

## **APPENDIX E**

### Urban Design Framework including Layout Plans



**APPENDIX E-1**  
Urban Design Framework Report





# GAUTENG RAPID LAND RELEASE PROGRAMME

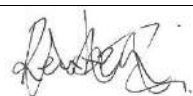
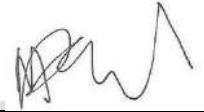

## Draft UDF Report

ERF 14540/R EVATON WEST EXT 7

(PROPER PROJECT I)

MARCH 2021



<b>Job Title</b>	<b>Gauteng Rapid Land Release Programme</b>		<b>Job Number: 1367</b>
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**MARKET STUDY**

Demacon Market Studies



**TRANSPORT AND SERVICES ENGINEERING**

PHUMAF Holdings



## Table of Contents

1	INTRODUCTION.....	1	4	MARKET STUDY.....	27
2	SITE DESCRIPTION AND DELINEATION.....	3	4.1	RESIDENTIAL DEVELOPMENT .....	27
3	SITUATIONAL ANALYSIS.....	4	4.2	RETAIL DEVELOPMENT .....	28
3.1	REGIONAL LOCALITY .....	5	5	DESIGN CONCEPT.....	30
3.2	REGIONAL CONTEXT.....	6	5.1	VISION .....	30
3.3	POLICY FRAMEWORK: SDF .....	7	5.2	DESIGN PRINCIPLES .....	30
3.4	TRANSPORTATION .....	9	5.2.1	MIXED USE .....	30
3.4.1	ROAD NETWORK .....	9	5.2.2	MIXED RESIDENTIAL TYPOLOGY .....	30
3.4.2	PUBLIC TRANSPORTATION.....	9	5.2.3	PERMEABILITY .....	30
3.5	SURROUNDING CHARACTER .....	10	5.2.4	SENSE OF PLACE .....	30
3.5.1	SURROUNDING LAND USE .....	10	5.2.5	MULTI-FUNCTIONALITY/ ADAPTABILITY .....	30
3.5.2	SURROUNDING RESIDENTIAL DEVELOPMENT .....	11	5.2.6	HUMAN SCALE .....	30
3.6	ENVIRONMENTAL CONSIDERATIONS.....	12	5.3	CONCEPT DEVELOPMENT.....	32
3.6.1	LISTED AND SPECIFIED ACTIVITIES.....	12	5.3.1	CONCEPT ALTERNATIVES .....	32
3.6.2	BASELINE ENVIRONMENTAL DESCRIPTION.....	17	5.3.2	POINTS OF ACCESS AND INTERNAL CIRCULATION .....	34
3.6.3	POTENTIAL IMPACTS.....	18	5.3.3	RESIDENTIAL TYPOLOGY, RETAIL AND PUBLIC OPEN SPACE .....	35
3.6.4	RECOMMENDATIONS AND WAY FORWARD .....	21	5.3.4	BUILT FORM AND SENSE OF PLACE ELEMENTS .....	36
3.7	BULK ENGINEERING SERVICES.....	22	6	CONCEPTUAL LAYOUT.....	37
3.8	SERVITUDES .....	22	7	LAND USE BUDGET.....	38
3.9	ZONING .....	22	7.1	LAND USE .....	38
3.10	LAND USE SURROUNDING THE SITE .....	24	7.2	RESIDENTIAL YIELD .....	38
3.11	LAND USE ON THE SITE .....	24	8	PLANNING PROCESSES .....	40
3.12	SCALE AND CONFIGURATION OF THE SITE .....	25	9	CONCLUSION.....	41
3.13	LOCAL ACCESS TO THE SITE .....	26			

## List of Figures

Figure 1: URBAN DESIGN FRAMEWORK DRAFTING PROCESS .....	2
Figure 2: SG DIAGRAM AND WINDEED PROPERTY REPORT .....	3
Figure 3: REGIONAL LOCALITY .....	5
Figure 4: REGIONAL CONTEXT .....	6
Figure 5: SDF PROPOSALS .....	7
Figure 6: EVATON WEST SDF .....	8
Figure 7: ROAD NETWORK .....	9
Figure 8: SURROUNDING LAND USE .....	10
Figure 9: SURROUNDING RESIDENTIAL DEVELOPMENT .....	11
Figure 10: ECOLOGICAL SENSITIVITY MAP .....	17
Figure 11: PENDING APPLICATION .....	23
Figure 12: LAND USE ON AND SURROUNDING THE SITE .....	24
Figure 13: SITE SCALE AND DIMENSIONS .....	25
Figure 14: LOCAL ACCESS TO THE SITE .....	26
Figure 15: URBAN DESIGN PRINCIPLES .....	31
Figure 16: CONCEPT DESIGN OPTIONS .....	32
Figure 17: ACCESS AND INTERNAL STREET NETWORK .....	34
Figure 18: RESIDENTIAL TYPOLOGY AND PUBLIC SPACES .....	35
Figure 19: DESIGN CONCEPT SENSE OF PLACE ELEMENTS .....	36
Figure 20: CONCEPT LAYOUT .....	37
Figure 21: CONCEPT LAYOUT - LAND USE .....	37
Figure 23: 3D-IMAGES .....	39

## List of Tables

Table 1: LISTED ACTIVITIES POTENTIALLY TRIGGERED BY THIS DEVELOPMENT .	12
Table 2: PRELIMINARY IMPACTS IDENTIFIED .....	18
Table 3: ANNEXURE F TABLE A .....	23
Table 4: RESIDENTIAL DEVELOPMENT RECOMMENDATIONS .....	27
Table 5: RESIDENTIAL MARKET STUDY SUMMARY .....	27
Table 6: CONCEPT DESIGN OPTIONS .....	33
Table 7: CONCEPT LAYOUT .....	37
Table 8: LAND USE BUDGET .....	38
Table 9: RESIDENTIAL YIELD PER ERF .....	38

# 1 INTRODUCTION

The Urban Design Framework (UDF) for Erf 14540/R Evaton West Ext 7 (Project I) (the site) forms part of the Gauteng Rapid Land Release Programme (GRLRP) administered by the Gauteng Department of Human Settlements. It falls within the socio-economic development outcome of the GRLRP of '*addressing the housing backlog*'.

The Urban Design Framework (UDF) follows on *Stage 1 – Project Readiness Report* in which the site is earmarked for a future high-density residential development to address the need for affordable housing.

This report contains the draft of the UDF. The UDF consists of five phases:

- **Phase 1: The Situational Analysis** which addresses the site locality, the policy framework, the regional context, the movement network, surrounding development, site characteristics and residential market. The aim of this phase is to develop an in-depth understanding of the site.
- **Phase 2: The Synthesis** which is based on the situational analysis and explores the site development potential and limitations.
- **Phase 3: The Vision** which addresses the development paradigm and objectives.
- **Phase 4: The Design Concept** which contains the design principles, structuring elements, concept alternatives, evaluation of concepts and the final concept.

- **Phase 5: The Detail Design** elaborating on the street network, social facilities, residential densities, the open space network, building typologies and sense of place elements.

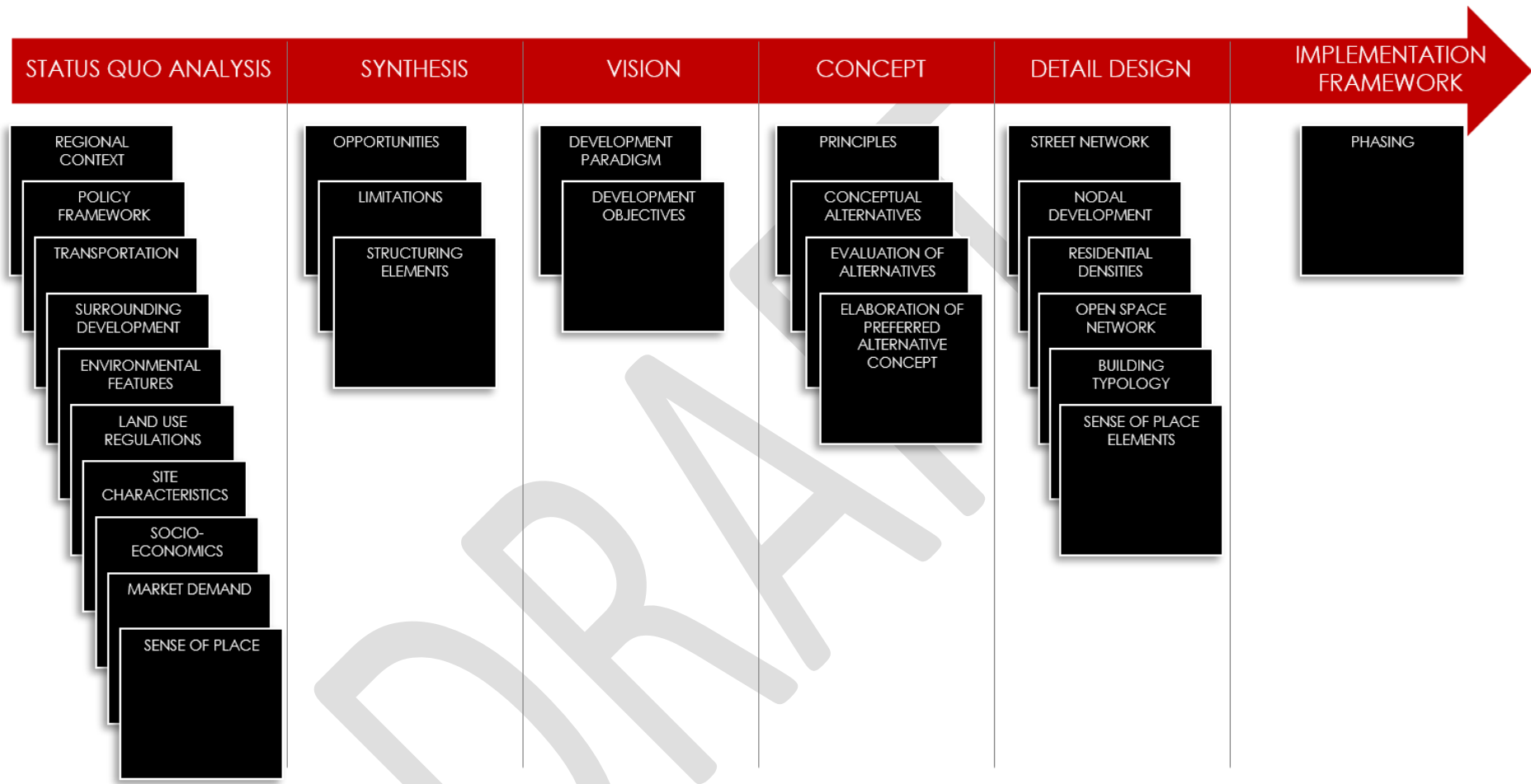


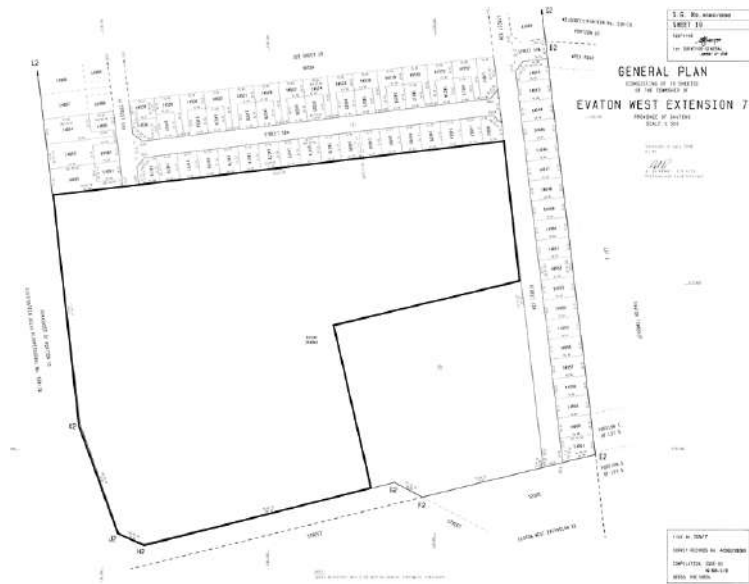
Figure 1: URBAN DESIGN FRAMEWORK DRAFTING PROCESS



## 2 SITE DESCRIPTION AND DELINEATION

Erf 14540/R is 4.3107ha in extent and forms part of the proclaimed township of Evaton West Extension 7 (General Plan 11480/1998) - SG Diagram 8750/2000.

The property is owned by OCWEN INV 85 PTY LTD (Title deed T48565/2017).



### WinDeed Database Deeds Office Property



#### EVATON WEST EXT 7, 14540, 0 (REMAINING EXTENT) (PRETORIA)

GENERAL INFORMATION	
Date Requested	2020/05/12 12:49
Deeds Office	PRETORIA
Information Source	WINDEED DATABASE
Reference	GRLR



PROPERTY INFORMATION	
Property Type	ERF
Erf Number	14540
Portion Number	0 (REMAINING EXTENT)
Township	EVATON WEST EXT 7
Local Authority	EMFULENI LOCAL MUNICIPALITY
Registration Division	IQ
Province	GAUTENG
Diagram Deed	TL6966/2001
Extent	4.3107H
Previous Description	LEASEHOLD
LPI Code	TOIC06090001454000000

OWNER INFORMATION	
Owner 1 of 1	
Type	COMPANY
Name	OCWEN INV 85 PTY LTD
ID / Reg. Number	200001883607
Title Deed	T48565/2017
Registration Date	2017/06/30
Purchase Price (R)	450 000
Purchase Date	2016/04/13
Share	0.00
Microfilm	-
Multiple Properties	NO
Multiple Owners	NO

Figure 2: SG DIAGRAM AND WINDEED PROPERTY REPORT

### 3 SITUATIONAL ANALYSIS

The situational analysis deals with the contextual and regulatory framework and the spatial and environmental characteristics of the site. It serves to develop an understanding of the contextual role of the site within the larger region; the municipal policy framework that guides the future development of the site; the character of the immediate surroundings of the site and its connections to the wider area; the characteristics of the site itself and the socio-economics that determine the feasibility of development.

The Situational Analysis is based on the analysis of the relevant policy documents and frameworks, as well as site surveys and specialist studies, such as an environmental assessment and residential market analysis.

It addresses the following:

- regional locality and context
- policy framework
- transportation
- surrounding land use
- environmental considerations
- legal considerations
- characteristics of the site
- site scale and configuration
- access to the site
- sense of place characteristics
- development opportunities and limitations
- structuring elements
- residential market study

### 3.1 REGIONAL LOCALITY

Erf 14540/R Evaton West Ext 7 is located the southern parts of Gauteng Province in the Sedibeng District Municipality. It is in the Emfuleni Local Municipality. The

site is on the northern border of both the district and the local municipality and directly abuts the City of Johannesburg.

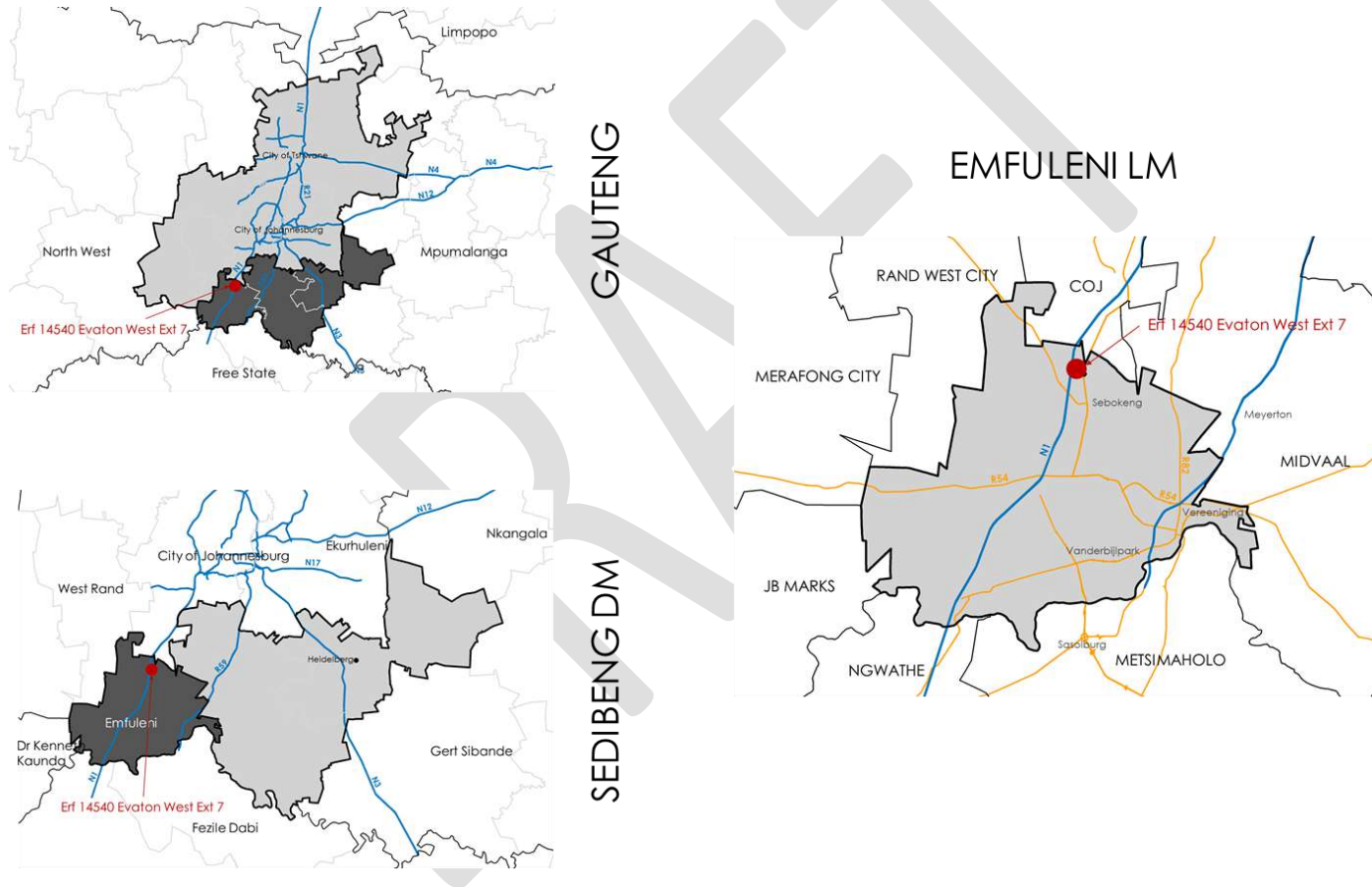


Figure 3: REGIONAL LOCALITY

### 3.2 REGIONAL CONTEXT

The site is located to the east of the N1 which divides the municipal area into the western region which is mostly rural in character and the eastern region which is mostly urban in character.

It is within the Orange Farm - Sebokeng 'urban cluster'. Orange Farm is to the north and Sebokeng to the south. Both abut Evaton and are within 5 – 10km from the site. This cluster is a deprivation area that straddles the Emfuleni and City of Johannesburg municipal areas. 15 – 20km to the north are Lenasia and Ennerdale which are also areas of poverty.

The closest urban nodes are Vanderbijlpark and Vereeniging which are 15-20km to the south.

The site is thus relatively isolated in terms of urban form and economic opportunity.

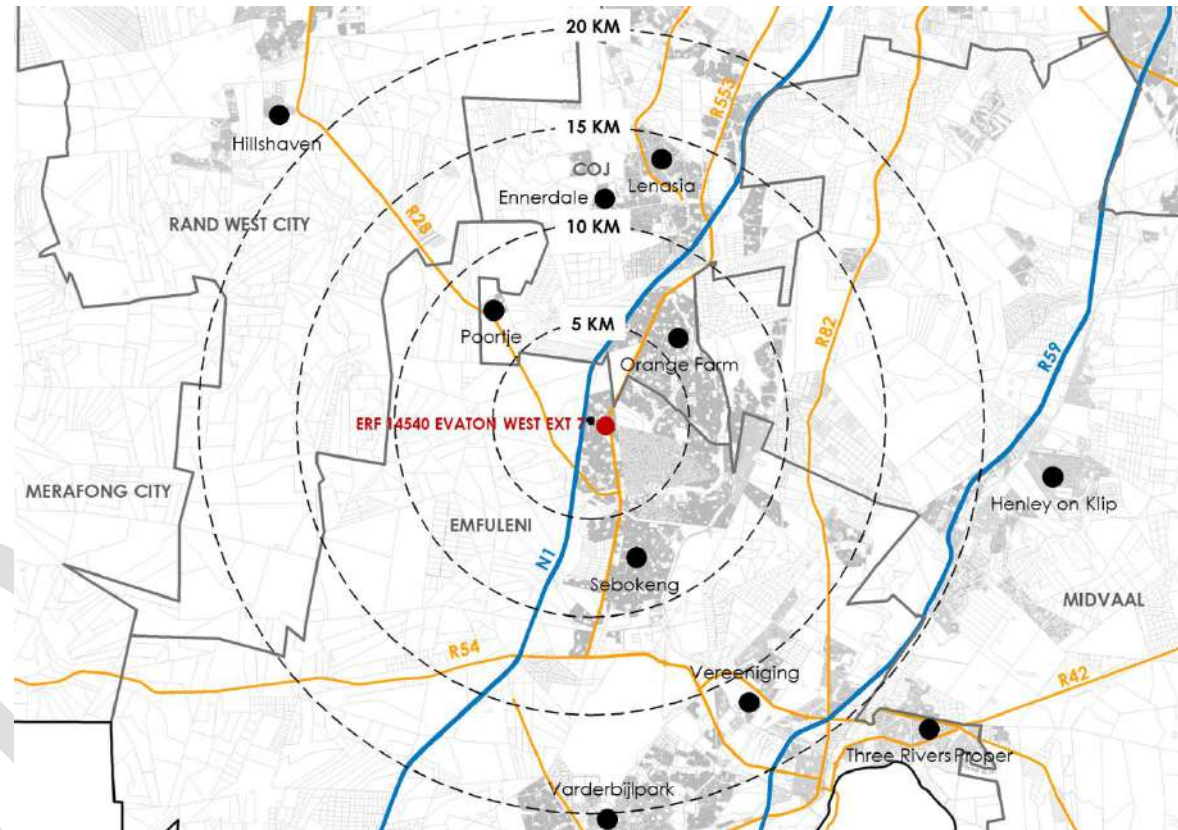


Figure 4: REGIONAL CONTEXT

### 3.3 POLICY FRAMEWORK: SDF

According to the Emfuleni Spatial Development Framework 2017-2025, 2017 Erf 14540/R Evaton West Ext 7 is designated as Urban Residential. For the purposes of Land Use Management, it falls within a 'Medium Density Residential Zone' (Zone 2). The aim and objective of a medium-density residential zone is defined as: 'to encourage residential densities that allows affordable housing development and supports road-based public transport. **A maximum residential density of 60 units per hectare** is allowed within Zone 2. Such densities typically allow for the development of a range of affordable housing typologies within this zone. Residential-supporting land uses to be accommodated within Zone 2 include educational facilities and medical facilities. Zone 2 also allows for the establishment of micro enterprises with the aim to support and promote SMMEs within this zone. Consent for the establishment of micro enterprises are strictly managed by the micro enterprises management system'.

THUS: If the site is fully developed at 60du/ha as proposed by the municipal policy documents, the approximate yield will be 258 units.

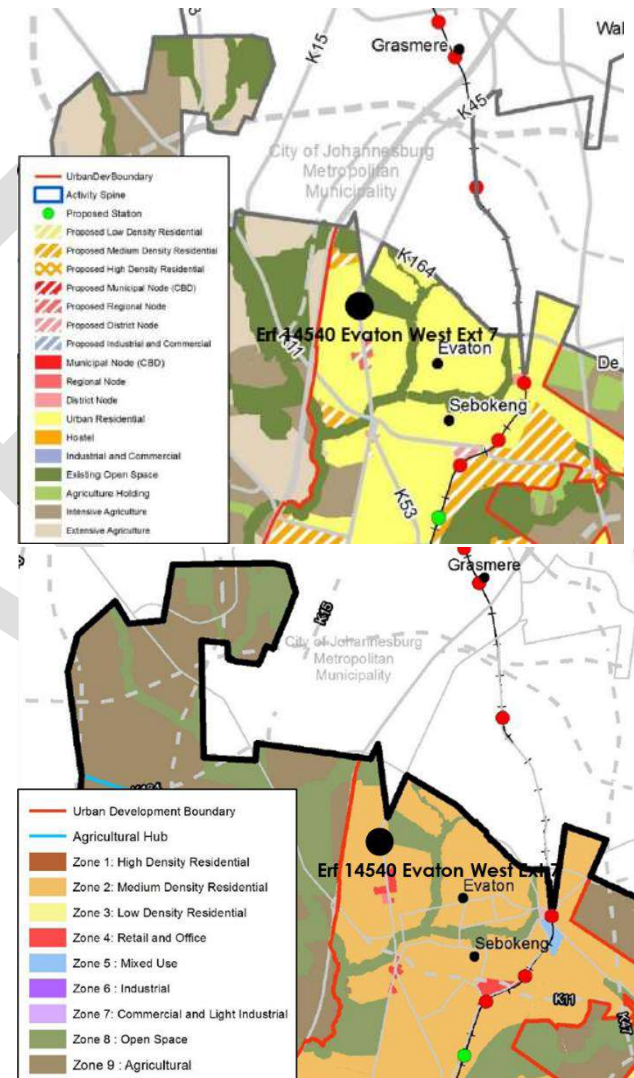


Figure 5: SDF PROPOSALS



The Evaton West SDF also designates the site as Medium Density Residential, similar to the areas to the east and the south. To the north is the CoJ Consolidation Zone and to the south is the Evaton Node. To the west of the N1 is an area designated as Agriculture and Conservation Plan.

