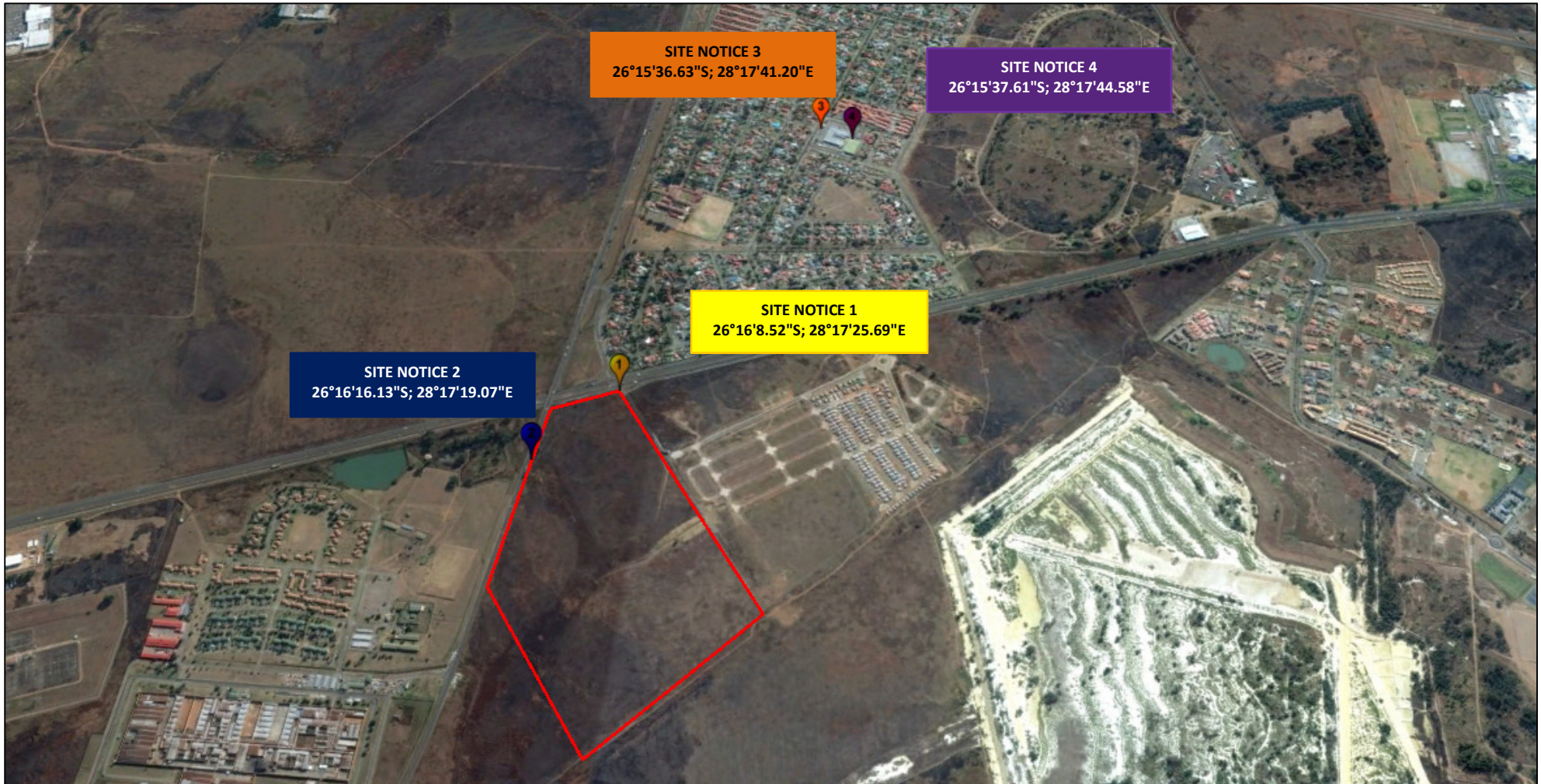
Appendix E8 – Comments from I&APs on amendments to the BA report

Appendix E9 – Copy of the register of I&APs

Appendix E10 – Comments from I&AP s on the application

Appendix E11 – Other.

APPENDIX E1 – PROOF OF SITE NOTICE



APPENDIX E2 – WRITTEN NOTICES TO PERSONS DETAILED IN 1(B) TO 1(F)

The written notices of the application to persons detailed in 1 (b) to 1 (b) will be presented under the below headings.

1. APPLICATION

- Background Information Document
- Landowner Notices and Adjacent Landowner Notices
- Ward Councillor
- Local Municipality Notices
- Organs of the State Notices.