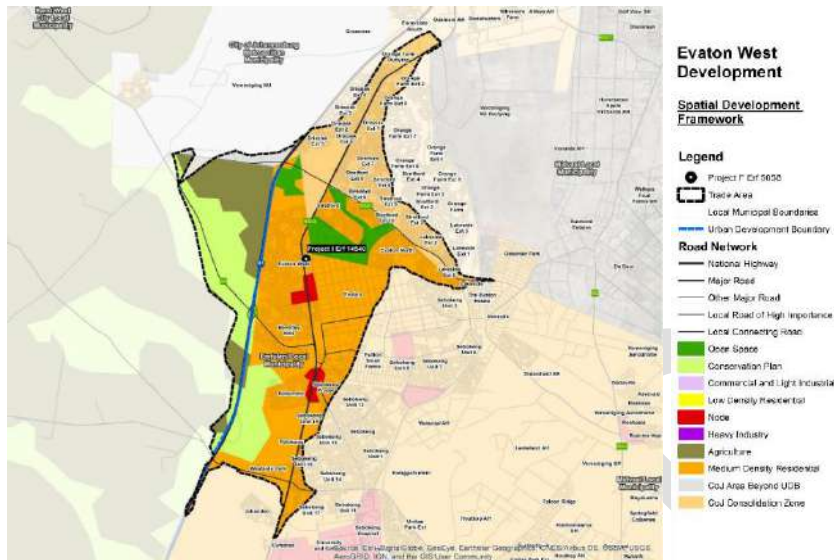


Figure 6: EVATON WEST SDF

### 3.4 TRANSPORTATION

Transportation deals with the road network and public transportation.

#### 3.4.1 ROAD NETWORK

The site is located to the east of the N1, directly adjacent to the east of the Golden Highway (R553) which is a K-route. To the east is Moshoeshoe Street and to the south is Moleli/ Pilanesberg Road. These provide the site with high levels of regional accessibility. On a sub-regional level accessibility is impaired by the lack of connector roads to the N1: access to the N1 is approximately 16.3km or 20 minutes' drive from the development site.

Golden Highway, Moleli/Pilanesberg Road and Moshoeshoe Street are high order local roads which link to Evaton Proper, Orange Farm and Sebokeng. Local accessibility is thus high.

The surrounding area has a well-developed street network. It is however a curvilinear layout which limits permeability for pedestrians.

#### 3.4.2 PUBLIC TRANSPORTATION

The Golden Highway to the west and Moshoeshoe Street to the east are bus and minibus taxi routes. The closest taxi rank is along Adams Road in Evaton Proper approximately 9.5 km from the site. The Golden Highway is designated as an SPTN Route and a bus station and minibus taxi rank are proposed within the Evaton Regional Node to the south.

THUS: the site is well-located on a local level in terms of vehicular and public transport.

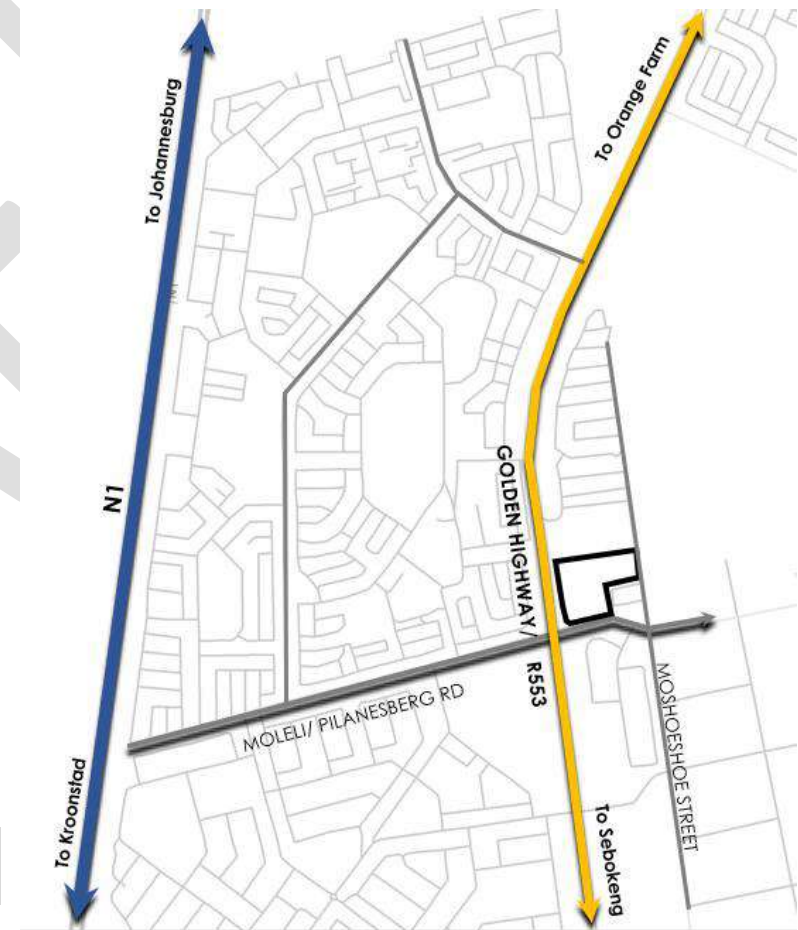


Figure 7: ROAD NETWORK

### 3.5 SURROUNDING CHARACTER

#### 3.5.1 SURROUNDING LAND USE

The site is within a densely built-up area, which is mostly residential in character. There are a number of social facilities in the surroundings: schools, both primary and secondary, to the west, and other social facilities, such as churches to the north-west. Many of the sites earmarked for social facilities are still vacant.

Ample land in close proximity to the site is designated as public open space. These spaces are however not maintained and detract from the amenity of the neighbourhood rather than functioning as an asset.

Some of the vacant sites have been invaded.

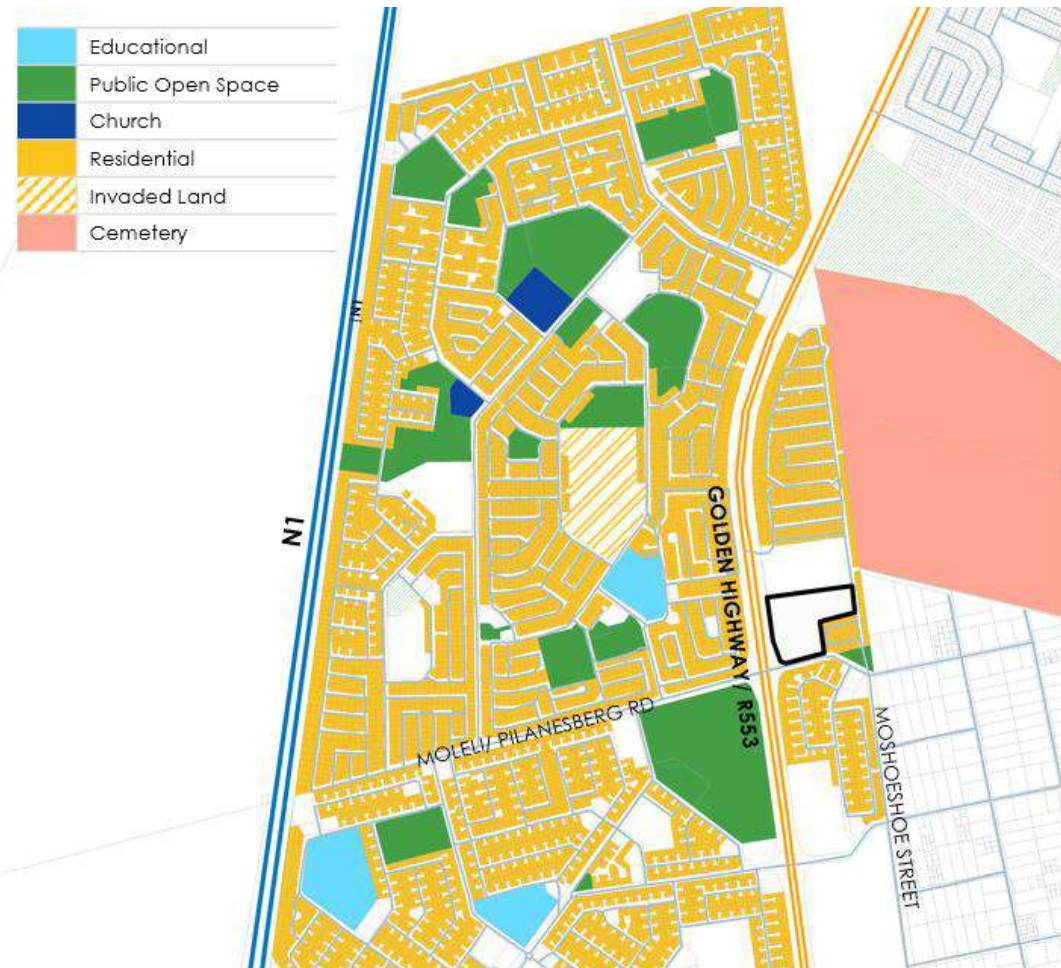


Figure 8: SURROUNDING LAND USE



### 3.5.2 SURROUNDING RESIDENTIAL DEVELOPMENT

The area surrounding the site consists mostly of single residential erven of 250m<sup>2</sup> in extent, resulting in a density of 40du/ha. A limited number that are up to 500m<sup>2</sup> in extent and some are as small as 180m<sup>2</sup>.

Evaton Proper towards the east was established in the early 19<sup>th</sup> century, with original erven exceeding 4 000m<sup>2</sup> translating in a density of 2 du/ha. Since then some densification has taken place with the subdivision of some erven to approximately 500m<sup>2</sup>.

There are extensive backyard units on most residential properties in Evaton West and most of the properties in Evaton Proper accommodate a number of residential structures.

There are no higher density walk-up residential developments within the surrounding area.

THUS: the site is located in a densely built-up area with a variety of social facilities and a predominant residential density of 40du/ha to the west and low-density properties (2du/ha) to the east.



Figure 9: SURROUNDING RESIDENTIAL DEVELOPMENT

### 3.6 ENVIRONMENTAL CONSIDERATIONS

GCS Water and Environment undertook an Environmental Screening exercise in order to confirm the required authorization process, and to identify any risks to the process. Their findings are listed below

#### 3.6.1 LISTED AND SPECIFIED ACTIVITIES

Table 1 below examines the Listed Activities which may potentially have been triggered by this development.

The site will require NEMA authorisation through a Basic Assessment process, due to the development triggering Activity 27 of Listing Notice 1, potentially Activities 12, 14 and 19 of Listing Notice 1, Activities 4, 12 and 15 of Listing Notice 3 and potentially Activity 14 of Listing Notice 3. It is recommended that specialist investigations be undertaken for this site, in order to determine whether a drainage line exists on site, as well as the quality of the vegetation which is present. More information regarding electricity transmission is required in order to clarify Activity 11.

Furthermore, if the site does contain a watercourse, development of this site would constitute a Section 21 (c) and (i) water use, in which case authorisation under the NWA would be required (this may be through a General Authorisation/GA or Water Use Licence/WUL).

Table 1: LISTED ACTIVITIES POTENTIALLY TRIGGERED BY THIS DEVELOPMENT

NOTICE	ACTIVITY NO.	ACTIVITY	APPLICABLE
1	10	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	NA. Site is within urban edge.
	11	The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more;	NA Electricity supply to be provided will be less than identified



NOTICE	ACTIVITY NO.	ACTIVITY	APPLICABLE
		excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is— (a) temporarily required to allow for maintenance of existing infrastructure; (b) 2 kilometres or shorter in length; (c) within an existing transmission line servitude; and (d) will be removed within 18 months of the commencement of development.	threshold within the urban edge.
	12	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —	Possible A drainage channel may exist on site, which would be affected by the development.
	14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	Possible Development layout may include a filling station
	19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;	Possible A drainage channel may exist on site, which would be affected by the development.
	24	The development of a road— (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road— (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter.	NA Site is within urban edge.
	27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—	Yes

NOTICE	ACTIVITY NO.	ACTIVITY	APPLICABLE
		(i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	4.32 ha will potentially be cleared
	28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	NA Site is within an urban area and smaller than 5 ha
2	15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	NA 4.32 ha will potentially be cleared
	27	The development of a road— (iii) with a reserve wider than 30 metres; or (iv) catering for more than one lane of traffic in both directions; but excluding a road— (a) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010, in which case activity 24 in Listing Notice 1 of 2014 applies; (b) which is 1 kilometre or shorter; or (c) where the entire road falls within an urban area.	NA Site is within urban edge.
3	4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. c. Gauteng i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans; v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);	Yes Soweto Highveld Grassland = Vu, Not CBA/ESA, Zoning = park, which falls under "open space" according to the draft Emfuleni Land

NOTICE	ACTIVITY NO.	ACTIVITY	APPLICABLE
		vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority; vii. Sites identified as high potential agricultural land in terms of Gauteng Agricultural Potential Atlas; viii. Important Bird and Biodiversity Area (IBA); ix. Sites or areas identified in terms of an international convention; x. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA; xi. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or xii. Sites zoned for conservation use or public open space or equivalent zoning.	Use Scheme (March 2020).
	12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. c. Gauteng <ol style="list-style-type: none"> <li>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</li> <li>ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans; or</li> <li>iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</li> </ol>	Yes 4.32 ha will potentially be cleared. Soweto Highveld Grassland = Vu, Not CBA/ESA, Zoning = park, which falls under "open space" according to the draft Emfuleni Land Use Scheme (March 2020).
	14	The development of— <ol style="list-style-type: none"> <li>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or</li> <li>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;</li> </ol> where such development occurs— <ol style="list-style-type: none"> <li>(a) within a watercourse;</li> <li>(b) in front of a development setback; or</li> <li>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</li> </ol> c. Gauteng	Possible A drainage channel may exist on site, which would be affected by the development. Zoning = park, which falls under "open space" according to the draft Emfuleni Land Use Scheme (March 2020).

NOTICE	ACTIVITY NO.	ACTIVITY	APPLICABLE
		i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans; v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004); vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority; vii. Sites or areas identified in terms of an international convention; viii. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA; ix. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or x. Sites zoned for conservation use or public open space or equivalent zoning.	
	15	The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010. b. Gauteng i. All areas.	Yes Zoning = park, which falls under "open space" according to the draft Emfuleni Land Use Scheme (March 2020).

### 3.6.2 BASELINE ENVIRONMENTAL DESCRIPTION

#### 3.6.2.1 BIOPHYSICAL ENVIRONMENT

The site is not located within a sensitive area as delineated by the Gauteng Conservation Plan. However, to the west there is a Critical Biodiversity Area associated with a tributary of the Rietspruit. This tributary has been identified as a National Freshwater Ecosystem Priority Area (NFEPA) and is of high conservation value. Furthermore, thick vegetation present on site indicates that there may be a watercourse present in the vicinity- this needs to be confirmed by a specialist.

The site is located within the Soweto Highveld Grassland ecosystem type, which is listed as Vulnerable (GN 1002, GG 34809, 2011). However, during the site inspection, the land was noted as being heavily disturbed as well as being surrounded by development. Thus, does not present a good opportunity to preserve this ecosystem type.

According to the Department of Environmental Affairs, the following sensitivities pertain to the

- Agricultural theme- High sensitivity
- Animal species theme- Medium sensitivity
- Aquatic biodiversity theme- Low sensitivity
- Plant species theme- Medium sensitivity
- Terrestrial biodiversity theme- Very high sensitivity (Soweto Highveld Grassland ecosystem- vulnerable)



site:

Figure 10: ECOLOGICAL SENSITIVITY MAP



### 3.6.2.2 SOCIO-ECONOMIC ENVIRONMENT

According to the Sedibeng Growth and Development Strategy 2 (Sedibeng District Municipality, 2012), the Evaton population is identified to be on the low Living Standards Measure with a low access to services. This places the community as vulnerable to impact. The community also has a high unemployment rate. These factors must be considered when proposing development within Evaton West. The community is not positioned to address impacts to their human health, living conditions or environment. Therefore, it is important that the developer communicate with neighbouring community members in order to minimize negative impacts of the development. This will be focused within the construction phase of the project.

It must be noted that neighbouring households are located within 15m of the proposed development area.

According to the Department of Environmental Affairs, the following sensitivities pertain to the site:

- Civil aviation theme- Medium sensitivity
- Defence theme- Low sensitivity

### 3.6.3 POTENTIAL IMPACTS

Table 2 below summarises the potential impacts which could result from the development of this site.

Table 2: PRELIMINARY IMPACTS IDENTIFIED

POTENTIAL ENVIRONMENTAL IMPACT	IDENTIFIED ACTIVITY	RECOMMENDED MITIGATION MEASURES	ACTION PLAN
GEOLOGY			
Altering of geological strata	Foundations	Little to no impact and therefore no mitigation necessary	Compile and implement an Environmental Management Plan.
TOPOGRAPHY AND DRAINAGE			
Alteration of natural topography	Residential development	Stormwater drainage should be managed.	Implement a stormwater management plan during construction. Compile and implement an Environmental Management Plan.
SOILS, LAND USE AND LAND CAPABILITY			

POTENTIAL ENVIRONMENTAL IMPACT	IDENTIFIED ACTIVITY	RECOMMENDED MITIGATION MEASURES	ACTION PLAN
Loss of soil resource, land use and land capability	Residential development	This is predominantly infill development and will not have a significant impact on land use and capability.	None
Contamination of soil resources	Residential development	This needs to be managed, especially during construction.	Compile and Implement an Environmental Management Plan. Implement Environmental Awareness and Response Plan.
<b>SURFACE WATER</b>			
Change in Drainage patterns	Residential Development	Stormwater management to be considered.	Design for optimal drainage and compile and implement a Stormwater Management Plan. Implement Environmental Awareness and Response Plan.
Contamination of Surface Water resources	Residential Development	Keep clean and dirty water areas separate and don't allow for contaminated water or spills to enter the environment.	Compile and Implement Stormwater Management Plan and Environmental Management Plan. Implement Environmental Awareness and Response Plan.
<b>HYDROGEOLOGY</b>			
Potential contamination of groundwater resources	Residential Development	Little to no impact expected	Compile and Implement Environmental Management Plan.
<b>ECOLOGY</b>			
Disruption of ecological connectivity	Residential Development	No land use changes or other disturbances of animals outside of the study area should be allowed.	Signs should be erected on site and access roads limiting the speed to no more than 40 km/hour. Compile and Implement Environmental Management Plan.
Loss and degradation of faunal habitat	Residential Development	Impacts should be limited	Prohibit habitat degradation or destruction outside of boundary fences. Compile and Implement Environmental Management Plan.
Loss of biodiversity	Residential Development	Little to no impacts expected.	Compile and Implement Environmental Management Plan.

POTENTIAL ENVIRONMENTAL IMPACT	IDENTIFIED ACTIVITY	RECOMMENDED MITIGATION MEASURES	ACTION PLAN
Spreading of weeds and alien vegetation	Residential Development	Little to no impact expected.	Compile and Implement Environmental Management Plan.
<b>NOISE</b>			
Noise nuisance	Construction phase	Workers should be equipped with appropriate gear to ameliorate the effects of noise levels. Construction activities will be limited to the hours of 07h00 to 18h00 weekdays.	Compile and Implement Environmental Management Plan.
<b>AIR QUALITY</b>			
Fugitive dust releases	Construction Phase	Manage dust during construction phase.	Compile and Implement Environmental Management Plan. Implement speed limits on roads. Implement dust suppression.
<b>HERITAGE</b>			
Possible damage to heritage artefacts	Residential development	Little to no impact expected.	Notice of Intent to Develop submitted to SAHRA Compile and Implement Environmental Management Plan. Implement Environmental Awareness and Response Plan.
<b>SOCIO-ECONOMIC</b>			
Increase in crime	Influx of job seekers	Manage the site access. Manage employee movement. Provide a grievance mechanism with adjacent landowners.	Compile and Implement Environmental Management Plan. Stakeholder Communication Strategy and Grievance Mechanism.
Existing Residents / Land Users	Relocation	A social specialist should be appointed to facilitate the resettlement of existing informal residents on the site.	Resettlement Action Plan should be compiled in communication with the affected residents and implemented.
Noise and dust	Construction Phase	Addressed above.	Compile and Implement Environmental Management Plan.

### 3.6.4 RECOMMENDATIONS AND WAY FORWARD

#### 3.6.4.1 AUTHORISATIONS

The site will require NEMA authorisation through a Basic Assessment process, due to the development possibly triggering Activity 27 of Listing Notice 1 and Activities 4, 12 and 15 of Listing Notice 3.

Furthermore, if the site does contain a watercourse, development of this site would constitute a Section 21 (c) and (i) water use, in which case authorisation under the NWA would be required.

The Basic Assessment Process will be carried out through the following phases:

- Project Initiation;
- Project Announcement and IAP Registration;
- Draft Report and Application;
- Public Participation and Review;
- Finalise Report;
- Submission and Follow up.

#### 3.6.4.2 SUPPORTING DOCUMENTS / ACTIVITIES

The following specialist studies should be carried out to clarify the sensitivity of the site:

- Aquatic ecology and wetland survey;
- Botanical/ veld assessment; and
- Agricultural assessment.

It is recommended that the following is carried out in order to follow best practice and minimise environmental harm:

- Environmental Management Plan (EMP) is compiled and implemented during the construction phase. This will be a component of the Basic Assessment Process and will be attached as a supporting document to the Basic Assessment Report.
- An Environmental Control Officer (ECO) is employed by the client during the construction phase to audit the site on a regular basis and ensure compliance of to the EMP.
- A Notice of Intent to Develop (NID) should be sent to the South African Heritage Resources Agency (SAHRA) to indicate the proposed development.
- Resettlement Action Plan to be compiled and facilitated by a social specialist and in communication with the affected residents.

The resettlement of existing residents may be a complicated process which must be well communicated to the residents through a Resettlement Action Plan process. However, through the undertaking of the Basic Assessment Process and with the implementation of the above recommendations, the client will ensure that best practice is followed, and that effective mitigation and management can be undertaken to minimise any negative impacts.

### 3.6.4.3 WAY FORWARD AND CONCLUSION

GCS recommends that specialist investigations are carried out on site to determine the sensitivity of the potential watercourse as well as the indigenous vegetation.

An agricultural potential assessment should also be conducted in order to determine whether or not the site represents a good opportunity to preserve highly sensitive agricultural land, as indicated in the DEA screening report.

## 3.7 BULK ENGINEERING SERVICES

The Bulk Engineering Services Report concludes the following:

- There is currently insufficient capacity in the existing reservoirs to accommodate the proposed development and densities. Additional studies will be required to determine a suitable reservoir to supply the proposed development or whether a new reservoir is needed.
- There is currently insufficient capacity in the wastewater treatment works to accommodate the proposed development and densities.
- There are no records of any service installed to accommodate this development and new water and sewer pipes will need to be installed to provide connections.
- Additional capacity analysis of the network pipes will be required with a GLS report to determine if and any upgrades that are required on the network

pipes for both the water and sewer pipes. At the time of this report, the time and budget did not allow for this level of investigation.

- Additional services (roads, stormwater, water and Sewer) would need to be installed to accommodate the proposed development.
- A traffic impact assessment is required to determine any additional capacity required on the roads.
- No formal storm water exists, a masterplan and new infrastructure is required to support the development.

## 3.8 SERVITUDES

There are no servitudes that affect the site.

## 3.9 ZONING

The erf is designated as a 'park' as per General Plan Nr11480/1998.

However, according to paragraph 1(d) of title deed T48565/2017 the use zone for erf 14540 Evaton West Extension 7 is 'Residential'.

As per paragraph 1(a) of the title deed T48565/2017, "The use of the erf is as defined and subject to such conditions as are obtained in the Land Use Regulations, 1986 made in terms of section 66(1) of the Black Communities Development Act, No. 4 of 1984..."

Act No.4 of 1984 defines 'Residential Building' as: '... a building designed or used primarily for human habitation

and the uses permitted in paragraph 8, which may include one or more dwelling units’.

Table 3: ANNEXURE F TABLE A

Use Zone	Permitted uses	Uses permitted only with the consent of the responsibility authority	Prohibited uses
Residential	Residential Buildings	Places of worship, places of instruction, social and recreational purposes, institution, medical suites, special purposes	Uses not under column (2) or (3)

As per Annexure F Table B, the permissible coverage for ‘Residential’ is 60% with a height restriction of 2 storeys.

There is a pending application on the site for 144 residential stands.



Figure 11: PENDING APPLICATION

### 3.10 LAND USE SURROUNDING THE SITE

To the south of the site are single residential erven of approximately 250m<sup>2</sup> in extent and to the west are single residential erven ranging between 290m<sup>2</sup> and 375m<sup>2</sup>. To the east is a cemetery and to the south-east are large single residential erven exceeding 4 000m<sup>2</sup>, with some subdivided into 500m<sup>2</sup> erven. The Thabeng Primary School is in this neighbourhood.

Directly to the north is a vacant property and some land that is invaded. Further north are single residential erven of around 200m<sup>2</sup>.

Across the Golden Highway to the west of the site are single residential stands larger than 250m<sup>2</sup>, invaded land and a public open space.

### 3.11 LAND USE ON THE SITE

The site is currently mostly vacant. There are a small number of informal residential structures on the north-western corner of the site.

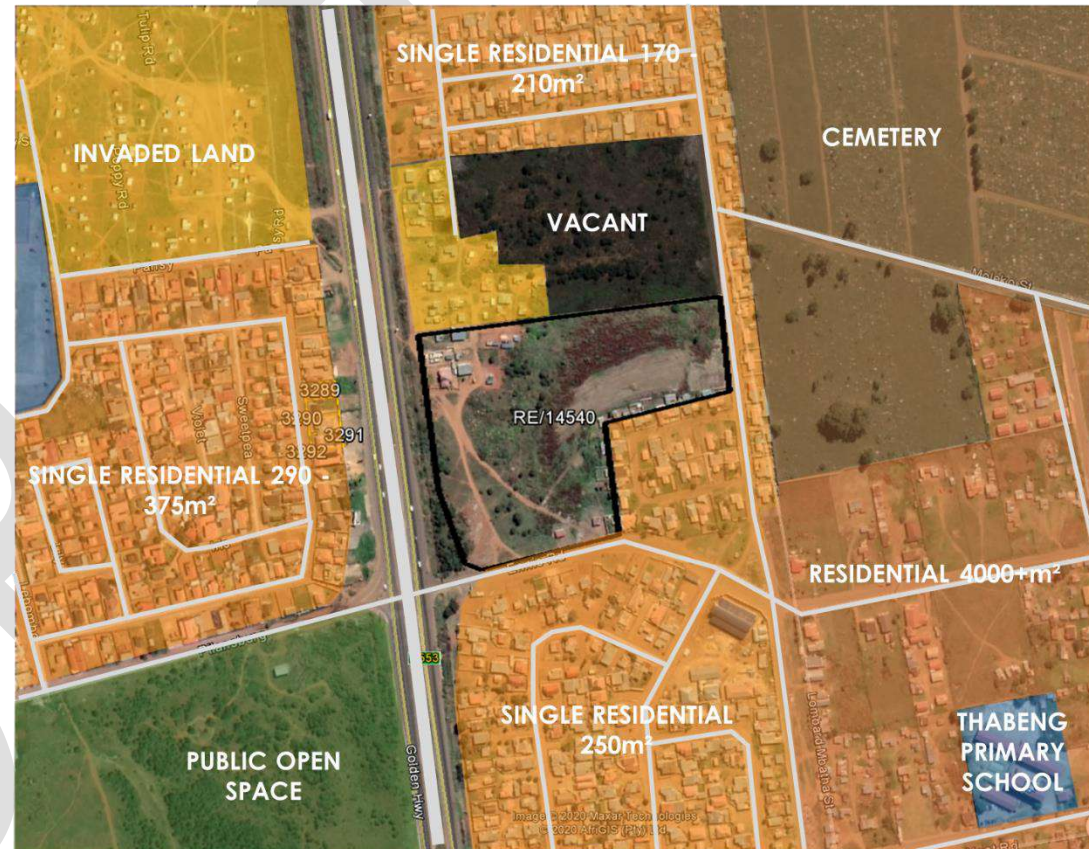


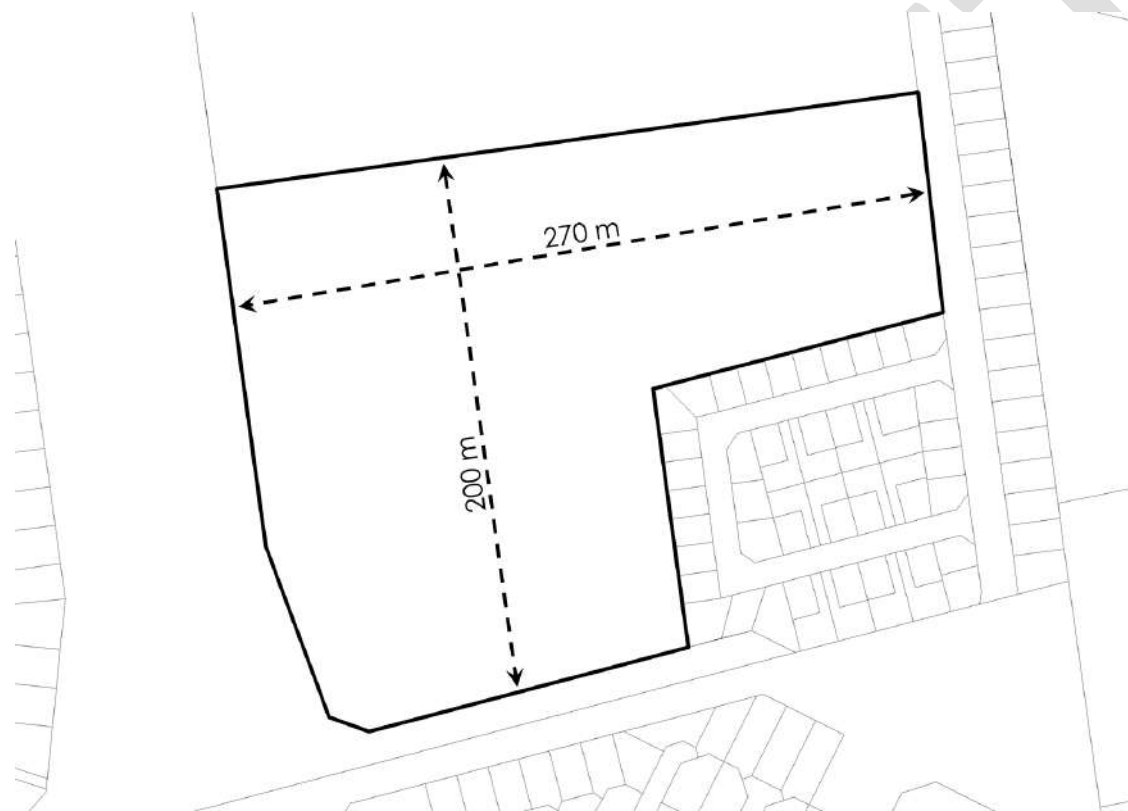
Figure 12: LAND USE ON AND SURROUNDING THE SITE



### 3.12 SCALE AND CONFIGURATION OF THE SITE

The site is approximately 4.3 ha in extent. It is rectangular in shape with dimensions of 200m north south and 270m west east.

Pennyville and Brickfields are used for size comparison. The site is roughly the same size as the Brickfields development in the Johannesburg CBD.



**BRICKFIELDS**



**PENNYVILLE**



Figure 13: SITE SCALE AND DIMENSIONS



### 3.13 LOCAL ACCESS TO THE SITE

Access to the site is limited. No access can be obtained from the north and portions of the east and the south of the site due to directly abutting erven. There is no direct access from the Golden Highway as it is a K-route and has a mobility function.

The site boundary along Ennis Road is 130m long. This gives an insufficient distance from the intersection of Golden Highway and Ennis Road.

The only access can be obtained from Lombard Mbatha Street in the east. The boundary of the site in the east is only 80m in length and only one point of access will be viable.

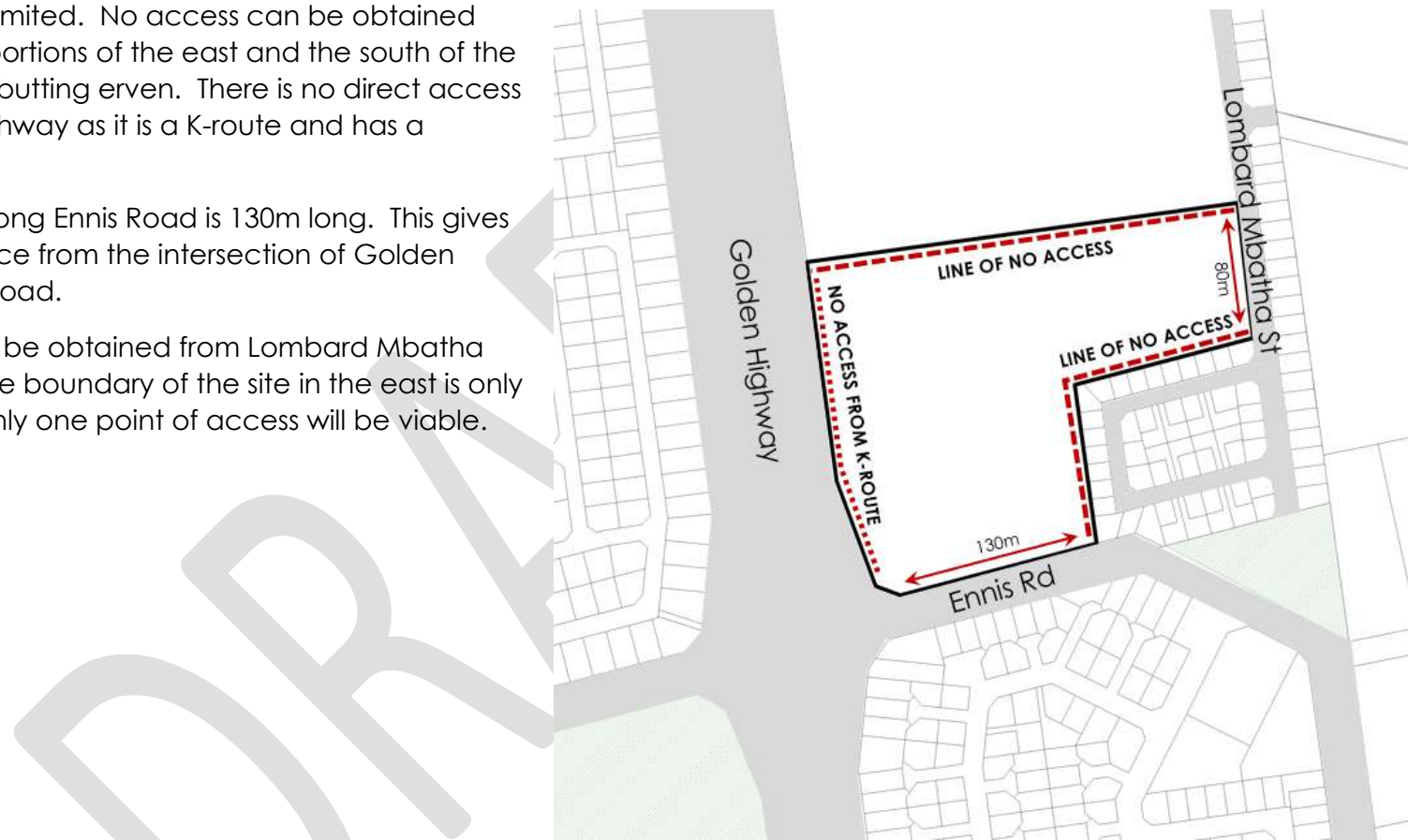


Figure 14: LOCAL ACCESS TO THE SITE

## 4 MARKET STUDY

Based on the residential market study, social housing represents a reasonably good fit, considering the affordability and rental profile of the market area. *The residential environment is, however, dominated by freestanding freehold houses. No medium to higher density residential developments are located within the market area (specifically 3 to 4 storey walk-up units). Site layout and design considerations need to be sensitive to these realities. As site and service development scheme might be preferred by the consumer market. A case could be made for **medium density rental stock in proximity to employment opportunities and commercial developments**. A convenience retail development can be considered for Project I. Depending on traffic counts (to be conducted) a filling station might prove to be viable. A convenience centre with a filling station could easily employ 150 people.*

### 4.1 RESIDENTIAL DEVELOPMENT

The following aspects are taken into consideration:

- *The proposed project size of **200 units** could be accommodated by the primary trade area within an average time period of 3.7 years, given a market share of 5% to 8%.*
- *It is evident that there is a market for lower to lower-middle income residential units.*
- *Based on the area's residential typology the majority of units include freehold property on separate stands.*

- *To develop medium to higher density social housing, certain locational realities need to be borne in mind.*
- *Configuration of units: 3 to 4 storey walk-ups.*
- *Unit sizes: ±30m<sup>2</sup> - 60m<sup>2</sup>.*
- *The optimum point of market entry based on the market demand analysis would be 2020+.*
- *In the context of the target market profile, the optimum unit composition for residential units in the proposed development (to facilitate optimum take-up) would be:*

Table 4: RESIDENTIAL DEVELOPMENT RECOMMENDATIONS

Unit configuration	Unit Size (sqm)	Rental Bracket (Rand/month)	% of Stock
Bachelor	30 to 35 m <sup>2</sup>	R400 to R700	25% to 30%
1-Bedroom	35 to 40 m <sup>2</sup>	R700 to R1 300	30% to 35%
2-Bedrooms	40 to 45 m <sup>2</sup>	R1 300 to R2 600	20% to 25%
2 to 3 Bedrooms	45 to 60 m <sup>2</sup>	R2 600 to R5 500	10% to 15%

Table 5: RESIDENTIAL MARKET STUDY SUMMARY

LAND USE	SITE RATING	MARKET GAP DEVELOPMENT PROSPECTS	DEMAND MODELLING RESULTS	OPTIMUM POINT OF MARKET ENTRY
Residential: Social housing units	64.9%	Market Gap: Yes  Development prospects: Moderate	Social housing units: 200	2020+

## 4.2 RETAIL DEVELOPMENT

In addition to the residential component, a convenience retail development is proposed.

The following aspects are taken into consideration:

- The area is characterized by a limited number of convenience centres.
- Ongoing residential infill, densification and growth, contribute to create additional demand over time.
- In the context of the above, a centre of  $\pm 3\,600\text{m}^2$  GLA could be sustained at the proposed development site at a future market entry point beyond 2022.
- A centre of this size classifies as a local convenience centre.
- Such a centres should be able to attain a retail sales potential of  $\pm R99.8$  million per annum, employing  $\pm 121$  employees and requiring at least 145 parking bays.
- **A 1.1 ha site would be required for the convenience retail development and an additional 5 000 sqm for a filling station, should traffic counts affirm its viability.**
- Site layout and configuration should ideally be two thirds wide and one third deep, orientated broad side towards the Golden Highway in order to optimize exposure.
- Performance will be dependent on, inter alia, appropriate tenant composition.

- The parking area should be accessible, convenient, paved and well-lit in the evenings
- Provision should be made for public transport drop-off point/ the inclusion of a taxi rank.

LAND USE	SITE RATING	MARKET GAP DEVELOPMENT PROSPECTS	DEMAND MODELLING RESULTS	OPTIMUM POINT OF MARKET ENTRY
Local Convenience Centre	64.3%	Market Gap: Yes Development prospects: Moderate	$\pm 3\,600\text{m}^2$	2022+

Anchor tenant:

- Usually smaller than  $\pm 1\,000\text{m}^2$  with the typical tenants being a café, superette, Woolworths Food or other smaller grocery stores such as Kwik Spar or Pick n Pay Daily.

The other tenant types to be found in these centres are convenience retailers:

- Pharmacy
- Deli
- Butchery
- Hairdresser
- Dry cleaner
- Liquor store
- Florist
- Hardware store
- Small eating places/fast-food outlets.

A filling station could be considered as part of the retail development, however, this needs to be confirmed through traffic counts.

DRAFT

## 5 DESIGN CONCEPT

The design concept develops the spatial design explorations for the UDF. It is based on the situational analysis and synthesis and serves as the basis for the detail design. It explores different potential options and extracts the highest and best solutions.

The design concept deals with:

- The vision for the development
- The design principles that guides the development of alternative concepts and the evaluation of these alternatives
- The development of the different elements of the concept addressing access, the road network, nodes and public spaces, residential densities and sense of place elements

### 5.1 VISION

The vision for the development is:

*A mixed-use higher density residential development that provides in the need for housing for a range of households.*

### 5.2 DESIGN PRINCIPLES

Six design principles guide the urban design concept. These relate to the spatial qualities of the development.

#### 5.2.1 MIXED USE

Mixed use refers to the appropriate level of mix of different land uses within one building or close proximity to each other. The aim is firstly to address a

range of needs within walking distance thus reducing the need for vehicular travel and secondly to ensure a 24-hour city.

#### 5.2.2 MIXED RESIDENTIAL TYPOLOGY

Mixed residential typology refers to a mix of different residential typologies, both in terms of structure and in terms of tenure, to address the needs of different income groups and different household types thereby creating socio-economic integration.

#### 5.2.3 PERMEABILITY

Permeability refers to the ease of movement through an area by foot. It is prejudiced towards the pedestrian and non-motorised transport rather than the private vehicle. Permeability necessitates direct routes and short walking distances.

#### 5.2.4 SENSE OF PLACE

Sense of place refers to the unique character of an area and its imageability. It addresses aspects such as gateways, landmarks, vistas.

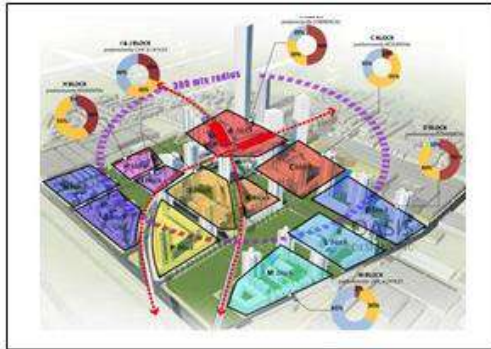
#### 5.2.5 MULTI-FUNCTIONALITY/ ADAPTABILITY

Multi-functionality/ adaptability refers to the use of space for more than one function and the ability to use space in different ways over time.

#### 5.2.6 HUMAN SCALE

Human scale refers to an environment that fits the scale of its users.

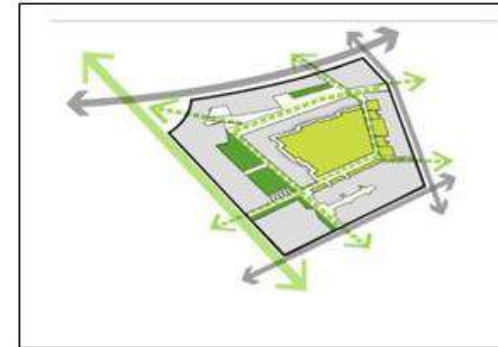
MIXED USE



MIXED TYPOLOGY



PERMEABILITY



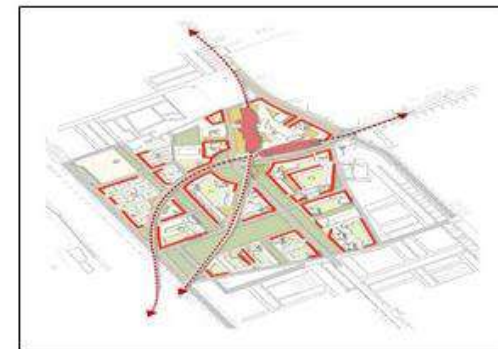
SENSE OF PLACE



MULTI-FUNCTIONALITY/  
ADAPTABILITY



HUMAN SCALE



<http://oasisdesigns.org/todkarkarduma.asp>



Figure 15: URBAN DESIGN PRINCIPLES



### 5.3 CONCEPT DEVELOPMENT

This section deals with the development of the concept.

It addresses:

- Points of access
- Internal circulation
- Retail, social facilities and public spaces
- Residential typologies
- Sense of place elements

#### 5.3.1 CONCEPT ALTERNATIVES

Four concepts have been developed:

- OPTION 1: higher density residential development in line with the residential market study that identified the demand for 200 social housing dwelling units.
- OPTION 2: medium density housing consisting of a mix of residential typologies at a density of 60du/ha as prescribed by the SDF. A mix of walk-up flats and single residential erven with a minimum erf size of 250m<sup>2</sup> was applied.
- OPTION 3: higher density mixed use development in line with the residential market study that identified the demand for 200 social housing dwelling units, as well as a retail component with a GLA of 3 500m<sup>2</sup> (1.6ha).
- OPTION 4: medium density mixed use development consisting of a mix of residential typologies at a density of 60du/ha as prescribed by the SDF. A mix of walk-up flats and single residential erven with a minimum erf size of 250m<sup>2</sup> was applied. In addition, a retail component with

a GLA of 3 500m<sup>2</sup> (1.6ha) was accommodated as in line with the market study.





OPTION 4 was selected as it provides a greater variety of residential typologies and is in line with the municipal spatial policy both in terms of density and of minimum erf size and it generates an income through commercial development on a highly visible site.



Figure 16: CONCEPT DESIGN OPTIONS

The four design concepts are summarised in the table below:

Table 6: CONCEPT DESIGN OPTIONS

	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Erf size	4.3ha	4.3ha	4.3ha	4.3ha
Portion of site used for residential purposes	3.5ha	3.3ha	2.1ha	1.97ha
Walk-up/ row housing dwelling units	475	196 dwelling units 1.9ha area Net density: 100 du/ha	346	131 dwelling units 1.23ha area Net density: 107 du/ha
250m <sup>2</sup> erven	0	49 dwelling units 1.4ha area Net density: 35 du/ha	0	25 dwelling units 0.74ha area Net density: 34du/ha
Total nr of units	475	245	346	156
Site residential density	110 du/ha	57 du/ha	115 du/ha (excluding retail site)	52 du/ha (excluding retail site)
Net residential density	135 du/ha	74 du/ha	156 du/ha (excluding retail site)	70 du/ha (excluding retail site)
Retail	0m <sup>2</sup>	0m <sup>2</sup>	1.3ha GLA of 3 600m <sup>2</sup> filling station	1.29ha GLA of 3 915m <sup>2</sup> filling station
Layout plan				

### 5.3.2 POINTS OF ACCESS AND INTERNAL CIRCULATION

No access can be obtained to the site from the north and portions of the east and the west, as the site directly abuts erven. To the west no access can be obtained from the Golden Highway due to it being a K-route.

Access along Ennis Road will be restricted as the erf boundary is only 130m long as measured from the intersection of Ennis Road and the Golden Highway and a minimum distance of 100m is needed to obtain an access.

The only access can be obtained from the east from Lombard Mbatha Street. The erf boundary is 80m along this street. Only one access point is viable. The proposed access point to the east will be in the middle of the boundary providing comfortable block sizes to the north and south of the road.

The internal street network will consist of an east-west access route from Lombard Mbatha Street and a north-south street linking to the south-eastern portion of the site. Both of these terminate in two circular roads giving access to the western portion of the site. The width of the north-south and east-west roads is 16m and the width of the circular road is 13m.

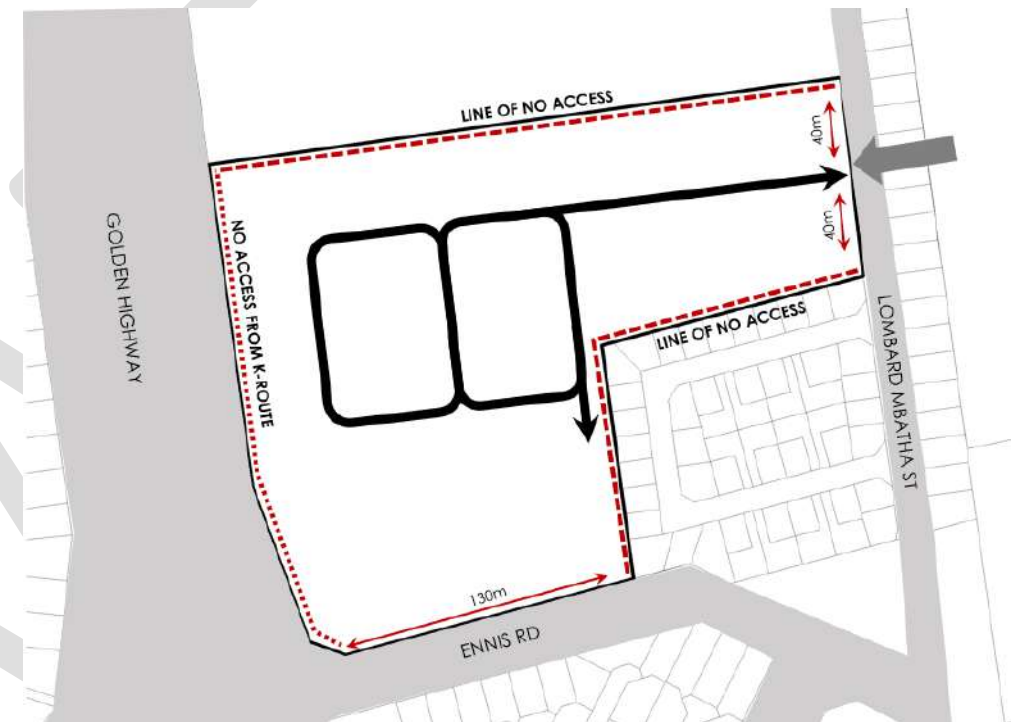


Figure 17: ACCESS AND INTERNAL STREET NETWORK

### 5.3.3 RESIDENTIAL TYPOLOGY, RETAIL AND PUBLIC OPEN SPACE

The southern portion of the site on the corner of Golden Highway and Ennis Road is earmarked for a retail centre as this area has the highest level of visibility. 1.3ha of the 4.3ha is earmarked for retail as proposed by the market study. This includes a convenience centre with a GLA of approximately 3 915m<sup>2</sup> and a filling station.