BACKGROUND INFORMATION DOCUMENT

LANDOWNER NOTICES AND ADJACENT LANDOWNER NOTICES

WARD COUNCILLOR

LOCAL MUNICIPALITY NOTICES

ORGANS OF THE STATE

APPENDIX E3 – NEWSPAPER ADVERTISEMENTS

**APPENDIX E4 – COMMUNICATIONS TO AND FROM PERSONS DETAILED
IN POINT 2 AND 3 ABOVE**

**APPENDIX E5 – MINUTES OF ANY PUBLIC AND/ OR STAKEHOLDER
MEETINGS**

**APPENDIX E6 – COMMENTS FROM I & APS ON BASIC ASSESSMENT (BA)
REPORT**

This is the Draft Basic Assessment Report, and therefore not applicable.

APPENDIX E7 – COMMENTS AND RESPONSES REPORT

Name / Surname		Alderman Jackie Reilly (Ward Councillor)
Comments	Received	16.03.2017 Please could the exact nature of the development be provided?
	Response	16.03.2017 We herewith confirm receipt of your correspondence dated 16 March 2017 forwarded to us by electronic mail. Kindly note that the compilation of the Basic Assessment Report (BAR) is still in progress and will include further information of the proposed project. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.
Name / Surname		Tshego Manale (Office of the Director General: Department of Rural Development and Land Reform)
Comments	Received	17.03.2017 Your email dated 16 March 2017, regarding the above subject matter is hereby acknowledged with thanks. May I please request that you contact the office of the Deputy Director General: Spatial Planning and Land Use Management(SPLUM please contact Tel: 012 312 9602/9851 Malebo.baloi or Pule Saila e-mail: Malebo.baloi@drdlr.gov.za or Ramaleho.saila@drdle.gov.za
	Response	27.03.2017 We herewith confirm receipt of your correspondence dated 17 March 2017 forwarded to us by electronic mail. The office of the Deputy Director General: SPLUM will be informed of the proposed project as requested. Your participation is highly appreciated.
Name / Surname		George Congo (Gauteng Department of Roads and Transport)
Comments	Received	23.03.2017 You are kindly informed that this department will not be able to participate in the above mentioned Environmental Impact Assessment Process. However, note must be taken that the Gauteng Strategic Transportation Network namely provincial roads (PWV15, (K155) and K132 (P58-1) are affected and as such in terms of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001), when an application for a township establishment, change of land use (rezoning, subdivision consent use etc) is lodged with the relevant authority, the said application must be lodged with this Department for evaluation. Note: must be also taken that an application must be submitted to this Department for a way leave for any part of the proposed service falls within 95 m (measured from the centreline of any of the Departments existing or future road(s)/ railway line. Where mining operations are to be undertaken, Section 49 of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001) shall apply. These conditions are laid down in terms of delegated authority in terms of the provisions of the Gauteng Transport Infrastructure Act, Act No 8 of 2001 and do not exempt the applicant/ owner/ successor-in-title from the provisions of any other law.
	Response	27.03.2017 We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by electronic mail. The comments have been noted and will be considered during the preparation of the Basic Assessment Report (BAR). We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province and will keep you informed of the proceedings. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.
Name / Surname		Dionysios Arvanitakis (Landowner of property)
Comments	Received	23.03.2017 Owner of property. The form refers to an individual. The property is a close corporation is it the right form?
	Response	27.03.2017 We herewith confirm receipt of your correspondence dated 23 March 2017 forwarded to us by facsimile. We confirm having registered you as an Interested and Affected Party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR, Ekurhuleni Metropolitan Municipality, Gauteng Province. All registered parties will be informed once the BAR is available for review and comment. Your participation is highly appreciated.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Name / Surname		Chris Marshall (I&AP)
Comments	Received	28.03.2017 Need information urgently regarding the layout of the proposed housing development as well as the road networks.
	Response	28.03.2017 As telephonically discussed, we herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR. All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.
Name / Surname		Dave Cheesman Peter van der Meer (Purple Moss)
Comments	Received	07.04.2017 Receive herewith attached our application as I & AP stakeholders. Kindly keep us informed of related matters. Portion 44 pf Farm Finaalspan 114 IR is located on the northern boundary of our property. Our interest is in what is planned for the development and common connection linkages between the properties.
	Response	12.04.2017 We herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR. All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.
Name / Surname		Nicholas John Boek (Carnival City Development)
Comments	Received	20.04.2017 As adjoining property owners we need to be informed of the proposed development and how the discharge of stormwater from our property will be handled on the proposed development. I do not have any objections regarding the proposed development and I therefore wish to express my consent or no-objection for the proposed project.
	Response	20.04.2017 We herewith confirm your registration as interested and affected party in respect of the Proposed Township Establishment on Remainder of Portion 44 of the Farm Finaalspan 114 IR. All registered parties will be informed once the draft BAR is available for review and comment. A proposed layout of the housing development will be included in the BAR. Your participation is highly appreciated.