The bulk of the site (2ha of 4.3ha is used for residential development).

The northern and western perimeter of the site is earmarked for two storey walk-ups. The walk-ups are located on **1.2ha** and approximately **131 units** can be achieved with a resultant **net density of 107du/ha**.

The central and south eastern periphery of the site is earmarked for single residential erven. These are placed adjacent to the abutting residential properties to form a buffer between the walk-up flats and the surrounding low-density development. A total of **25 dwelling units with a minimum erf size of 250m<sup>2</sup>** can be achieved. This takes up **0.74ha** of the site and a resultant net density of **34du/ha**.

Overall a total of **156 dwelling units** can be provided with a resultant **site density of 52du/ha** and a **net density of 70du/ha** (both excluding the retail site).

A communal open space is proposed at the centre of the development. A small social facility, such as a community hall or creche should be developed within the public open space.

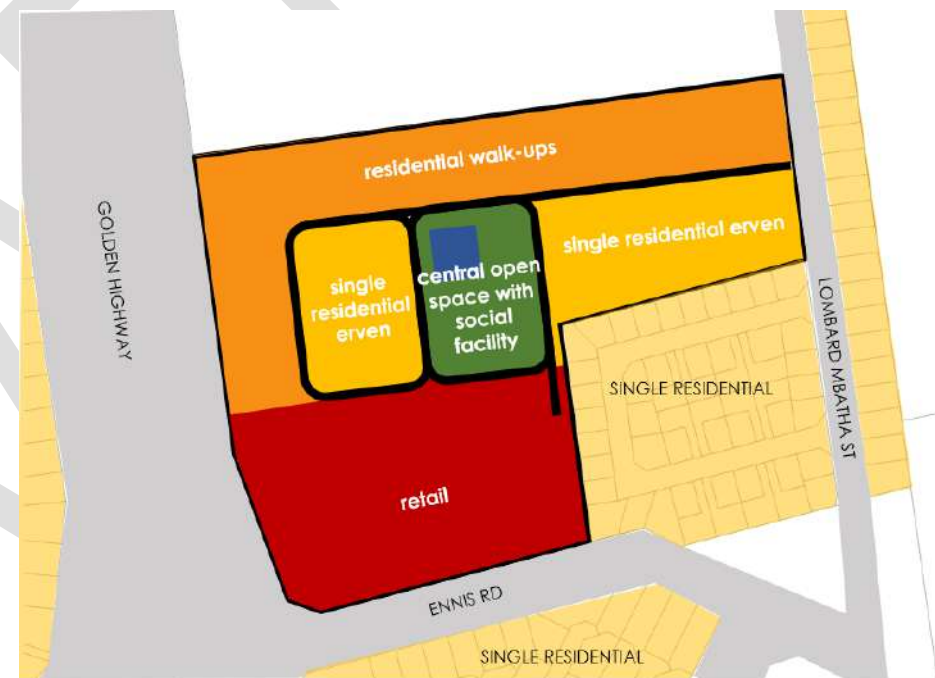


Figure 18: RESIDENTIAL TYPOLOGY AND PUBLIC SPACES

### 5.3.4 BUILT FORM AND SENSE OF PLACE ELEMENTS

Attention was given to the creation of a unique and positive sense of place for the development. This was done through the following:

- Buildings define the major east-west street and the social facility.
- A social facility and communal open space are placed in the centre of the development.

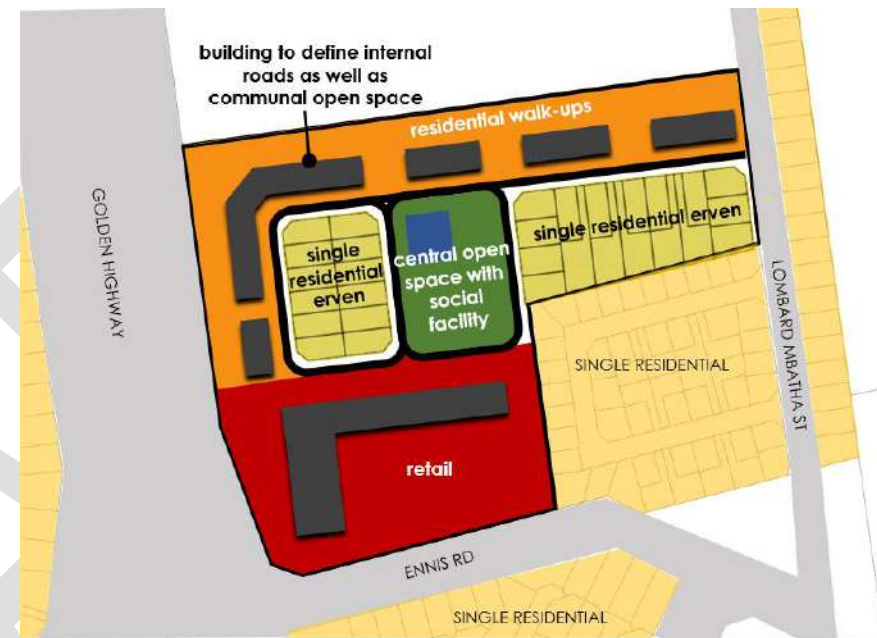


Figure 19: DESIGN CONCEPT SENSE OF PLACE ELEMENTS



## 6 CONCEPTUAL LAYOUT

The concept layout consists 25 single residential erven, one erf reserved for walk-ups, one erf for retail, one erf for a taxi facility and one erf for public open space and social facilities.

Table 7: CONCEPT LAYOUT

ERF NR	ERF SIZES	PROPOSED LAND USE
1-25	250-300m <sup>2</sup>	Single Residential
26	1.23 ha	Residential walk-ups
27	1.22 ha	Retail
28	0.25 ha	Public Open Space
29	0.06	Taxi Facility



Figure 20: CONCEPT LAYOUT



Figure 21: CONCEPT LAYOUT - LAND USE

## 7 LAND USE BUDGET

The land use budget refers to the amount of land reserved for each land use and the number of residential units that can be created.

### 7.1 LAND USE

The breakdown of land uses is contained in Table 8:

Table 8: LAND USE BUDGET

LAND USE	AREA	% OF TOTAL AREA	FLOOR AREA/UNITS
Residential walk-up flats	1.23	28.7	131
Single Residential erven	0.74	17.2	25
Retail	1.22	28.4	3915m <sup>2</sup>
Open Space and social facility	0.25	5.8	N/A
Taxi Facility	0.06	1.4	N/A
Streets	0.79	18.4	N/A
<b>TOTAL</b>	<b>4.3</b>	<b>100</b>	<b>156</b>

### 7.2 RESIDENTIAL YIELD

A total of approximately 156 dwelling units can be provided at an overall net density of  $\pm 80$  du/ha and an erf density (real density) of  $\pm 52$  du/ha.

Table 9: RESIDENTIAL YIELD PER ERF

ERF NUMBERS	AREA	NR OF UNITS	NET DENSITY
1-25	0.74	25	34
26	1.23	131	107
<b>TOTAL</b>	<b>1.97</b>	<b>156</b>	<b>80</b>

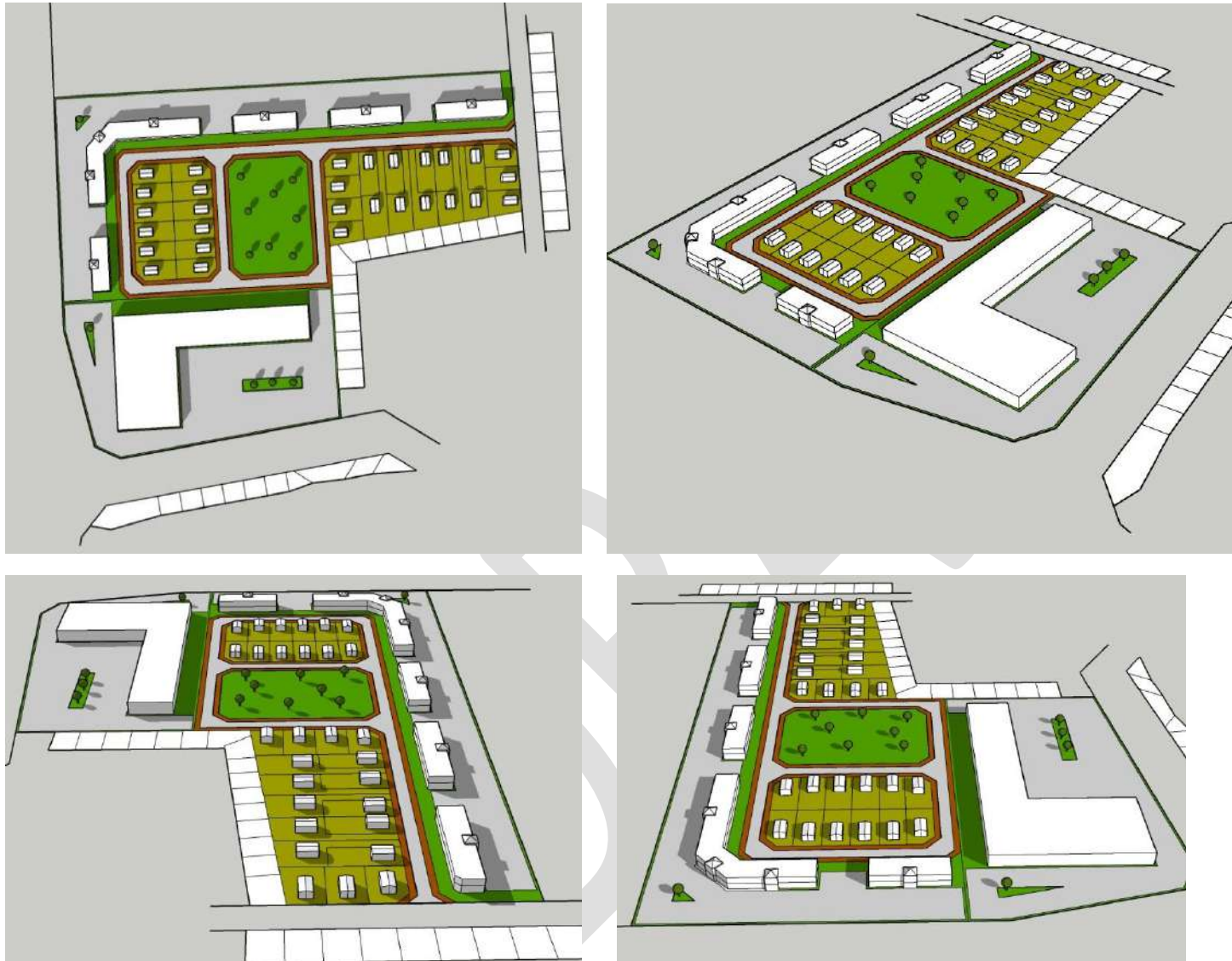


Figure 22: 3D-IMAGES

## 8 PLANNING PROCESSES

Currently the erf is zoned for residential, with a coverage of 60% and maximum height of 2 storeys. Given the proposed development, a rezoning will be applicable to accommodate the mix of typologies and land uses.

The following land use applications need to be submitted in terms of the Emfuleni Municipality Spatial Planning and Land Use Management By-laws, 2018.

- Rezoning in terms of Part 2 Section 38-43; and
- Subdivision in terms of Part 4 Section 51-58.

The following regulations apply:

### PART 2: AMENDMENT OF LAND USE SCHEME (REZONING) AND MATTERS RELATED THERETO:

- Section 38: Amendment of land use scheme application (Rezoning)
- Section 39: Decision and post-decision procedures – Amendment of Land Use Scheme
- Section 40: Correction of errors or omissions
- Section 41: Prohibition of a further application in certain circumstances
- Section 42: Contributions to be paid in respect of external engineering services and Open Spaces and Parks
- Section 43: Lapsing of rezoning and extension of validity periods

### PART 4: SUBDIVISION AND CONSOLIDATION OF AN ERF IN AN APPROVED TOWNSHIP AND THE SUBDIVISION AND/OR CONSOLIDATION OF ANY OTHER LAND:

- Section 51: Subdivision and/or consolidation of an erf/erven in an approved township
- Section 52: Cancellation and amendment of conditions/plan, endorsement of certain documents by Registrar and access

## 9 CONCLUSION

Erf 14540 Evaton West Ext 7 (Project I) is a vacant site zoned for residential. It is located within the built-up area of Evaton West surrounding by single residential development as well as a number of social facilities and public open spaces. It is earmarked as a medium density zone by the Municipal SDF which means that a maximum residential density of 60 units per hectare should be developed.

A number of options were explored for the development of the site. The selected option consists of 156 dwelling units made up of 131 dwelling units in walk-up flats and 25 erven of 250m<sup>2</sup>. The south-western portion of the site contains a retail development of 3 915 GLA as per the market study. The overall density on the erf is 52 du/ha.

A taxi facility is also proposed at the retail area, to ensure proper accessibility.

In order to proceed with development, a rezoning and a subdivision application in terms of the municipal SPLUMA by-laws have to be submitted.



**APPENDIX E-2**  
Layout Drawings: Options 1-4





# PROPOSED LAYOUT PLAN (DRAFT)

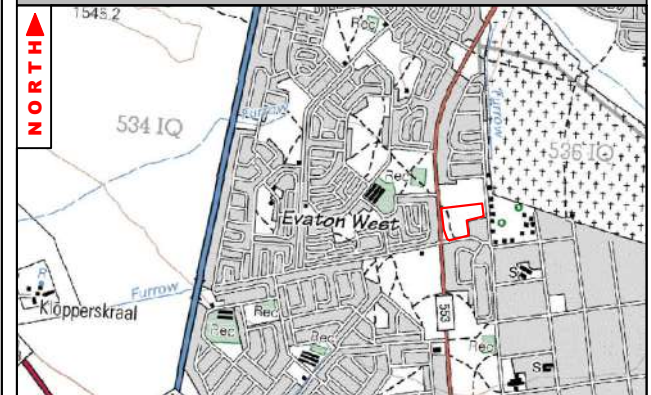
**SITUATED ON:** REMAINDER OF ERF 14540  
EVATON WEST EXTENSION 7

**LOCAL AUTHORITY:** EMFULENI LOCAL MUNICIPALITY

**PROVINCE:** GAUTENG

**SCALE:** 1: 1250

## LOCALITY



## NOTES

### 1. PROPOSED LAND USES:

LAND USE	AREA (HA)	DENSITY	UNITS
RESIDENTIAL (3 STOREYS)	3.5	136 du/ha	477
SOCIAL	240sqm	N/A	N/A
PUBLIC OPEN SPACE	0.3	N/A	N/A
RESIDENTIAL TOTAL			477

### 2. COORDINATE SYSTEM: WG 27

### 3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

## DETAILS

DATE: 2020-06-25  
DRAWN: RF MENTZ  
SCALE: 1: 1250 (A3)  
DRAWING NO: N/A



PLAN NO  
**1**

PROJECT NUMBER: MP- 1367

REUBEN MENTZ

URBAN PLANNER

CLIENT NAME

*[Signature]*

SIGNATURE

2020-06-25

DATE

SIGNATURE

DATE

NORTH

1: 1250

100m

100m

100m



# PROPOSED LAYOUT PLAN (DRAFT)

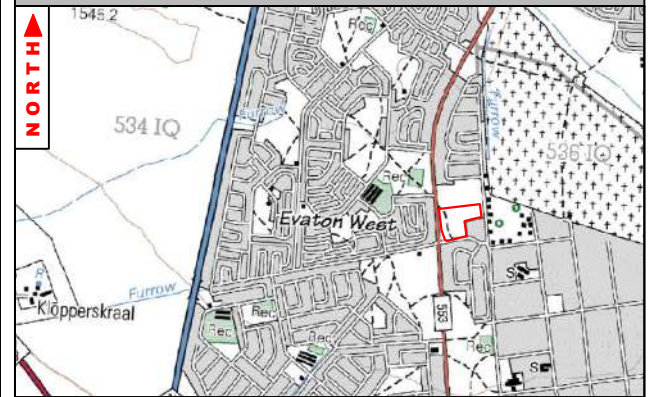
**SITUATED ON:** REMAINDER OF ERF 14540  
EVATON WEST EXTENSION 7

**LOCAL AUTHORITY:** EMFULENI LOCAL MUNICIPALITY

**PROVINCE:** GAUTENG

**SCALE:** 1: 1250

## LOCALITY



## NOTES

### 1. PROPOSED LAND USES:

LAND USE	AREA (HA)	DENSITY	UNITS
RESIDENTIAL (2 STOREYS)	1.9	93 du/ha	196
SINGLE RESIDENTIAL (250sqm)	1.4	38 du/ha	49
SOCIAL	450sqm	N/A	N/A
PUBLIC OPEN SPACE	0.16	N/A	N/A
<b>RESIDENTIAL TOTAL</b>			<b>245</b>

### 2. COORDINATE SYSTEM: WG 27

### 3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

## DETAILS

DATE: 2020-06-25  
DRAWN: RF MENTZ  
SCALE: 1: 1250 (A3)  
DRAWING NO: N/A



**PLAN NO**  
**1**

PROJECT NUMBER: MP- 1367

REUBEN MENTZ  
URBAN PLANNER

CLIENT NAME

*[Signature]*

SIGNATURE

2020-06-25

DATE

DATE

NORTH

1: 1250

100m

100m

100m



# PROPOSED LAYOUT PLAN (DRAFT)

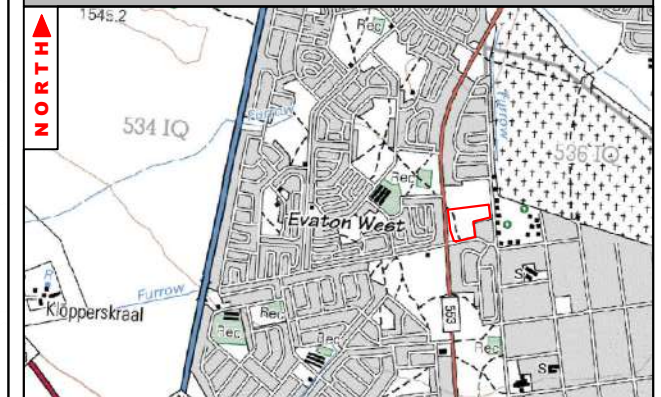
**SITUATED ON:** REMAINDER OF ERF 14540  
EVATON WEST EXTENSION 7

**LOCAL AUTHORITY:** EMFULENI LOCAL MUNICIPALITY

**PROVINCE:** GAUTENG

**SCALE:** 1: 1250

## LOCALITY



## NOTES

### 1. PROPOSED LAND USES:

LAND USE	AREA (HA)	DENSITY	UNITS
RESIDENTIAL (2 STOREYS)	2	173 du/ha	346
RETAIL	1.3	N/A	3900 GLA
SOCIAL	410sqm	N/A	N/A
PUBLIC OPEN SPACE	0.2	N/A	N/A
RESIDENTIAL TOTAL			346

### 2. COORDINATE SYSTEM: WG 27

### 3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

## DETAILS

DATE: 2020-06-25  
DRAWN: RF MENTZ  
SCALE: 1: 1250 (A3)  
DRAWING NO: N/A



PLAN NO  
**1**

PROJECT NUMBER: MP-1367

REUBEN MENTZ	
URBAN PLANNER	CLIENT NAME
SIGNATURE	SIGNATURE
2020-06-25	
DATE	DATE

NORTH

1: 1250

100m

100m

100m



# PROPOSED LAYOUT PLAN (DRAFT)

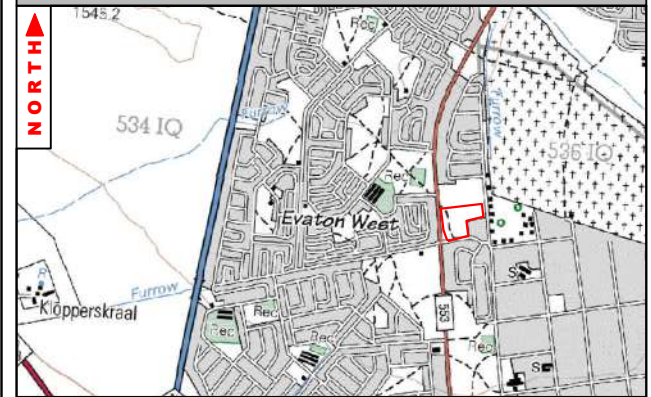
**SITUATED ON:** REMAINDER OF ERF 14540  
EVATON WEST EXTENSION 7

**LOCAL AUTHORITY:** EMFULENI LOCAL MUNICIPALITY

**PROVINCE:** GAUTENG

**SCALE:** 1: 1250

## LOCALITY



## NOTES

### 1. PROPOSED LAND USES:

LAND USE	AREA (HA)	DENSITY	UNITS
RESIDENTIAL (2 STOREYS)	1.2	173 du/ha	131
SINGLE RESIDENTIAL (250sqm)	0.7	38 du/ha	24
RETAIL	1.3	N/A	3900 GLA
SOCIAL	670sqm	N/A	N/A
PUBLIC OPEN SPACE	0.2	N/A	N/A
<b>RESIDENTIAL TOTAL</b>			<b>346</b>

### 2. COORDINATE SYSTEM: WG 27

### 3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

## DETAILS

DATE: 2020-06-25  
DRAWN: RF MENTZ  
SCALE: 1: 1250 (A3)  
DRAWING NO: N/A



**PLAN NO**  
**1**

PROJECT NUMBER: MP- 1367

REUBEN MENTZ	
URBAN PLANNER	CLIENT NAME
SIGNATURE	SIGNATURE
2020-06-25	
DATE	DATE

NORTH

1: 1250

100m

100m

100m



# APPENDIX E-3

## Preferred Layout





# PROPOSED LAYOUT PLAN (DRAFT)

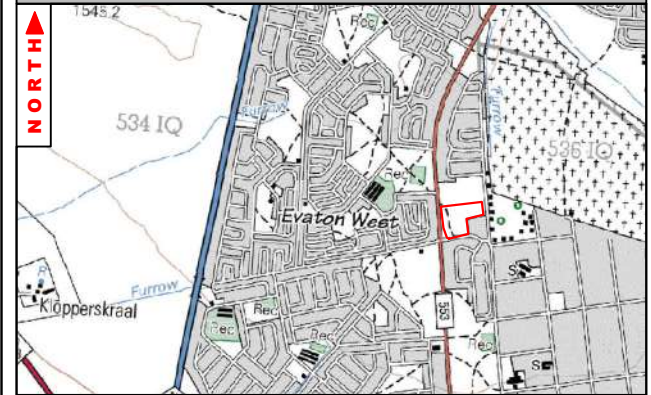
**SITUATED ON:** REMAINDER OF ERF 14540  
EVATON WEST EXTENSION 7

**LOCAL AUTHORITY:** EMFULENI LOCAL MUNICIPALITY

**PROVINCE:** GAUTENG

**SCALE:** 1: 1250

## LOCALITY



## NOTES

### 1. PROPOSED LAND USES:

LAND USE	AREA (HA)	DENSITY	UNITS
RESIDENTIAL (2 STOREYS)	1.2	173 du/ha	131
SINGLE RESIDENTIAL (250sqm)	0.7	38 du/ha	24
RETAIL	1.2	N/A	3630 GLA
SOCIAL	670sqm	N/A	N/A
PUBLIC OPEN SPACE	0.2	N/A	N/A
TAXI FACILITY	622sqm	N/A	N/A
<b>RESIDENTIAL TOTAL</b>			<b>346</b>