APPENDIX E8 – COMMENTS FROM I & APS ON AMENDMENTS TO THE BA REPORT

This is the Draft Basic Assessment Report, and therefore not applicable.

APPENDIX E9– COPY OF THE REGISTER OF I&APS

ORGAN OF STATE

Organ of State	Gauteng Department of Agriculture and Rural Development
Name / Surname	Boniswa Belot
Title	Deputy Director: Strategic Administration Support
Postal Address	PO Box 8769, Johannesburg, 2000
Email	Boniswa.Belot@gauteng.gov.za
Organ of State	Gauteng Department of Agriculture and Rural Development
Name / Surname	Miranda Mhlongo
Title	SUE Administration Support
Postal Address	PO Box 8769, Johannesburg, 2000
Email	Miranda.Mhlongo@gauteng.gov.za
Organ of State	Department of Water and Sanitation
Name / Surname	Nondumiso Mabe
Title	Acting Director: Regulation
Postal Address	PO Box 8769, Johannesburg, 2001
Email	MabeN@dws.gov.za
Organ of State	Department of Environmental Affairs Legal, Authorisation, Compliance and Enforcement
Name / Surname	Moegamat Ishaam Abader
Title	Deputy Director-General of Environmental Affairs
Postal Address	PO Box 8769, Johannesburg, 2001
Email	iabader@environment.gov.za
Organ of State	Department of Environmental Affairs Environmental Advisory Services
Name / Surname	Alfred James Wills
Title	Environmental Advisory Services
Postal Address	PO Box 8769, Johannesburg, 2003
Email	awills@environment.gov.za
Organ of State	Gauteng Roads and Transport
Name / Surname	Nellie Buitendag
Title	Deputy Director: Land Acquisition and Design Support
Postal Address	Prichard Street, Johannesburg, 2001
Email	nellie.buitendag@gauteng.gov.za
Organ of State	South African Heritage Resources Agency
Name / Surname	Heritage Officer: Archaeology
Title	Andrew Salomon
Postal Address	PO Box 8769, Johannesburg, 2005

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Email	Asalomon@sahra.org.za
Organ of State	Department of Public Works
Name / Surname	Mbuyi Dondashe
Title	Deputy Director Acting
Postal Address	Private Bag X65, Pretoria, 0001
Email	Mbuyi.Dondashe@dpw.gov.za
Organ of State	Department of Rural Development and Land Reform
Name / Surname	Mcebisi Skwatsha
Title	Deputy Minister (Land Reform)
Postal Address	Private Bag X833, Pretoria, 0001
Email	Marguerite.Liebenberg@drdlr.gov.za
Organ of State	Department of Rural Development and Land Reform
Name / Surname	Candith Mashego Dlamini
Title	Deputy Minister (Rural Development)
Postal Address	Private Bag X833, Pretoria, 0001
Email	Karin.Sebastian@drdlr.gov.za
Organ of State	Department of Rural Development and Land Reform
Name / Surname	Carlize Knoesen
Title	Deputy Minister (Rural Development)
Postal Address	Private Bag X833, Pretoria, 0001
Email	carlize.knoesen@drdlr.gov.za
Organ of State	Department of Rural Development and Land Reform
Name / Surname	Colin Cloete
Title	Manager: Gauteng
Postal Address	Private Bag X833, Pretoria, 0001
Email	Colin.Cloete@drdlr.gov.za
Organ of State	Department of Rural Development and Land Reform
Name / Surname	Leona Archary
Title	Acting Director-General
Postal Address	Private Bag X833, Pretoria, 0001
Email	DGOffice@drdlr.gov.za
Organ of State	Gauteng Province: Roads and Transport Republic of South Africa
Name / Surname	George Congo
Email	Congo.George@gauteng.gov.za
Organ of State	Department of Rural Development and Land Reform