### 2. COORDINATE SYSTEM: WG 27

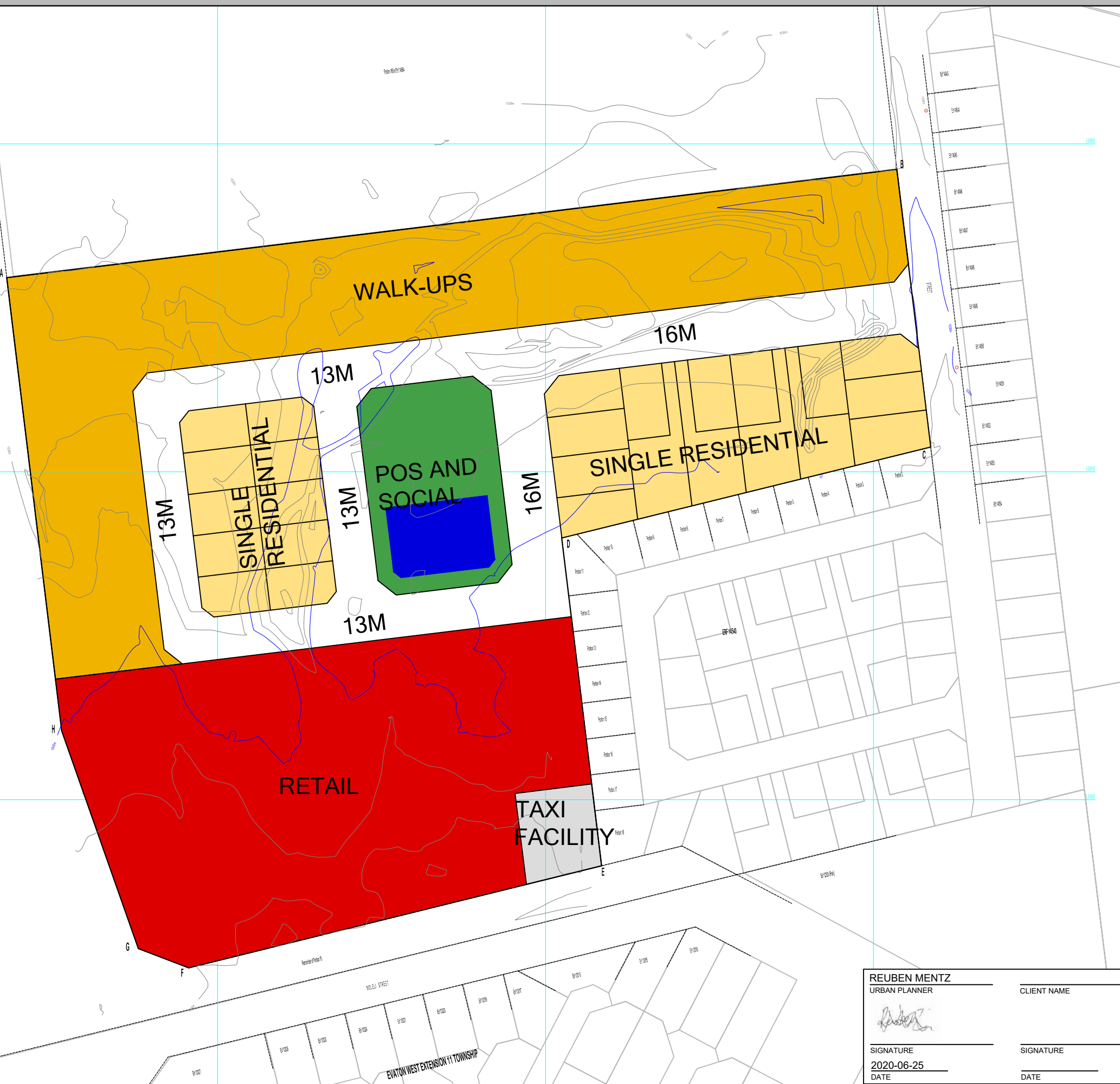
### 3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

## DETAILS

DATE: 2021-02-22  
DRAWN: RF MENTZ  
SCALE: 1: 1250 (A3)  
DRAWING NO: N/A

PROJECT NUMBER: MP- 1367

PLAN NO  
**1**



REUBEN MENTZ URBAN PLANNER		CLIENT NAME
		SIGNATURE
2020-06-25		DATE
DATE		DATE

# **APPENDIX F**

## GDARD Communication





63 Wessel Road, Rivonia, 2128 PO Box 2597, Rivonia, 2128 South Africa  
 Tel: +27 (0) 11 803 5726 Fax: +27 (0) 11 803 5745 Web: www.gcs-sa.biz

## Meeting Minutes

<b>Subject</b>	Pre-application Meeting for Gauteng Rapid Land Release Programme (GRLRP) - Unitas Park - Extension 16 and Evaton West - Project F, G, H and I, Gauteng Province
<b>Date</b>	19 August 2020
<b>Time</b>	10h00
<b>Attendance</b>	Dan Motaung (DM) (Gauteng Department of Agriculture and Rural Development) Boitshoko Buthelezi (BB) (Phumaf Holdings) Ngoni Gandiwa (NG) (Phumaf Holdings) Sikelela Mnguni (SM) (Phumaf Holdings) Gerda Bothma (GB) - GCS Water & Environmental Consultants Lehlogonolo Mashego (LM) - GCS Water & Environmental Consultants
<b>Apologies</b>	None

### 1. Introduction and Welcome

- GB welcomed all present and introduced the meeting as the Pre-application Meeting.
- A disclaimer was expressed of the session being recorded and that the meeting outcomes will further be shared (see Appendix 1).
- All attendees were requested to introduce themselves for the purpose of all parties being acquainted with the stakeholders involved and present.

### 2. Attendance Register and Apologies

- No apologies were received.

### 3. Discussion

- *Unitas Park - Extension 16*
  - Dan Motaung (DM) indicated that it is critical to include a Traffic Impact Assessment (TIA) and Geotechnical Assessment (GA) in addition to the proposed assessments. These assessments are also to be submitted to the department. It was since confirmed in the meeting that the assessments have been covered for the respective sites under the Engineering Assessments conducted and this will further be incorporated into the environmental application accordingly.
  - A great issue faced within Gauteng Province are the issues associated with waste (solid and liquid) and this is to be accounted for in the proposed developments. Maintenance and the available capacity needs to evidently allow for connections and

efficient connections into the municipal grid and to be able to handle the increase capacity.

- Ngoni Gandiwa (NG) indicated that the current proposal especially regarding this site is to make provision for a package plant to deal with the sewage issue and the expected flow will be large. Any associated impacts relevant to the Environmental Impact Assessment (EIA) are still to be verified at this stage.
- *Evaton West - Project F*
  - Include the applicable TIA and GA - DM
  - DM indicated that considering that there is an alleged drainage line traversing the site (natural drainage line) this will require a Storm Water Management Plan (SWMP). This needs to be submitted and drafted by a qualified Engineer or professional. The impacts associated with lack of storm water are vast in lower income communities, this is to be curbed and accounted for accordingly.
- *Evaton West - Project G*
  - Include the applicable TIA and GA - DM
  - DM noted that the Critical Biodiversity Areas (CBA) data is not to be omitted without further verifying with a qualifying Specialist. The site itself is evidently degraded and transformed and would not necessarily warrant any environmental protection. To this nature a Land-use application/enquiry detailing the site observations and sensitivities must be submitted to have the department confirm and accept the approach.
- *Evaton West - Project H*
  - Include the applicable TIA and GA - DM
  - DM noted again that the CBA data is not to be omitted without further verifying with a qualifying Specialist. The site itself is evidently degraded and transformed and would not necessarily warrant any environmental protection. To this nature a Land-use application/enquiry detailing the site observations and sensitivities must be submitted to have the department confirm and accept the approach.
- *Evaton West - Project I*
  - Include the applicable TIA and GA - DM
  - DM indicated that considering that there is an alleged drainage line traversing the site (natural drainage line) this will require a SWMP. DM indicated that the SWMP submitted to the municipality and to the department serve different purposes and this needs to be taken into consideration when submitting the respective reports.
- *Public Participation*
  - The intent of carrying out the public participation process (PPP) is in line with Chapter 6 of the National Environmental Management Act, 1998 (NEMA) (Act No. 107 of 1998) as amended and the Covid-19 response guidelines as issues on 05 June 2020. We have

since moved to Level 2 and as such, await on the updated guidelines to inform any changes to the way the PPP will be conducted.

- The proposed PPP will include virtual activities as far as possible.
- The proximity of the Evaton West sites will potentially work in the collectives' favour if a combined PPP is conducted and a separate process initiated for the Unitas Park site.
- Should a combined approach be followed then all interested and affected parties (I&APs) are to be included and ensure that the message gets through to all I&APs. This needs to be managed carefully whilst ensuring that it is efficiently carried out in accordance with the NEMA regulations. - DM
- Suggestion with regards to project announcement is not to start too early as the community's response, cannot be pre-empted should this be done. - DM

#### **4. General**

- Where there are wetlands and areas of sensitivity on site, the necessary buffer zones are to be applied. These need to be included in the Specialist Assessments - DM.
- Low-cost housing generally does not account for spacing and greening or functional open areas. This is a recommendation was provided by DM and it was since confirmed in the meeting that this is an added component proposed to be included in support of the developments. - DM

#### **5. Way Forward and Closure**

Action	Role	Date
Internal project team to regroup and pave the response from the meeting way	GCS + Phumaf	20 August 2020
Meeting minutes to be distributed accordingly	GCS	24 August 2020
Submit PPP plan for approval	GCS	28 August 2020
Combination approach of PPP must be submitted to department for approval	GCS	28 August 2020
Submit a Land-use Application/Enquiry	GCS	28 August 2020

Meeting was closed off at 11:10, the meeting outcomes will be shared accordingly, so comments and input may be shared for **three (3) days** from the date of receipt.

## Appendix 1 - Meeting Recording

Link - <https://web.microsoftstream.com/video/854ec04d-80a8-4e17-94a8-4dc21707298d>



From: **Lehlo Mashego** <Lehlo@gcs-sa.biz>  
To: **MOTAUNG, DAN (GDARD)** <Dan.Motaung@gauteng.gov.za>  
CC: **Gerda Bothma** <gerdab@gcs-sa.biz>  
Subject: RE: Pre-Application Meeting Minutes  
Date: 01.09.2020 12:01:26 (+0200)

Good day Dan

Noted with thanks.

Kind regards  
Lehlogonolo Mashego

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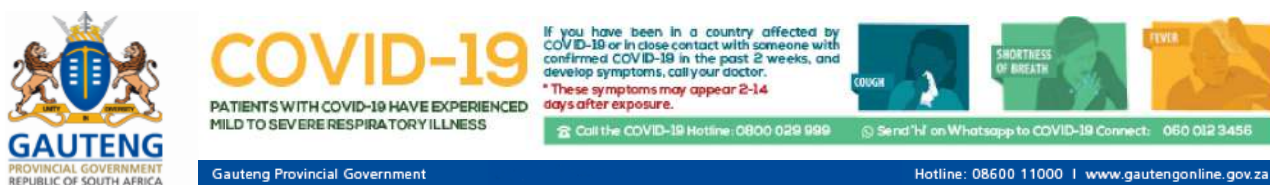
**From:** MOTAUNG, DAN (GDARD) <Dan.Motaung@gauteng.gov.za>  
**Sent:** Monday, 31 August 2020 11:14 AM  
**To:** Lehlo Mashego <lehlo@gcs-sa.biz>  
**Cc:** Gerda Bothma <gerdab@gcs-sa.biz>  
**Subject:** RE: Pre-Application Meeting Minutes

Good morning,

I hereby confirm that the contents of the minutes are a true reflection of the meeting held on 19 August 2020.

Regards

Dan



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The Gauteng Provincial Government does not take responsibility for Gauteng Provincial Government users' personal views. Gauteng Provincial Government services available online at [www.gauteng.gov.za](http://www.gauteng.gov.za) - The information contained in this communication from [dan.motaung@gauteng.gov.za](mailto:dan.motaung@gauteng.gov.za) sent at 2020-08-31 11:30:33 is confidential and may be legally privileged. It is intended solely for use by [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz) and others authorized to receive it. If you are not [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz) you are hereby notified that any disclosure, copying, distribution or taking action in reliance of the contents of this information is strictly prohibited and may be unlawful.

---

**From:** Lehlo Mashego <[lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)>  
**Sent:** Monday, 31 August 2020 09:56  
**To:** MOTAUNG, DAN (GDARD) <[Dan.Motaung@gauteng.gov.za](mailto:Dan.Motaung@gauteng.gov.za)>  
**Cc:** Gerda Bothma <[gerdab@gcs-sa.biz](mailto:gerdab@gcs-sa.biz)>  
**Subject:** Pre-Application Meeting Minutes

Good morning Dan

Following the pre-application meeting held on Wednesday, 19 August 2020, please see attached are the meeting outcomes for your comment and input.

Kindly have the comments sent in by Thursday midday and feel free to contact us should you need any additional information.

Kind regards  
Lehlogonolo Mashego

**Lehlo Mashego**  
Environmental Liaison Officer



**Tel** +27 (0) 11 803  
5726  
**Fax** +27 (0) 11 803  
5745  
**Cell**  
**Web** [www.gcs-sa.biz](http://www.gcs-sa.biz)  
**Address** 63 Wessel  
Road, Rivonia,

**Established  
in 1987**

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**GCS Water and Environmental Consultants (Pty) Ltd**  
 P.O. Box 2597  
 RIVONIA  
 2128

**Tel No:** 011 803 5726  
**Fax No:** 011 803 5745  
**E-mail:** [gerdab@gcs-sa.biz](mailto:gerdab@gcs-sa.biz)

Dear Ms. Gerda Bothma

**COMMENTS ON THE DRAFT BASIC ASSESSMENT REPORT: THE PROPOSED SOCIAL HOUSING DEVELOPMENT ON ERF 14540 EVATON WEST EXTENSION 7, EMFULENI LOCAL MUNICIPALITY.**

Regarding the above-mentioned draft basic assessment report received by this Department on 12 February 2021, herewith receive the comments from the Department.

**1. Description of the site**

The proposal entails development of social housing on an area that measures approximately 4, 32 hectares in extent. There are existing informal housing structures and businesses on-the site. The site does not display any environmental sensitivities according to the Departmental GIS and Gauteng Conservation Plan version 3.3. The site falls within an Environmental Management Zone 1 of the Gauteng Provincial Environment Management Framework 2015.

**2. Listed activities applied for**

The following listed activities have been applied for in the application form-

Activity No and description	Description of the development related to the listed activity
<p><b>Listing Notice 1 activity 14</b>            The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres</p>	<p>The Proposed development will include a filling station but will be applicable only for Alternative option 3 and 4.</p>
<p><b>Listing Notice 1 activity 27-</b>  <i>"The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for-</i>            i) The undertaking of a linear activity; or</p>	<p><i>The proposed development is approximately 4.3 hectares in extent, but the site is already transformed</i></p>

<p>ii) Maintenance purposes undertaken in accordance with a maintenance management plan.</p>	
<p><b>Listing Notice 3 activity 12-</b> The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan <b>c. Gauteng</b> iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>	<p><i>The proposed development is approximately 4.3 hectares in extent, but the site is already transformed</i>  <i>The site is currently zoned Public Open Space</i></p>
<p><b>Listing Notice 1 Activity 19</b> The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.</p>	<p>There is a potential watercourse on site, which maybe be affected by the development proposal.</p>
<p><b>Listing Notice 3 activity 10</b> (except this Activity which is not in the application form) The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres. (c) Gauteng <b>c. Gauteng</b> ii. Inside urban areas: (aa) Areas zoned for use as public open space;</p>	<p>The Propose development will include a filling station but will be applicable only for Alternative option 3 and 4.  The site is currently zoned Public Open Space</p>
<p><b>Listing Notice 3 activity 4</b> The development of a road wider than 4 metres with a reserve less than 13, 5 metres. <b>c. Gauteng</b>  (i) Sites zoned for conservation use or public open space or equivalent zoning.</p>	<p>The road will vary from 13 to 16 Metre  The site is currently zoned Public Open Space</p>
<p><b>Listing Notice 3 activity 15</b> The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan <b>c. Gauteng</b> (i) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>	<p>The proposed development is approximately 4.3 hectares in extent, but the site is already transformed  The site is currently zoned Public Open Space</p>

**N.B Please note that Activity 19 Listing Notice 1 as highlighted In the application form is not included in the draft basic assessment report. Activity 30 of Listing Notice 1 and Activity 10 of Listing Notice 3 are included in the draft basic assessment report but not in the application form. The abovementioned issues must be corrected, either the application form must be amended to reflect the all activities applied for and the same activities must be reflected in the draft report.**



### **3. Specialist studies**

There are no environmental sensitivities on site according to Departmental GIS and C-plan version 3.3, however, it is indicated on the application form that there is a potential watercourse on site, therefore ecological studies must be undertaken by the suitable qualified specialist in order to detect if there is an actual watercourse on site and should form part of the final Basic Assessment Report. All other specialist studies included in the draft report must also form part of the final report.

### **4. Services required**

Water and sewer will be sourced from the Local Municipality and electricity from Eskom. Both the Local Municipality and Eskom must comment on the proposed development.

### **5. Assessment of alternatives**

Four alternative options outlined in the draft report is noted, however it must be thoroughly assessed in such a way that it must inform decision making process on the final BAR.

### **6. Maps, layout plans, services route positioning**

A color layout plans showing all four (4) alternative options (in an A3 page) indicating the position of all the proposed activities on site with a legend clearly linked to activities components must be included in the final report. It should be clear and legible.

### **7. Public Participation Process**

The Public Participation Process must be done in accordance to the minimum requirements of EIA Regulations 2014. Stakeholders must be consulted through delivery of draft amendment report, but electronic methods of delivery of reports are encouraged. The Department is encouraged that the Public Participation Process will include virtual activities as far as possible as per the minutes of pre-consultation meeting. Note that all comments from registered interested and affected parties must be incorporated on the comments and response report to be attached in the final report and must be adequately addressed. Please note that the application may be prejudiced by not addressing issues raised by the registered interested and affected parties and all aspects raised in this letter.

Proof of correspondence (site notice, newspaper advertisement, email, fax, delivery etc.) with stakeholders must be included in the final report. Should you be unable to submit comments, proof of attempts that were made to obtain comments must be submitted to this Department. Any other information that needs to be added that will benefit the decision-making process must be included in the final report.

### **8. Other aspects to be considered**

- a) The proposed development includes a filling station which is applicable only for alternative options 3 and 4. Therefore it should be thoroughly assessed, if not, a separate application for a filling station must be submitted to this Department.
- b) A zoning certificate from the relevant municipality must also be attached to the final BAR.
- c) According to the minutes of the pre-consultation meeting (19 August 2020), the proposal will make provision for a package sewage plant. The proposed sewage package plant must be commented on by Ekurhuleni Metropolitan Municipality and the Department of Human Settlement, Water and Sanitation (DHSWS).



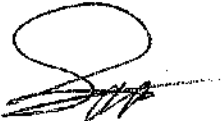
- d) The proposal for the new storm water systems to be discharged to the nearest natural watercourses must also be commented on by DHSWS.
- e) A detailed storm water management plan for the proposed site (including storm water management measures to be implemented temporarily during the construction phase and permanent measures to be installed for the operational phase) must be developed by a suitably qualified engineer and approved by the Local Municipality.
- f) Principles of sustainable development will need to be incorporated into the proposed development during both its construction phase and the operational phase. Aspects such as green building techniques, energy (renewable energy proposal is commended) and water efficiency measures as well as waste minimization techniques, needs attention.

#### 9. Environmental Management Programme (EMPr)

EMPr is not attached in the draft report therefore it must be included in the final Report. The EMPr must comply with the content requirements as stipulated in Appendix 4 of the Environmental Impact Assessment (EIA) Regulations, 2014. The EMPr needs to address impacts that may arise as a result of the proposed activity and must be practical, site specific and easily enforceable. It is a binding document and all the conditions in it should be enforceable, it is therefore important that words that do not emphasise enforcement be avoided.

If you have any queries regarding the contents of this letter, please contact the official of the Department using any of the above indicated contact details.

Yours faithfully



**Mr. Tendani Rambuda**

**Control Environmental Officer Grade B: Impact Management**

Date: 12 / 03 / 2021



**APPENDIX G**  
DEFF Online Screening Report



**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION OR  
FOR A PART TWO AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION  
AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE  
ENVIRONMENTAL SENSITIVITY**

**EIA Reference number:** Not yet assigned

**Project name:** Phumaf GRLRP

**Project title:** Evaton West I Basic Assessment

**Date screening report generated:** 12/05/2020 16:11:40

**Applicant:** Department of Human Settlements

**Compiler:** Georgina Wilson

**Compiler signature:**

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## Table of Contents

Proposed Project Location .....	3
Orientation map 1: General location .....	3
Map of proposed site and relevant area(s) .....	4
Cadastral details of the proposed site .....	4
Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area .....	4
Environmental Management Frameworks relevant to the application .....	5
Environmental screening results and assessment outcomes .....	5
Relevant development incentives, restrictions, exclusions or prohibitions .....	5
Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones.....	7
Proposed Development Area Environmental Sensitivity.....	7
Specialist assessments identified.....	8
Results of the environmental sensitivity of the proposed area .....	10
MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY .....	10
MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY.....	11
MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY .....	12
MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY .....	13
MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY .....	14
MAP OF RELATIVE DEFENCE THEME SENSITIVITY.....	15
MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY .....	16

# Proposed Project Location

## Orientation map 1: General location



## Map of proposed site and relevant area(s)



## Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	EVATON WEST	14540	3	26°30'52.25S	27°49'42.93E	Erven
2	EVATON WEST	14540	2	26°30'52.12S	27°49'43.36E	Erven
3	EVATON WEST	14564	169	26°30'48.02S	27°49'37.88E	Erven
4	RIET FONTEIN ALIAS KLOPPERSKRAAL	534	0	26°31'9.69S	27°47'48.62E	Farm
5	RIET FONTEIN ALIAS KLOPPERSKRAAL	534	15	26°30'35.68S	27°49'33E	Farm Portion
6	RIET FONTEIN ALIAS KLOPPERSKRAAL	534	36	26°30'42.43S	27°49'36.92E	Farm Portion

Development footprint<sup>1</sup> vertices:

No development footprint(s) specified.

## Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
----	---------------------	----------------	--------------------------	-------------------------------------

<sup>1</sup> "development footprint", means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

1	14/12/16/3/3/2/753	Solar PV	Approved	29.9
---	--------------------	----------	----------	------

## Environmental Management Frameworks relevant to the application



<b>Environmental Management Framework</b>	<b>LINK</b>
Gauteng EMF	<a href="https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_1,_Zone_2,_Zone_3,_Zone_4,_Zone_5.pdf">https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_1, Zone_2, Zone_3, Zone_4, Zone_5.pdf</a>

## Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: Transformation of land | From agriculture or afforestation | Transformation of land - From agriculture or afforestation.

### Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

<b>Incentive, restriction</b>	<b>Implication</b>
-------------------------------	--------------------



on or prohibition	
Strategic Transmission Corridor-Central corridor	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR_350_of_13_April_2017.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR_350_of_13_April_2017.pdf</a>
Gauteng EMF-Urban development zone 1	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone_1.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone_1.pdf</a>
Air Quality-Vaal Triangle Airshed Priority Area	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Final_VTAPA_AQMP_20090408_-15_April_2009.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Final_VTAPA_AQMP_20090408_-15_April_2009.pdf</a>

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones

**Project Location: Phumaf GRLRP**



**Proposed Development Area Environmental Sensitivity**

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Animal Species Theme			X	

Aquatic Biodiversity Theme				X
Civil Aviation Theme			X	
Plant Species Theme			X	
Defence Theme				X
Terrestrial Biodiversity Theme	X			

### Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

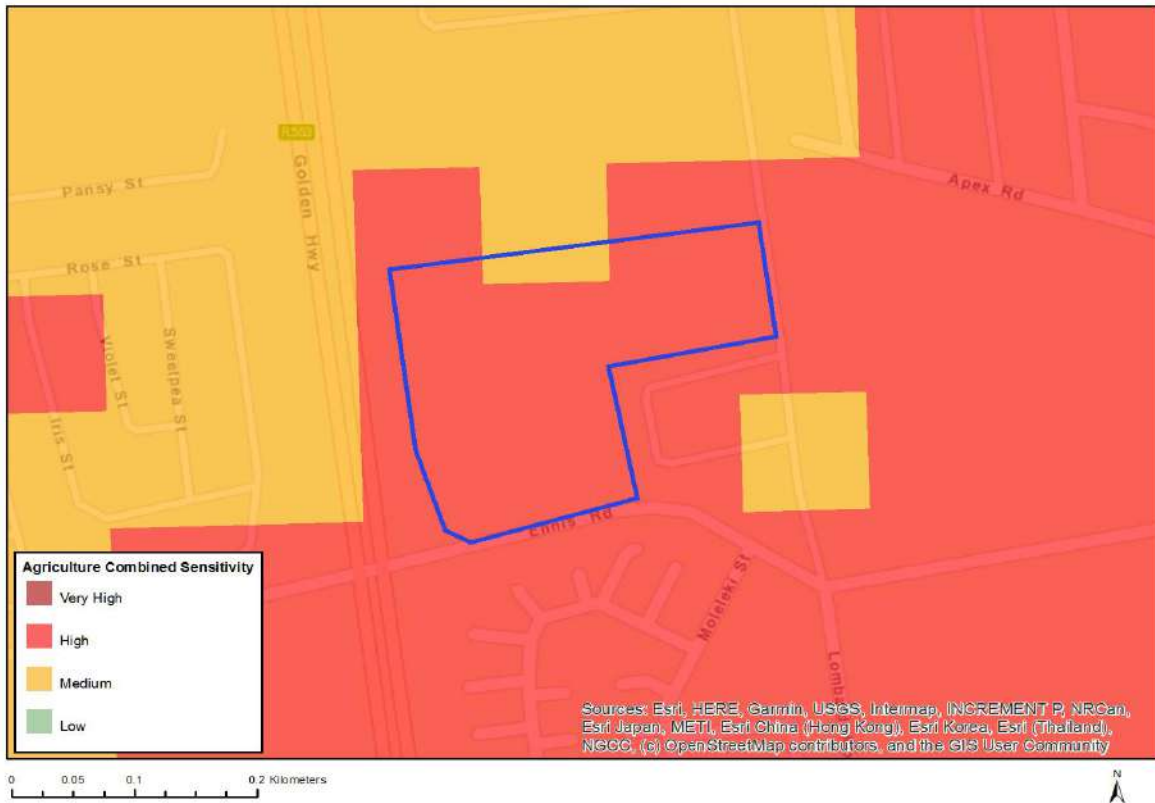
<b>N o</b>	<b>Specialist assessment</b>	<b>Assessment Protocol</b>
1	Agricultural Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Agriculture Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Agriculture Assessment Protocols.pdf</a>
2	Landscape/Visual Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf</a>
3	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf</a>
4	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted General Requirement Assessment Protocols.pdf</a>
5	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Terrestrial Biodiversity Assessment Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Terrestrial Biodiversity Assessment Protocols.pdf</a>
6	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Aquatic Biodiversity Assessment.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted Aquatic Biodiversity Assessment.pdf</a>
7	Hydrology	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols</a>

	Assessment	<a href="#">/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
8	Socio-Economic Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
9	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
10	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>

## Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

### MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

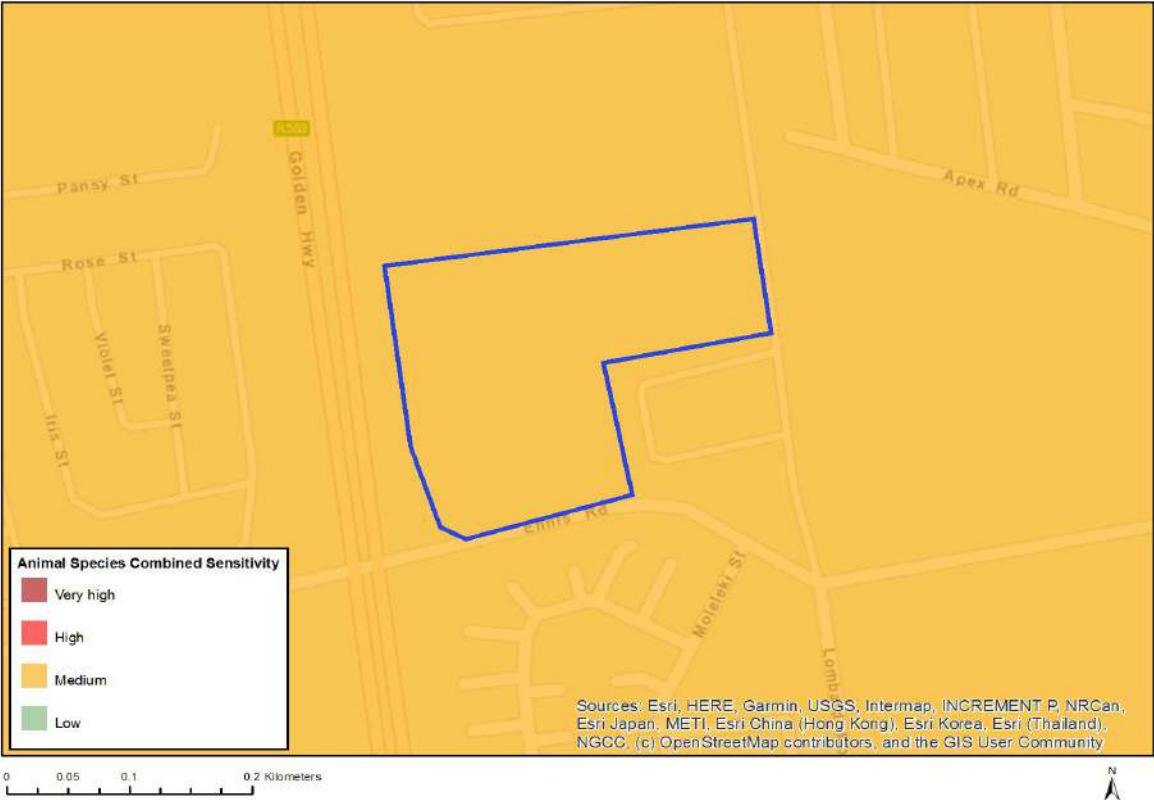


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

#### Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Insecta-Lepidochrysops praeterita
Medium	Insecta-Aloeides dentatis dentatis
Medium	Insecta-Orachrysops mijburghi



## MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

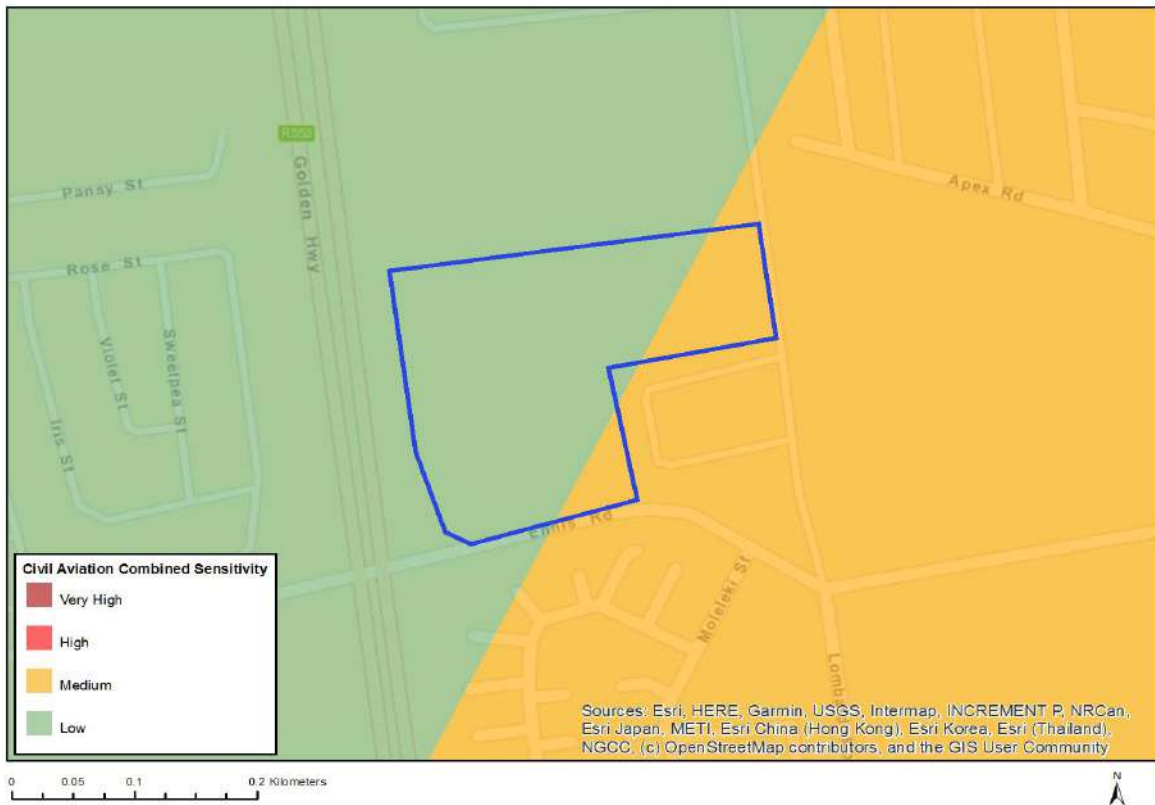


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

## MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

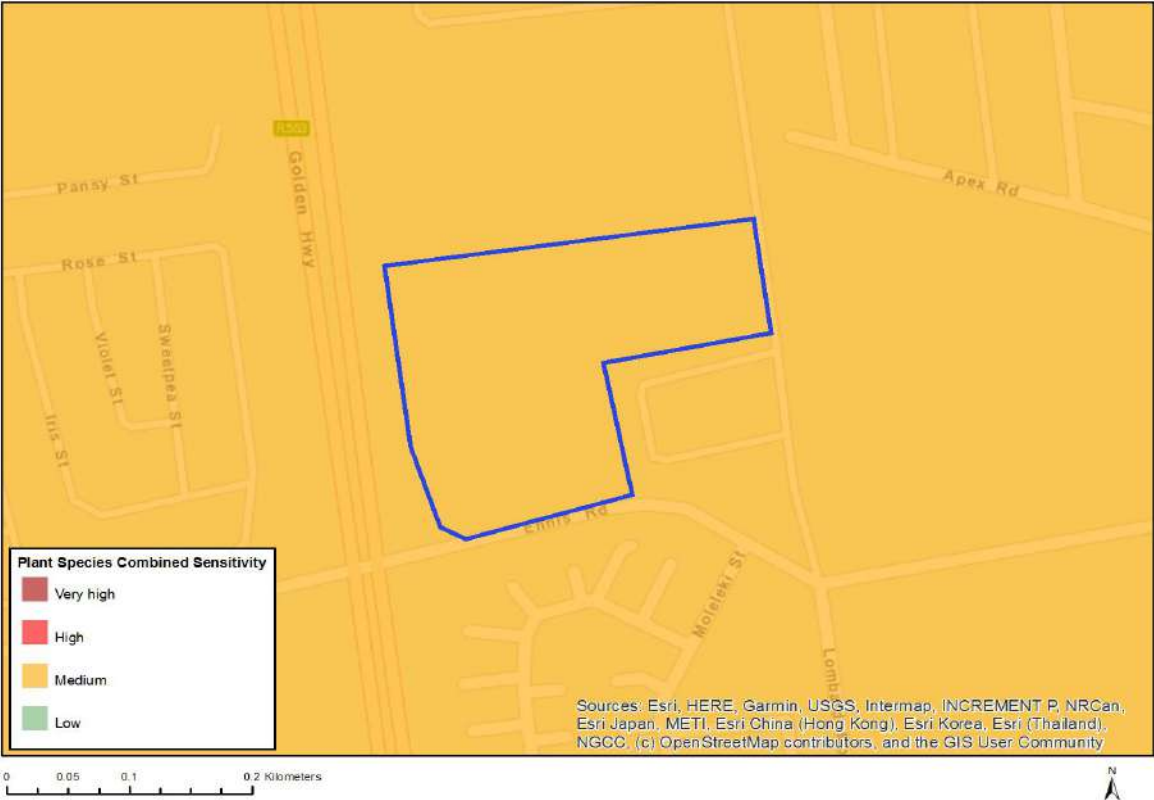


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Sensitive species 647
Medium	Khadia beswickii

## MAP OF RELATIVE DEFENCE THEME SENSITIVITY

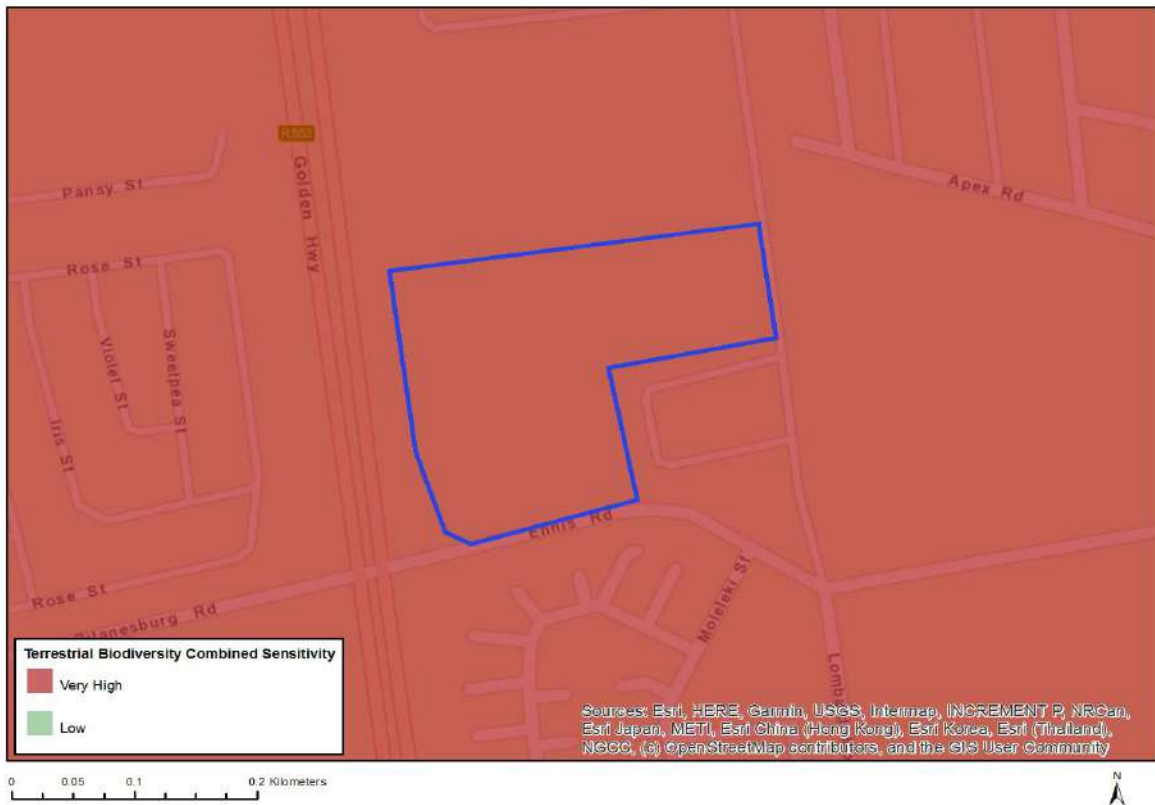


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

## MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

### Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem

# APPENDIX H

## Public Participation





**APPENDIX H-1**  
Database of Interested and Affected Parties



Title	Last name	First name	Organisation	Position
<b>Authorities</b>				
			<b>Department of Environment, Forestry and Fisheries (DEFF)</b>	
Mr	Mahlangu	Lucas	Department of Environment, Forestry and Fisheries (DEFF)	
Ms	Masina	Litsoane	Department of Environment, Forestry and Fisheries (DEFF)	
	Administration		Department of Environment, Forestry and Fisheries (DEFF)	Administration and Support
			<b>Department of Human Settlements, Water and Sanitation</b>	
Mr	Khathutshelo	Mudau	Department of Human Settlements, Water and Sanitation	Environmental Officer - Sedibeng Region
			<b>Gauteng Department of Agriculture and Rural Development</b>	
Mr	Dan	Motaung	Gauteng Department of Agriculture and Rural Development	Case Officer
Ms	Malesela	Sehona	Gauteng Department of Agriculture and Rural Development	Administration and Support
Ms	Thabisile	Nkosi	Gauteng Department of Agriculture and Rural Development	Environmental Officer
	Tebogo	Leku	Gauteng Department of Agriculture and Rural Development	Environmental Officer
	Aristotelis	Kapsosiders	Gauteng Department of Agriculture and Rural Development	Environmental Officer
			<b>Department of Roads and Transport</b>	
			Department of Roads and Transport	
			<b>Sedibeng District Municipality</b>	
Mr	Stanley	Khanyile	Sedibeng District Municipality	Municipal Manager
	Maisaka	Mtshali	Sedibeng District Municipality	MM - Personal Assistant
	Administration		Sedibeng District Municipality	
Ms	Mapuleng	Mateane	Sedibeng District Municipality - Office of the Executive Mayor	Personal Assistant
Mr	Sipho	Nhlengethwa	Sedibeng District Municipality - Office of the Executive Mayor	Assistant Manager: Ntirhisano Service Delivery Programmes
	Archie	Mokonane	Sedibeng District Municipality - Office of the Executive Mayor	Director
	Motshedisi	Motsoari	Sedibeng District Municipality - Transport Infrastructure, Development and Environment	Office Manager
			Sedibeng District Municipality	Environmental Officer
Ms	Betty	Peterson	Sedibeng District Municipality - Municipal Manager	Personal Assistant
	Refilwe	Mhlwatika	Sedibeng District Municipality - Municipal Manager	Director - Legal
	Marriam	Mosiane	Sedibeng District Municipality - Spatial Development and Economic Development	Office Manager
	Khulu	Mbongo	Sedibeng District Municipality - Spatial Development and Economic Development	Director: Local Economic Development
	Basseyy	Ramagaga	Sedibeng District Municipality - Spatial Development and Economic Development	Manager: IDP (Intergrated Development Planning)
	Sello	Pitso	Sedibeng District Municipality - Spatial Development and Economic Development	Manager: Housing
	Kate	Plank	Sedibeng District Municipality - Office of the Chief Whip of Council	Community Liaison
			<b>Emfuleni Local Municipality</b>	
Ms	Nomsa	Mooi	Emfuleni Local Municipality	Ward Councillor
Ms	Mmatshupo	Mathumbo	Emfuleni Local Municipality	Executive Secretary to the Speaker
Mr	Oupa	Nkoane	Emfuleni Local Municipality	Municipal Manager
	Amanda	van Onselen	Emfuleni Local Municipality	MM - Personal Assistant
	Lekgotla	Motapane	Emfuleni Local Municipality	Town Planning Manager
	Moratuwa	Mthimkhulu	Emfuleni Local Municipality	
	Hennie	Pelser	Emfuleni Local Municipality	
	Anton	Mojapelo	Emfuleni Local Municipality	
	Administration		Emfuleni Local Municipality	
			Emfuleni Local Municipality - Social Development	
Cllr	Nomvula	Thulo	Emfuleni Local Municipality - Mayorial Committee	MMC: Environmental Management and Planning
Cllr	Dimakatso Maria	Malisa	Emfuleni Local Municipality - Mayorial Committee	MMC: Health and Social Development
Cllr	Khethiwe	Ntombela	Emfuleni Local Municipality - Mayorial Committee	MMC: Infrastructure Planning, Development and Asset Management (IPAM)

Cllr	Mokete Edwin	Kele	Emfuleni Local Municipality - Mayorial Committee	MMC: Human Settlement
Cllr	Pius	Maseko	Emfuleni Local Municipality - Mayorial Committee	MMC: Agriculture, Local Economic Development, Development Planning and Tourism
Cllr	Thembile Samson	Nquba	Emfuleni Local Municipality - Mayorial Committee	MMC: Basic Services
<b>South African Heritage Resources Agency (SAHRA)</b>				
Ms	Khumalo	Nokukhanya	South African Heritage Resources Agency (SAHRA)	
Ms	Natasha	Higgitt	South African Heritage Resources Agency (SAHRA)	
	Leomile	Mofutsanyana	South African Heritage Resources Agency (SAHRA)	
<b>Business Forum</b>				
Mr	Paul	Mosedi	Sedibeng Business Forum	
<b>NGOs/ CBOs/ Parastatals</b>				
<b>Libraries (Public Places for review of documents)</b>				
			Evaton Community Library	
			Zone 7 Library	
			Vereeniging Public Library	
			Vereeniging Public Library	Senior Librarian
			Vereeniging Public Library	Principal Librarian
			Vanderbijlpark Public Library	
			Unit 13 Community Library	
			Sebokeng Public Library	
<b>Media</b>				

**APPENDIX H-2**  
Newspaper Advertisement





**NOTIFICATION OF A BASIC ASSESSMENT AUTHORISATION APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR, EVATON WEST PROJECT F AND I, GAUTENG PROVINCE.**

**GCS Project Reference: 19.0921**

**Background and Project Description**

The Provincial Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). The proposed projects are planned to have a township layout. There are two project sites and applications under investigation:

**1. Evaton West – Project F**

**GDARD Ref No: 002/20-21/E0032**

Evaton West – Project F is located within Evaton West on Erf 5085, close to Adidas Road and the National (N1) Road, which is to the west. The site is approximately 3.84 hectares in extent. Evaton West – Project F is inside of the 2010 urban edge and is zoned as “community facilities”.

**Activities for which Environmental Authorisation is being sought:**

Evaton West – Project F triggers the following potential Listed Activities in terms of the NEMA EIA Regulations (2014, as amended) and the National Heritage Resources Act (Act No. 25 of 1999):

- GN R327, 07 April 2017, Listing Notice 1 – Activity 27
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4
- Section 38 of the NHRA (Heritage Permitting)

**2. Evaton West – Project I**

**GDARD Ref No: 002/20-21/E0031**

Evaton West – Project I is located within Evaton West on Erf 14540 IQ, directly to the east of the Golden Highway (R553). The site is approximately 4.32 hectares in extent. Evaton West – Project I is inside of the 2010 urban edge and is zoned as “public open space/parks”.

**Activities for which Environmental Authorisation is being sought:**

Evaton West – Project I triggers the following potential Listed Activities in terms of the NEMA EIA Regulations (2014, as amended), the National Water Act (NWA) (Act 36 of 1998) and the National Heritage Resources Act (Act No. 25 of 1999):

- GN R327, 07 April 2017, Listing Notice 1 – Activity 12, 14, 19, 27; 30
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4, 10, 12, 14 and 15
- Section 21 of the NWA (Water Use License Application)
- Section 38 of the NHRA (Heritage Permitting)

**Project Progress and Participation:**

GCS Water and Environmental Consultants (Pty) Ltd (GCS), has been appointed to undertake the necessary environmental processes for the above-mentioned Projects and this notification forms part of the public consultation process as required by the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) EIA Regulations (2014, as amended) and the National Water Act, 1998 (Act 36 of 1998) (NWA).

**Opportunity to Participate:** Interested and affected parties (“I&APs”) are hereby invited to register as a stakeholder for these Projects. I&APs should please use the 19-0921 reference number when commenting and must provide their comments together with their name, contact details (preferred method of notification, e.g. e-mail address or fax number) and a disclosure of any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application, to the contact person indicated below, within **30 days** (i.e. the deadline for comments is **15 March 2021**) from the date of commencement (**12 February 2021**) in accordance with the statutory requirements.

The Draft Basic Assessment Reports and Supporting Documentation can be accessed at the following link from 12 February 2021:

- [www.gcs-sa.biz/Documents](http://www.gcs-sa.biz/Documents)

**PLEASE NOTE:** Due to COVID19 restrictions, no hard copies of the report will be available for review at public venues. However, the report is available electronically via the GCS Website (link provided above) or a CD can be made available upon request.

**Please submit all comments directly to GCS on or before 15 March 2021, as follows:**

Lehlogonolo Mashego

Tel: 011 803 5726

Fax: 011 803 5232

E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)

Mail: P O Box 2597, Rivonia, 2128



**NOTIFICATION OF A BASIC ASSESSMENT APPLICATION PROCESS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR, EVATON WEST PROJECT I, GAUTENG PROVINCE.**

GCS Project Reference: 19.0921

GDARD Reference: GAUT 002/21-22/E2906 (previous ref: GAUT002/20-21/E0031)

**Background and Project Description**

The Provincial Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). The proposed project, "Evaton West – Project I", is planned to have a township layout. The site located within Evaton West on Erf 14540 IQ, directly to the east of the Golden Highway (R553). The site is approximately 4.32 hectares in extent and is inside of the 2010 urban edge, zoned as "public open space/parks".

**Activities for which Environmental Authorisation is being sought:**

The following potential Listed Activities in terms of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations 2017, and the National Heritage Resources Act (Act No. 25 of 1999):

- GN R327, 07 April 2017, Listing Notice 1 – Activity 30
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4, 12 and 15
- Section 38 of the NHRA (Heritage Permitting)

**Project Progress and Participation:**

GCS Water and Environment Consultants (Pty) Ltd (GCS), has been appointed to undertake the necessary environmental processes for the above-mentioned project and this notification forms part of the public consultation process as required by NEMA and NHRA. This project was previously subjected to public consultation during February/March 2021 where the Draft Basic Assessment Report (DBAR) was made available for public review. Due to further investigations which needed to be incorporated, a Revised DBAR is now being made available for public consultation.

**Opportunity to Participate:** Interested and affected parties ("I&APs") are hereby invited to participate. A requested is made to all I&APs, please use the "19-0921" reference number when commenting, provide comments together with your name, contact details (preferred method of notification, e.g. e-mail address or fax number) and a disclosure of any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application, to the contact person indicated below, within **30 days** (i.e. the deadline for comments is **05 July 2021**) from the date of commencement (**04 June 2021**) in accordance with the statutory requirements.

The Revised DBAR and Supporting Documentation can be accessed at the following link from 04 June 2021:

- [www.gcs-sa.biz/Documents](http://www.gcs-sa.biz/Documents)

**PLEASE NOTE:** Due to COVID19 restrictions, no hard copies of the report will be available for review at public venues. However, the report is available electronically via the GCS Website (link provided above) or a CD can be made available upon request.

**Please submit all comments directly to GCS on or before 05 July 2021, as follows:**

Lehlogonolo Mashego

Tel: 011 803 5726

Fax: 011 803 5232

E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)

Mail: P O Box 2597, Rivonia, 2128

# APPENDIX H-3

## Site Notices







# NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR EVATON WEST – PROJECT I, GAUTENG PROVINCE.

GCS Ref. No: 19.0921  
GDARD Ref No: 002/20-21/E0031

## Background and Project Description

The Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). As part of this programme, the Evaton West – Project I Development has been identified for implementation.