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Title	DRDLR: Office of Director General
Name / Surname	Tshego Manale
Email	dg@drdlr.gov.za
Organ of State	SPLUM Office
Title	SPLUM Office
Name / Surname	Malebo Baloi
Email	Malebo.baloi@drdlr.gov.za
Organ of State	SPLUM Office
Title	SPLUM Office
Name / Surname	Ramaleho Saila
Email	Ramaleho.saila@drdlr.gov.za
WARD COUNCILLOR	
Ward	31
Name / Surname	Jacqueline Reilly
Title	Councillor
Cellphone	082 786 8386
Email	jackie16@vodamail.co.za
LOCAL MUNICIPAITY	
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Hezekiel Nkosi
Title	HOD: Environmental Resource Management and Development
Physical Address	Private Bag X1069, Germiston, 1400
Postal Address	47 Van Buuren Road, Germiston
Email	Hezekiel.nkosi@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Lilian Kwakwa
Title	Environmental Resource Management Department: Legislative Compliance Division
Physical Address	Private Bag X1069, Germiston, 1400
Postal Address	47 Van Buuren Road, Germiston
Email	Lillian.Kwakwa@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Imogen Mashazi
Title	City Manager
Physical Address	Private Bag X1069, Germiston, 1400
Postal Address	47 Van Buuren Road, Germiston
Email	city.manager@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Name / Surname	Mzwandile Masina
Title	Executive Mayor
Physical Address	P.O. Box 145, Germiston, 1400
Postal Address	Ekurhuleni Head Office, cnr Roses and Cross Streets, Germiston
Email	mayoral.office@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Mark Wilson
Title	HOD: Energy
Physical Address	P.O. Box 145, Germiston, 1400
Postal Address	Ekurhuleni Head Office, cnr Roses and Cross Streets, Germiston
Email	markw@ekurhuleni.com
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Motubatse Motubatse
Title	HOD: City Planning and Development
Physical Address	P.O. Box 145, Germiston, 1400
Postal Address	Ekurhuleni Head Office, cnr Roses and Cross Streets, Germiston
Email	motubatsem@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Sizwe Cele
Title	HOD: Roads and Storm Water
Physical Address	P.O. Box 145, Germiston, 1400
Postal Address	Ekurhuleni Head Office, Cnr Roses and Cross Streets, Germiston
Email	sizwec@ekurhuleni.gov.za
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Bongani Molefe
Title	HOD: Human Settlements
Physical Address	P.O. Box 145, Germiston, 1400
Postal Address	Ekurhuleni Head Office, Cnr Roses and Cross Streets, Germiston
Email	P.O. Box 145, GERMISTON, 1400
Municipality	Ekurhuleni Metropolitan Municipality
Name / Surname	Charlotta Mokheti
Title	Project Manager - Department Human Settlements
Physical Address	Department of Human Settlements, PO Box 25623, Benoni, 1610
Postal Address	Ekurhuleni Head Office, Cnr Roses and Cross Streets, Germiston
Email	charlotta.mokheti@ekurhuleni.gov.za
SERVITUDE OWNERS	
Servitude Owner	Rand Water Board

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Name / Surname	Nkosi Mohlahla
Title	Environmental Unit
Email	nmohlahl@randwater.co.za

APPENDIX E10 – COMMENTS FROM I&APS ON THE APPLICATION**Alderman Jackie Reilly (Ward Councilor)**16.03.2017

Please could the exact nature of the development be provided?

Tshego Manale (Office of the Director General: Department of Rural Development and Land Reform)17.03.2017

Your email dated 16 March 2017, regarding the above subject matter is hereby acknowledged with thanks. May I please request that you contact the office of the Deputy Director General: Spatial Planning and Land Use Management(SPLUM please contact Tel: 012 312 9602/9851 Malebo.baloi or Pule Saila e-mail: Malebo.baloi@drdlr.gov.za or Ramaleho.saila@drdle.gov.za

George Congo (Gauteng Department of Roads and Transport)23.03.2017

You are kindly informed that this department will not be able to participate in the above mentioned Environmental Impact Assessment Process. However, note must be taken that the Gauteng Strategic Transportation Network namely provincial roads (PWV15, (K155) and K132 (P58-1) are affected and as such in terms of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001), when an application for a township establishment, change of land use (rezoning, subdivision consent use etc) is lodged with the relevant authority, the said application must be lodged with this Department for evaluation.

Note: must be also taken that an application must be submitted to this Department for a way leave for any part of the proposed service falls within 95 m (measured from the centreline of any of the Departments existing or future road(s)/ railway line.

Where mining operations are to be undertaken, Section 49 of the Gauteng Transport Infrastructure Act, 2001 (Act No 8 of 2001) shall apply. These conditions are laid down in terms of delegated authority in terms of the provisions of the Gauteng Transport Infrastructure Act, Act No 8 of 2001 and do not exempt the applicant/ owner/ successor-in-title from the provisions of any other law.

Dlonysios Arvanitakis (Landowner of property)23.03.2017

Owner of property. The form refers to an individual. The property is a close corporation is it the right form?

Chris Marshall (I&AP)28.03.2017

Need information urgently regarding the layout of the proposed housing development as well as the road networks.

Dave Cheeseman / Peter vd Merwe (I&AP)07.04.2017

Receive herewith attached our application as I & AP stakeholders. Kindly keep us informed of related matters. Portion 44 pf Farm Finaalspan 114 IR is located on the northern boundary of our property. Our interest is in what is planned for the development and common connection linkages between the properties.

Nicholas John Boek (Carnival City Development)20.04.2017

As adjoining property owners we need to be informed of the proposed development and how the discharge of stormwater from our property will be handled on the proposed development. I do not have any objections regarding the proposed development and I therefore wish to express my consent or no-objection for the proposed project.

APPENDIX E11 – OTHER

**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