The proposed project site is located on Erf 14540 IQ within Evaton West, directly to the east of the Golden Highway (R553). The site is measured at 4.32 hectares in extent. Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south. Evaton West – Project I is inside of the 2010 urban edge and is zoned as “public open space/parks”.



## Project Progress and Participation:

GCS Water and Environmental Consultants (Pty) Ltd (GCS), has been appointed to undertake the necessary environmental processes for the above-mentioned Project and this notification forms part of the public consultation process as required by the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) EIA Regulations (2014, as amended) and the National Water Act, 1998 (Act 36 of 1998) (NWA).

**Opportunity to Participate:** Interested and affected parties (“I&APs”) are hereby invited to register as a stakeholder for this Project. I&APs should please use the 19-0921 reference number when commenting and must provide their comments together with their name, contact details (preferred method of notification, e.g. e-mail address or fax number) and a disclosure of any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application, to the contact persons indicated below, within 30 days (i.e. the deadline for comments is **15 March 2021**) from the date of commencement (**12 February 2021**) in accordance with the statutory requirements.

### Activities for which Environmental Authorisation is being sought:

The Project triggers the following potential Listed Activities in terms of the NEMA EIA Regulations (2014, as amended) and the National Heritage Resources Act (Act No. 25 of 1999) (NHRA):

- GN R327, 07 April 2017, Listing Notice 1 – Activity 12, 14, 19, 27; 30
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4, 10, 12, 14 and 15
- Section 21 of the NWA (Water Use License Application)
- Section 38 of the NHRA (Heritage Permitting)

The Draft Basic Assessment Report and Supporting Documentation can be accessed at the following link from 12 February 2021:

- [www.gcs-sa.biz/Documents](http://www.gcs-sa.biz/Documents)

**PLEASE NOTE:** Due to COVID19 restrictions, no hard copies of the report will be available for review at public venues. However, the report is available electronically via the GCS Website (link provided above) or a CD can be made available upon request.

Please submit all comments directly to GCS on or before **15 March 2021**, as follows:

Lehlogonolo Mashego  
Tel: 011 803 5726  
Fax: 011 803 5232  
E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)  
Mail: P O Box 2597, Rivonia, 2128





## NOTIFICATION OF A BASIC ASSESSMENT APPLICATION PROCESS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR EVATON WEST – PROJECT I, GAUTENG PROVINCE.

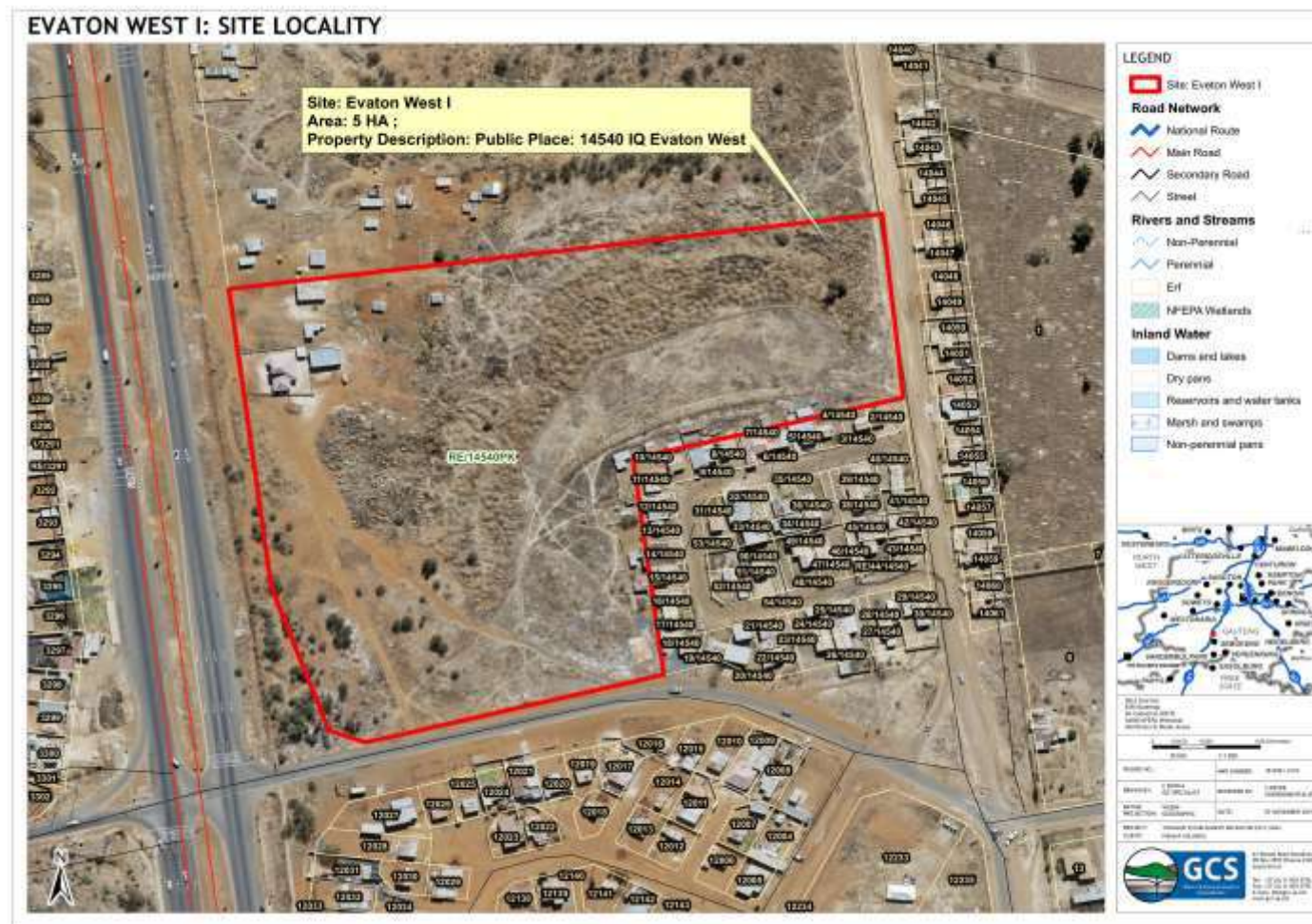
GCS Ref. No: 19-0921

GDARD Ref No: GAUT 002/21-22/E2906 (previous ref: GAUT 002/20-21/E0031)

### Background and Project Description

The Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). As part of this programme, the Evaton West – Project I Development has been identified for implementation.

The proposed project site is located on Erf 14540 IQ within Evaton West, directly to the east of the Golden Highway (R553). The site is measured at 4.32 hectares in extent. Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south. Evaton West – Project I is inside of the 2010 urban edge and is zoned as “public open space/parks”.



### Project Progress and Participation:

GCS Water and Environment Consultants (Pty) Ltd (GCS), has been appointed to undertake the necessary environmental processes for the above-mentioned project and this notification forms part of the public consultation process as required by National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) and National Heritage Resources Act, 1999 (Act 25 of 1999) (NHRA). This project was previously subjected to public consultation during February/March 2021 where the Draft Basic Assessment Report (DBAR) was made available for public review. Due to further investigations which needed to be incorporated, a Revised DBAR is now being made available for public consultation.

Opportunity to Participate: Interested and affected parties (“I&APs”) are hereby invited to participate. A request is made to all I&APs, please use the “19-0921” reference number when commenting, provide comments together with your name, contact details (preferred method of notification, e.g. e-mail address or fax number) and a disclosure of any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application, to the contact person indicated below, within 30 days (i.e. the deadline for comments is **05 July 2021**) from the date of commencement (**04 June 2021**) in accordance with the statutory requirements.

#### Activities for which Environmental Authorisation is being sought:

The Project triggers the following potential Listed Activities in terms of the NEMA Environmental Impact Assessment (EIA) Regulations (2014, as amended) and the NHRA:

- GN R327, 07 April 2017, Listing Notice 1 – Activity 30
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4, 12 and 15
- Section 38 of the NHRA (Heritage Permitting)

The Draft Basic Assessment Report and Supporting Documentation can be accessed at the following link from 04 June 2021:

- [www.gcs-sa.biz/Documents](http://www.gcs-sa.biz/Documents)

**PLEASE NOTE:** Due to COVID19 restrictions, no hard copies of the report will be available for review at public venues. However, the report is available electronically via the GCS Website (link provided above) or a CD can be made available upon request.

Please submit all comments directly to GCS on or before **05 July 2021**, as follows:

Lehlogonolo Mashego

Tel: 011 803 5726

Fax: 011 803 5232

E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)

Mail: P O Box 2597, Rivonia, 2128

# APPENDIX H-4

## Email Notifications



From: **Lehlo Mashego** <Lehlo@gcs-sa.biz>  
To: **Lehlo Mashego** <lehlo@gcs-sa.biz>  
CC: **Gerda Bothma** <gerdab@gcs-sa.biz>  
**'Daniel.Molokomme@gauteng.gov.za'**  
<Daniel.Molokomme@gauteng.gov.za>; **'Masina Litsoane'**  
<MLitsoane@environment.gov.za>; **'eiaadmin@environment.gov.za'**  
<eiaadmin@environment.gov.za>; **mudauk@dws.gov.za**  
<mudauk@dws.gov.za>; **'MOTAUNG, DAN (GDARD)'**  
<Dan.Motaung@gauteng.gov.za>; **'BELOT, BONISWA (GDARD)'**  
<Boniswa.Belot@gauteng.gov.za>; **'SEHONA, MALESELA (GDARD)'**  
<MALESELA.SEHONA2@gauteng.gov.za>; **'khanyiles@sedibeng.gov.za'**  
<khanyiles@sedibeng.gov.za>; **'maisakam@sedibeng.gov.za'**  
<maisakam@sedibeng.gov.za>; **'mapulengm@sedibeng.gov.za'**  
<mapulengm@sedibeng.gov.za>; **'siphon@sedibeng.gov.za'**  
<siphon@sedibeng.gov.za>; **'archiem@sedibeng.gov.za'**  
<archiem@sedibeng.gov.za>; **'motshedisim@sedibeng.gov.za'**  
<motshedisim@sedibeng.gov.za>; **'bettyp@sedibeng.gov.za'**  
<bettyp@sedibeng.gov.za>; **'refilwem@sedibeng.gov.za'**  
<refilwem@sedibeng.gov.za>; **'mirriamm@sedibeng.gov.za'**  
<mirriamm@sedibeng.gov.za>; **'khulum@sedibeng.gov.za'**  
<khulum@sedibeng.gov.za>; **'basseym@sedibeng.gov.za'**  
<basseym@sedibeng.gov.za>; **'sellop@sedibeng.gov.za'**  
<sellop@sedibeng.gov.za>; **'katep@sedibeng.gov.za'**  
<katep@sedibeng.gov.za>; **'mmatshepom@emfuleni.gov.za'**  
<mmatshepom@emfuleni.gov.za>; **'MM@emfuleni.gov.za'**  
<MM@emfuleni.gov.za>; **'leseane28@gmail.com'** <leseane28@gmail.com>;  
**'Amanda van Onselen'** <AmandaO@emfuleni.gov.za>;  
**'moratuwa@emfuleni.gov.za'** <moratuwa@emfuleni.gov.za>;  
**'hpelser@emfuleni.gov.za'** <hpelser@emfuleni.gov.za>;  
**'antonm@emfuleni.gov.za'** <antonm@emfuleni.gov.za>;  
**'NomvulaT@emfuleni.gov.za'** <NomvulaT@emfuleni.gov.za>; **'Nokukhanya Khumalo'** <nkhumalo@sahra.org.za>; **'nhiggitt@sahra.org.za'**  
<nhiggitt@sahra.org.za>; **'lmofutsanyana@sahra.org.za'**  
<lmofutsanyana@sahra.org.za>; **'liesbeth@emfuleni.gov.za'**  
<liesbeth@emfuleni.gov.za>; **'lekgotlame@emfuleni.gov.za'**  
<lekgotlame@emfuleni.gov.za>; **Lucas Mahlangu**  
<LMahlangu@environment.gov.za>;  
**'ARISTOTELIS.KAPSOSIDERIS@gauteng.gov.za'**  
<ARISTOTELIS.KAPSOSIDERIS@gauteng.gov.za>;  
**'Tebo.Leku@gauteng.gov.za'** <Tebo.Leku@gauteng.gov.za>;  
**'nomsajuliamooi83@gmail.com'** <nomsajuliamooi83@gmail.com>;  
**'maretha.lombard@vaaldriehoek.com'**  
<maretha.lombard@vaaldriehoek.com>; **'paul@bkserv.co.za'**  
<paul@bkserv.co.za>; **'maretha.lombard@vaaldriehoek.com'**  
<maretha.lombard@vaaldriehoek.com>; **'zanim@emfuleni.gov.za'**  
<zanim@emfuleni.gov.za>  
BCC: Subject: GRLRP: Evaton West (F &I) - Draft Basic Assessment (BA)\_from 12 Feb 2021  
Date: 15.02.2021 07:07:43 (+0100)  
Attachments: 19.0921 - Evaton West F - BID\_V1.pdf (9 pages), 19.0921 - Evaton West I - BID\_V1.pdf (10 pages)

Good morning stakeholders

I have spoken to a few of you personally to let you know of the Basic Assessment (BA) underway for the proposed Township Development in Evaton West Project F (Erf 5085, Ext 4) and Project I (Erf 14540, Ext 7), Emfuleni Local Municipality.

Please find attached are the Background Information Documents (BID's) with more information.

As mentioned, the Draft Basic Assessment Report (BAR) is now available and may be accessed on the link provided below.

Link: <http://www.gcs-sa.biz/public-documents/>

We are engaging with all stakeholders virtually and advise that you contact the undersigned to schedule accordingly. Do note that you are welcome to distribute the attached information and the email to people in your area that may be interested and/or affected.

Note: Advertisements with regards to the opportunity to become involved were published in the Vaal Weekblad (10 – 12 February 2021). Your participation in this project will be appreciated.

*Please make use of the attached comment sheet to provide your comments on the BAR on or before **15 March 2021**.*

Lehlogonolo Mashego / Gerda Bothma  
Tel: 011 803 5726, Fax: 011 803 5745,  
E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz) / [gerbab@gcs-sa.biz](mailto:gerbab@gcs-sa.biz)  
Mail: P O Box 2597, Rivonia, 2128

We are looking forward to your participation.

Kind regards  
Lehlogonolo Mashego





63 Wessel Road, Rivonia, 2128 PO Box 2597, Rivonia, 2128 South Africa  
Tel: +27 (0) 11 803 5726 Fax: +27 (0) 11 803 5745 Web: www.gcs-sa.biz

## Background Information Document: Evaton West Project F, Gauteng

February 2021

Phumaf Engineering Solutions

GCS Project Number: 19.0921

Client Reference: Evaton West F

GDARD Reference: 002/20-21/E0032



### ENVIRONMENTAL ASSESSMENT PRACTITIONER: GCS (PTY) LTD

GCS Water and Environment (Pty) Ltd (GCS) is a fully integrated water, environmental, and earth science consulting services company based in the Republic of South Africa. GCS provides a professional consulting service in the fields of environmental, water and earth sciences. GCS has a team of highly trained staff with considerable experience in the fields of environmental and water science.

**GCS WILL ACT AS THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP), AS WELL AS THE PUBLIC PARTICIPATION PRACTITIONER FOR THIS ENVIRONMENTAL AUTHORISATION PROCESSES AND PPP.**



**Background Information Document:  
Evaton West Project F, Gauteng**


Version - V1



February 2021

Phumaf Engineering Solutions

DOCUMENT ISSUE STATUS

Document Issue	V1		
GCS Reference Number	19.0921		
Title	Background Information Document: Evaton West Project F, Gauteng		
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
Prepared by:	Janice Callaghan		December 2020
Reviewed by:	Lehlogonolo Mashego		January 2021
Approved by:	Gerda Bothma		January 2021

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## INTRODUCTION

The purpose of this Background Information Document (BID) is to provide all Interested and Affected Parties (I&APs) with information in respect of the Application for Environmental Authorisation.

In addition to the aforesaid, the BID aims to:

- Introduce and explain the Basic Assessment (BA) Process;
- Introduce and explain the Public Participation Process (PPP), which is prescribed by the *National Environmental Management Act, 1998* (Act No. 107 of 1998) (NEMA);
- Invite all I&APs to comment on:
  - The ecological, physical, socio- economic aspects of the project as well as any other issues of concern;
  - The proposed public participation and environmental assessment process, and
  - Any other suggestions which might be of relevance.

### ABBREVIATIONS

ABBREVIATIONS	
<b>BA</b>	Basic Assessment
<b>BAR</b>	Basic Assessment Report
<b>BID</b>	Background Information Document
<b>CBAR</b>	Consultation BAR
<b>CRR</b>	Comments and Response Report
<b>DHWS</b>	Department Human Settlements, Water and Sanitation
<b>EA</b>	Environmental Authorisation
<b>EAP</b>	Environmental Assessment Practitioner
<b>EMP</b>	Environmental Management Plan
<b>FBAR</b>	Final Basic Assessment Report
<b>GCS</b>	GCS Water and Environmental Consultants (Pty) Ltd
<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development
<b>GRLRP</b>	Gauteng Rapid Land Release Programme
<b>I&amp;AP</b>	Interested and Affected Party
<b>NEMA</b>	National Environmental Management Act, 1998 (Act 107 of 1998)
<b>NWA</b>	National Water Act, 1998 (Act 36 of 1998)
<b>Phumaf</b>	Phumaf Holdings (Pty) Ltd
<b>PPP</b>	Public Participation Process

### PUBLIC PARTICIPATION - CONTACT DETAILS

**Contact Person(s):** Lehlogonolo Mashego  
011 803 5726  
011 803 5232

**Email:** [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)

**Postal Address:** PO Box 2597  
Rivonia  
Johannesburg  
2128



### WHAT IS A BA and EMP AND WHAT DO THEY CONTAIN?

The *National Environmental Management Act, 1998* (Act 107 of 1998) (NEMA) prescribes the processes to be followed when compiling the Basic Assessment Report and the Environmental Management Programme (EMP), in respect of the NEMA listed activities, which forms the legal basis of this authorisation. Activities falling under Listing Notice 1 (GN R327) or Listing Notice 3 (GN R324) require a Basic Assessment (BA) to be conducted.

The process aims to ensure that all relevant factors are considered when evaluating the potential environmental impacts of a project, as well as developing appropriate environmental management measures to mitigate these impacts. The purpose of the BA is to assess the current environment in which a proposed activity will take place and assess all potential impacts in terms of its extent, duration, intensity and significance relating to the specific activity. The EMP describes the goals and objectives for environmental management to minimise or eliminate the potential environmental impacts; the action plans to bring effect to those goals and objectives; the procedures to be implemented to ensure integration of environmental management into the daily operations; as well as a plan to raise awareness of employees and the surrounding community with regards to environmental management.

**PROJECT BACKGROUND**

The Department of Human Settlements, Water and Sanitation (DHWS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). Phumaf Holdings (Pty) Ltd (Phumaf) was appointed as the responsible Managing Engineers to undertake all preliminary planning, planning, design and construction management to enable the release of the identified stands. GCS Water and Environmental Consultants (Pty) Ltd (GCS) has been sub-contracted by Phumaf to undertake the environmental authorisation (EA) processes and associated Public Participation Processes (PPP) required for the stands in order for compliance to the National Environmental Management Act (NEMA) (Act 107 of 1998, as amended) and/or Supporting Environmental Management Acts (SEMA's). This background information document (BID) provides the background details for the proposed development, associated exercises undertaken in order to comply with the required authorisation process, and acts as a baseline document for all interested and affected parties (I&APs).

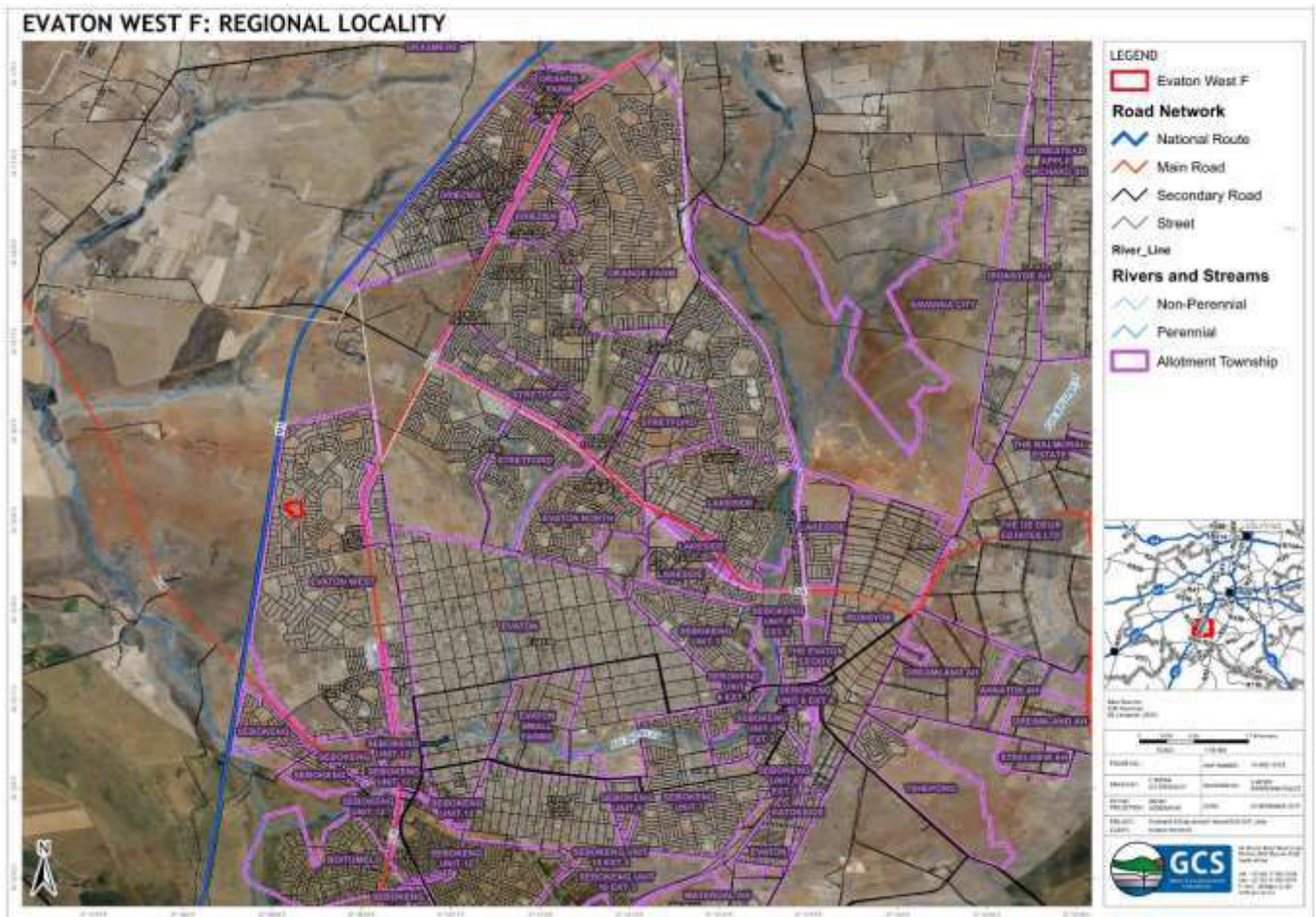


Figure 1: Site Locality Map and Regional Boundaries



**PROJECT DESCRIPTION**

Evaton West - Project F erf 5085 is located within Evaton West, close to Adidas Road and the National Road N1, which is to the west. Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south. The site is currently vacant, with residential land use to the south west, east and south of the stand. Land to the north and north west is vacant.

The site is approximately 3.84 hectares in extent. Refer to the maps below for the location and regional locality map, indicating the surrounding residential allotment townships. Evaton West is inside of the 2010 urban edge.

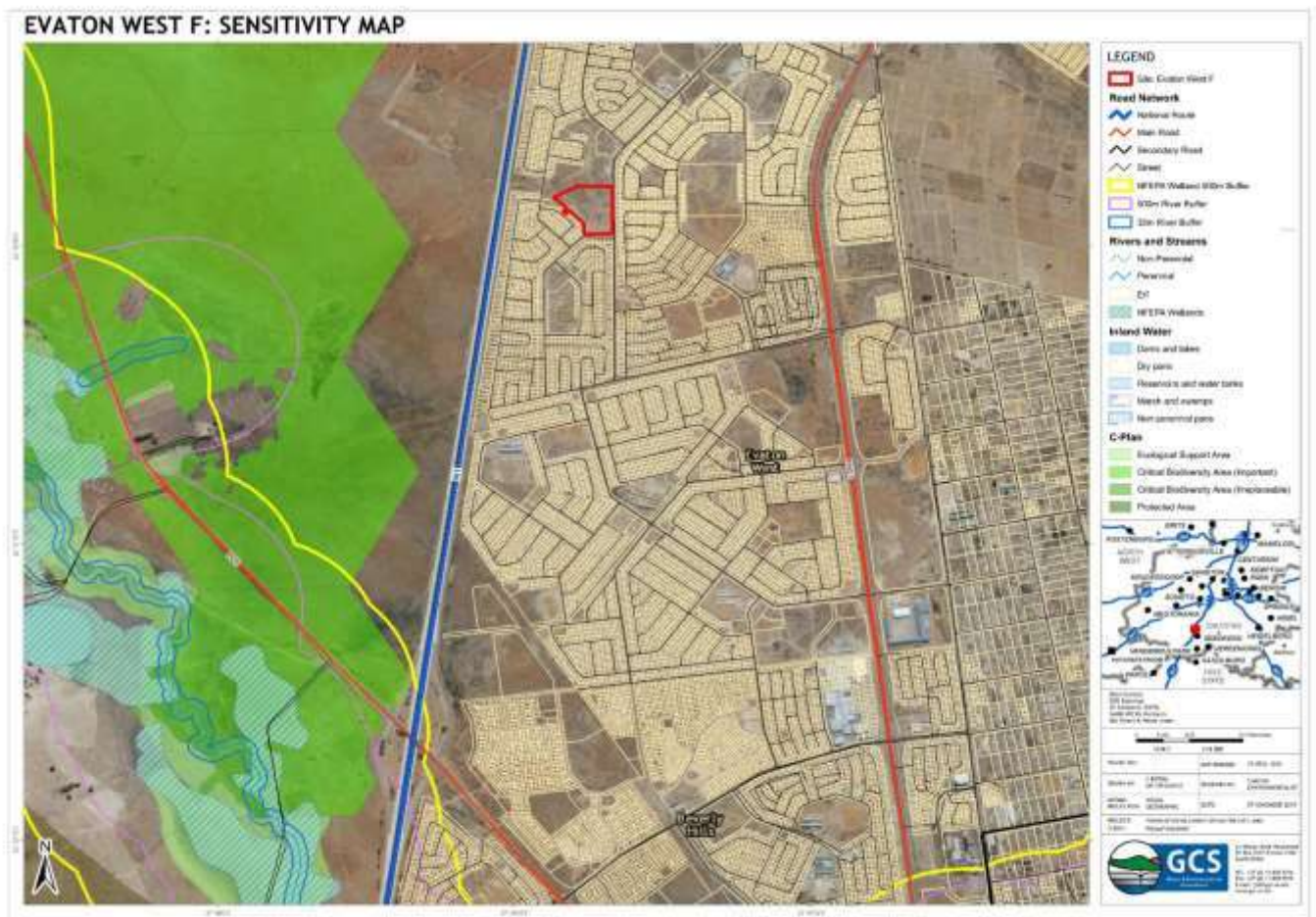


Figure 2: Evaton West Project F Sensitivity Map

**LOCALITY**

Province:	Gauteng
District:	Sedibeng District Municipality
Local Municipality:	Emfuleni Local Municipalities
Extent:	3.84 hectares
Zoning:	Community Facilities
Ownership:	Government
Current Use:	Vacant
Nearest Towns:	Orange Farm, Ennerdale, Sebokeng
Release Strategy:	Mixed High Density
Farm Portions affected:	Erf 5085 IQ Evaton West

**PROPOSED SPECIALIST ASSESSMENTS**

The following specialist studies will be undertaken:

- Aquatic; Ecology and Wetland Assessment;
- Heritage Impact Assessment (including Palaeontological Impact Assessment).
- Soils, land use, land capability Assessment

**REGULATORY CONTEXT:****THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (NEMA)**

Section 24(1) of NEMA requires that the potential consequences or impacts on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority. Where a Basic Assessment has been identified as the instrument to be utilised, an application for EA needs to be submitted. The identified activities are listed under Government Notice (GN) R 327, 325 and 324 of the 2014 NEMA Regulations respectively (as amended).

The following listed activity (Table 1.1) triggered under GNR 327 requires an application for an EA in the form of a BA process.

**NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) (NWA)**

A Water Use License Application may need to be compiled and submitted to the Department of Human Settlement, Water and Sanitation (DHWS) to ensure the legality of the proposed project's water uses.

- The Water Use License Application (if required) will be conducted for the project in parallel with the EIA and EMP process for any activity in terms of Section 21 of the NWA.

**Table 1.1: Identified Listed Activities under NEMA**

NR	Activity
<b>Listing Notice 1 (GNR 327)</b>	
27	<i>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i>
<b>Listing Notice 3 (GN R324)</b>	
4	<i>The development of a road wider than 4 metres with a reserve less than 13,5 metres. c. Gauteng i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; vii. Sites identified as high potential agricultural land in terms of Gauteng Agricultural Potential Atlas; xii. Sites zoned for conservation use or public open space or equivalent zoning.</i>


## PUBLIC PARTICIPATION PROCESS

Public involvement is an essential part of any environmental assessment / authorisation process. You have been identified as an I&AP who may want to receive information regarding the above-mentioned project. You will be given the opportunity to provide your input into the EA process and to receive information. All comments will be recorded and presented to the project team and regulatory authorities. You will receive feedback on how your comments have been taken into account and the outcome of the assessment.

I&APs include any person who will be directly or indirectly involved and/or affected by the project. To be recognized as an I&AP one must register with GCS to be added to the stakeholder database for the project. You may communicate via fax, email or telephone to obtain further information or comment on the proposed project. All registered I&APs will be kept informed of the decision taken by the GDARD.

Proposed steps in the process are as follows:

<b>Step 1:</b> Notify I&APs and identify issues	<ul style="list-style-type: none"> <li>• Notify I&amp;APs of the project proposal;</li> <li>• Identify any issues/concerns of I&amp;APs;</li> <li>• Provide I&amp;APs with a BID on the project, including a locality map and a Registration and Comment Sheet; and</li> <li>• I&amp;APs are required to register their interest in the project to receive further project information.</li> </ul>
<b>Step 2:</b> I&AP review of Consultation Basic Assessment Report (CBAR)	<ul style="list-style-type: none"> <li>• Issues and concerns raised by I&amp;APs are contained in a CRR;</li> <li>• The CBAR is released for a <b>30-day</b> commenting period; and</li> <li>• All registered I&amp;APs on the project database are notified in writing of the opportunity to comment.</li> </ul>
<b>Step 3:</b> Final Basic Assessment Report (FBAR)	<ul style="list-style-type: none"> <li>• Comments received from I&amp;APs during the review process are considered in the compilation of the FBAR; and</li> <li>• The FBAR, including the CRR and EMP is submitted to the Competent Authority.</li> </ul>
<b>Step 4:</b> Environmental Authorisation and Appeal Period	<ul style="list-style-type: none"> <li>• All registered I&amp;APs will be notified in writing of the decision by the Competent Authority regarding the authorisation, being positive or negative for the project. All I&amp;APs will also be notified of the appeal period, as well as the manner of appeal.</li> </ul>
<b>Step 5:</b> Public Notification	<p>A major part of the PPP is to notify members of the public of the proposed activities, particularly those who may be directly or indirectly affected by the proposed project. This will be achieved via the following means:</p> <ul style="list-style-type: none"> <li>• The placement of an advertisement in a regional newspaper;</li> <li>• Notices in English will be placed at the site;</li> <li>• Distribution of BIDs to landowners and occupiers of land adjacent to the proposed prospecting area and to I&amp;APs on request; and</li> <li>• Local authorities will be notified in writing and automatically registered as I&amp;APs.</li> </ul>
<b>How to comment</b>	<ul style="list-style-type: none"> <li>• Should you wish to register as an I&amp;AP in order to be kept informed, please complete the registration form on the overleaf and submit to GCS via fax, post or email.</li> <li>• Any further enquiries can be directed to GCS telephonically, or via fax or email.</li> <li>• It is important that you provide your contact details so that we can respond to your comments or questions.</li> </ul>
<b>Kindly note that should you require any other party to be contacted, please provide their contact details as well.</b>	

		<b>Phumaf Holdings (Pty) Ltd</b> <b>Evaton West Project F, Gauteng</b> <b>Background Information Document</b>			
		I&AP Comment and Registration Form GCS Ref No: 19.0921			
Name:		Surname:			
Organisation / interest:					
Postal / Residential address					
		Area:		Code:	
Contact details		Tel:	(    )		
		Fax:	(    )		
		Mobile:	(    )		
		Email:			
Please mark with an X to indicate whether you would like to participate in the process:					
Yes, I would like to participate in this process and receive periodic updates					<input type="checkbox"/>
No, I am not interested in participating and do not wish to receive further information					<input type="checkbox"/>
Preferred method of communication		Email		Fax	Post
Date commented		(DD / MM / YYYY)			
Please indicate any issues, comments and concerns with regards to the proposed project					
Please indicate in which aspects you would require more information					
Please indicate the contact details of any other I&APs whom you think should be contacted					
Name:		Surname:			
Tel:	(    )	Fax:	(    )		
Mobile:	(    )				
Email:					
In order to be registered as an I&AP for this project, fax, mail, or e-mail the completed registration form to Lehlogonolo Mashego at: Tel: (011) 803 5726 Fax: (011) 803 5232 Email: <a href="mailto:lehlo@gcs-sa.biz">lehlo@gcs-sa.biz</a> Post: PO Box 2597, Rivonia, 2128					







63 Wessel Road, Rivonia, 2128 PO Box 2597, Rivonia, 2128 South Africa  
Tel: +27 (0) 11 803 5726 Fax: +27 (0) 11 803 5745 Web: www.gcs-sa.biz

## Background Information Document: Evaton West Project I, Gauteng

February 2021

Phumaf Engineering Solutions

GCS Project Number: 19.0921

Client Reference: Evaton West I

GDARD Reference: 002/20-21/E0031



### ENVIRONMENTAL ASSESSMENT PRACTITIONER: GCS (PTY) LTD

GCS Water and Environment (Pty) Ltd (GCS) is a fully integrated water, environmental, and earth science consulting services company based in the Republic of South Africa. GCS provides a professional consulting service in the fields of environmental, water and earth sciences. GCS has a team of highly trained staff with considerable experience in the fields of environmental and water science.

**GCS WILL ACT AS THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP), AS WELL AS THE PUBLIC PARTICIPATION PRACTITIONER FOR THIS ENVIRONMENTAL AUTHORISATION PROCESSES AND PPP.**



**Background Information Document:  
Evaton West Project I, Gauteng**

Version - V1



February 2021

Phumaf Engineering Solutions

DOCUMENT ISSUE STATUS

Document Issue	V1		
GCS Reference Number	19.0921		
Title	Background Information Document: Evaton West Project I, Gauteng		
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
Prepared by:	Janice Callaghan		December 2020
Reviewed by:	Lehlogonolo Mashego		January 2021
Approved by:	Gerda Bothma		January 2021

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<b>CRR</b>	Comments and Response Report
<b>DHWS</b>	Department Human Settlements, Water and Sanitation
<b>EA</b>	Environmental Authorisation
<b>EAP</b>	Environmental Assessment Practitioner
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<b>FBAR</b>	Final Basic Assessment Report
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<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development
<b>GRLRP</b>	Gauteng Rapid Land Release Programme
<b>I&amp;AP</b>	Interested and Affected Party
<b>NEMA</b>	National Environmental Management Act, 1998 (Act 107 of 1998)
<b>NWA</b>	National Water Act, 1998 (Act 36 of 1998)
<b>Phumaf</b>	Phumaf Holdings (Pty) Ltd
<b>PPP</b>	Public Participation Process

### PUBLIC PARTICIPATION - CONTACT DETAILS

**Contact Person(s):** Lehlogonolo Mashego  
011 803 5726  
011 803 5232

**Email:** [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)

**Postal Address:** PO Box 2597  
Rivonia  
Johannesburg  
2128



### WHAT IS A BA and EMP AND WHAT DO THEY CONTAIN?

The *National Environmental Management Act, 1998* (Act 107 of 1998) (NEMA) prescribes the processes to be followed when compiling the Basic Assessment Report and the Environmental Management Programme (EMP), in respect of the NEMA listed activities, which forms the legal basis of this authorisation. Activities falling under Listing Notice 1 (GN R327) or Listing Notice 3 (GN R324) require a Basic Assessment (BA) to be conducted.

The process aims to ensure that all relevant factors are considered when evaluating the potential environmental impacts of a project, as well as developing appropriate environmental management measures to mitigate these impacts. The purpose of the BA is to assess the current environment in which a proposed activity will take place and assess all potential impacts in terms of its extent, duration, intensity and significance relating to the specific activity. The EMP describes the goals and objectives for environmental management to minimise or eliminate the potential environmental impacts; the action plans to bring effect to those goals and objectives; the procedures to be implemented to ensure integration of environmental management into the daily operations; as well as a plan to raise awareness of employees and the surrounding community with regards to environmental management.

## PROJECT BACKGROUND

The Department of Human Settlements, Water and Sanitation (DHWS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). Phumaf Holdings (Pty) Ltd (Phumaf) was appointed as the responsible Managing Engineers to undertake all preliminary planning, planning, design and construction management to enable the release of the identified stands. GCS Water and Environmental Consultants (Pty) Ltd (GCS) has been sub-contracted by Phumaf to undertake the environmental authorisation (EA) processes and associated Public Participation Processes (PPP) required for the stands in order for compliance to the National Environmental Management Act (NEMA) (Act 107 of 1998, as amended) and/or Supporting Environmental Management Acts (SEMA's). This background information document (BID) provides the background details for the proposed development, associated exercises undertaken in order to comply with the required authorisation process, and acts as a baseline document for all interested and affected parties (I&APs).

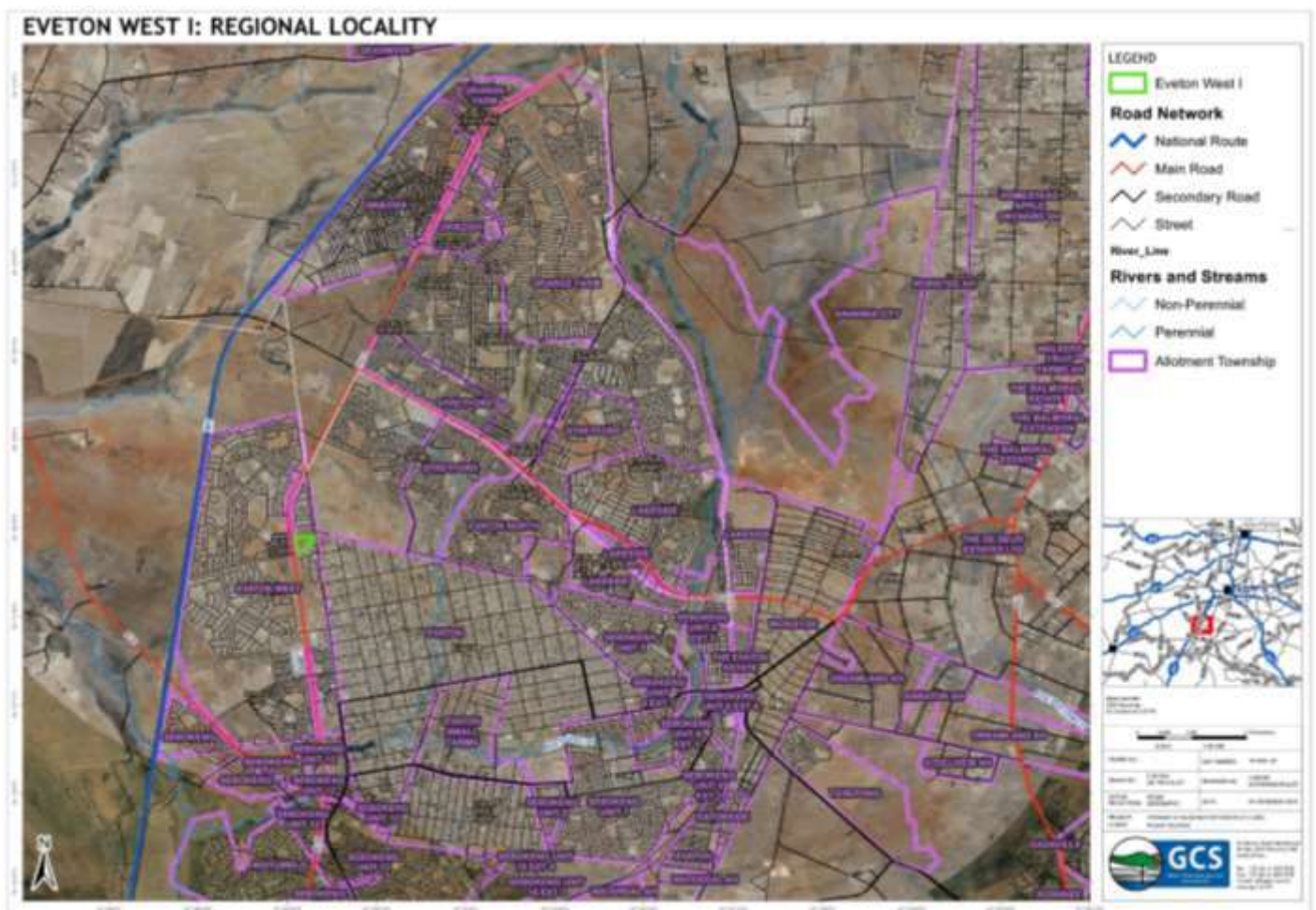


Figure 1: Site Locality Map and Regional Boundaries



**PROJECT DESCRIPTION**

Evaton West - Project I Erf 14540 IQ is located within Evaton West, directly to the east of the Golden Highway (R553). Project I site is measured at 5 hectares in extent. Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south. The site is currently vacant, except for unformalised residential and small commercial structures within the north western corner of the site. This should be highlighted as a risk within the greater development process and will need to be addressed appropriately. There is residential land use to the south eastern corner of the site, with vacant land to the north and across Lombard Mbatha Street to the east. To the south, across Ennis Road, there is residential land use. A school is located to the south east of the site. Pockets of vacant land are evident within the vicinity of the site.

The site is measured at 5 hectares in extent. Evaton West is inside of the 2010 urban edge.



Figure 2: Evaton West Project I Sensitivity Map

**LOCALITY**

Province:	Gauteng
District:	Sedibeng District Municipality
Local Municipality:	Emfuleni Local Municipalities
Extent:	5.0 hectares
Zoning:	Agriculture
Ownership:	Government
Current Use:	Vacant
Nearest Towns:	Orange Farm, Ennerdale, Sebokeng
Release Strategy:	Mixed High Density
Farm Portions affected:	Erf 13665 IQ Evaton West

**PROPOSED SPECIALIST ASSESSMENTS**

The following specialist studies will be undertaken:

- Aquatic; Ecology and Wetland Assessment;
- Heritage Impact Assessment (including Palaeontological Impact Assessment).
- Soils, land use, land capability Assessment

**REGULATORY CONTEXT:****THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (NEMA)**

Section 24(1) of NEMA requires that the potential consequences or impacts on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority. Where a Basic Assessment has been identified as the instrument to be utilised, an application for EA needs to be submitted. The identified activities are listed under Government Notice (GN) R 327, 325 and 324 of the 2014 NEMA Regulations respectively (as amended).

The following listed activity (Table 1.1) triggered under GNR 327 requires an application for an EA in the form of a BA process.

**Table 1.1: Identified Listed Activities under NEMA**

NR	Activity
<b>Listing Notice 1 (GNR 327)</b>	
12	<i>The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs – a) within a watercourse; b) in front of a development setback; or if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</i>
14	<i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</i>

NR	Activity
19	<i>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</i>
27	<i>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i>
30	<i>Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).</i>
<b>Listing Notice 3 (GN R324)</b>	
4	<i>The development of a road wider than 4 metres with a reserve less than 13,5 metres. c. Gauteng i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; vii. Sites identified as high potential agricultural land in terms of Gauteng Agricultural Potential Atlas; xii. Sites zoned for conservation use or public open space or equivalent zoning.</i>
10	<i>The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</i>
12	<i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. c. Gauteng iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</i>
14	<i>The development of— (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour. c. Gauteng i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; x. Sites zoned for conservation use or public open space or equivalent zoning.</i>
15	<i>The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010. b. Gauteng i. All areas.</i>




## PUBLIC PARTICIPATION PROCESS

Public involvement is an essential part of any environmental assessment / authorisation process. You have been identified as an I&AP who may want to receive information regarding the above-mentioned project. You will be given the opportunity to provide your input into the EA process and to receive information. All comments will be recorded and presented to the project team and regulatory authorities. You will receive feedback on how your comments have been taken into account and the outcome of the assessment.

I&APs include any person who will be directly or indirectly involved and/or affected by the project. To be recognized as an I&AP one must register with GCS to be added to the stakeholder database for the project. You may communicate via fax, email or telephone to obtain further information or comment on the proposed project. All registered I&APs will be kept informed of the decision taken by the GDARD.

Proposed steps in the process are as follows:

<b>Step 1:</b> Notify I&APs and identify issues	<ul style="list-style-type: none"> <li>• Notify I&amp;APs of the project proposal;</li> <li>• Identify any issues/concerns of I&amp;APs;</li> <li>• Provide I&amp;APs with a BID on the project, including a locality map and a Registration and Comment Sheet; and</li> <li>• I&amp;APs are required to register their interest in the project to receive further project information.</li> </ul>
<b>Step 2:</b> I&AP review of Consultation Basic Assessment Report (CBAR)	<ul style="list-style-type: none"> <li>• Issues and concerns raised by I&amp;APs are contained in a CRR;</li> <li>• The CBAR is released for a <b>30-day</b> commenting period; and</li> <li>• All registered I&amp;APs on the project database are notified in writing of the opportunity to comment.</li> </ul>
<b>Step 3:</b> Final Basic Assessment Report (FBAR)	<ul style="list-style-type: none"> <li>• Comments received from I&amp;APs during the review process are considered in the compilation of the FBAR; and</li> <li>• The FBAR, including the CRR and EMP is submitted to the Competent Authority.</li> </ul>
<b>Step 4:</b> Environmental Authorisation and Appeal Period	<ul style="list-style-type: none"> <li>• All registered I&amp;APs will be notified in writing of the decision by the Competent Authority regarding the authorisation, being positive or negative for the project. All I&amp;APs will also be notified of the appeal period, as well as the manner of appeal.</li> </ul>
<b>Step 5:</b> Public Notification	<p>A major part of the PPP is to notify members of the public of the proposed activities, particularly those who may be directly or indirectly affected by the proposed project. This will be achieved via the following means:</p> <ul style="list-style-type: none"> <li>• The placement of an advertisement in a regional newspaper;</li> <li>• Notices in English will be placed at the site;</li> <li>• Distribution of BIDs to landowners and occupiers of land adjacent to the proposed prospecting area and to I&amp;APs on request; and</li> <li>• Local authorities will be notified in writing and automatically registered as I&amp;APs.</li> </ul>
<b>How to comment</b>	<ul style="list-style-type: none"> <li>• Should you wish to register as an I&amp;AP in order to be kept informed, please complete the registration form on the overleaf and submit to GCS via fax, post or email.</li> <li>• Any further enquiries can be directed to GCS telephonically, or via fax or email.</li> <li>• It is important that you provide your contact details so that we can respond to your comments or questions.</li> </ul>
<b>Kindly note that should you require any other party to be contacted, please provide their contact details as well.</b>	

		<b>Phumaf Holdings (Pty) Ltd</b> <b>Evaton West Project I, Gauteng</b> <b>Background Information Document</b> I&AP Comment and Registration Form GCS Ref No: 19.0921			
Name:		Surname:			
Organisation / interest:					
Postal / Residential address					
		Area:		Code:	
Contact details		Tel:	(    )		
		Fax:	(    )		
		Mobile:	(    )		
		Email:			
Please mark with an X to indicate whether you would like to participate in the process:					
Yes, I would like to participate in this process and receive periodic updates					
No, I am not interested in participating and do not wish to receive further information					
Preferred method of communication		Email		Fax	Post
Date commented		(DD / MM / YYYY)			
Please indicate any issues, comments and concerns with regards to the proposed project					
Please indicate in which aspects you would require more information					
Please indicate the contact details of any other I&APs whom you think should be contacted					
Name:		Surname:			
Tel:	(    )	Fax:	(    )		
Mobile:	(    )				
Email:					
<p>In order to be registered as an I&amp;AP for this project, fax, mail, or e-mail the completed registration form to          Lehlogonolo Mashego at:          Tel: (011) 803 5726          Fax: (011) 803 5232          Email: <a href="mailto:lehlo@gcs-sa.biz">lehlo@gcs-sa.biz</a>          Post: PO Box 2597, Rivonia, 2128</p>					



**APPENDIX H-5**  
Copy of Flyers distributed





**FLYER OF AN ENVIRONMENTAL AUTHORISATION APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR EVATON WEST – PROJECT I, GAUTENG PROVINCE.**

**GCS Ref. No: 19.0921**  
**GDARD Ref No: 002/20-21/E0031**

**Background and Project Description**

The Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands from State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). As part of this programme, the Evaton West – Project I Development has been identified for implementation.

The proposed project site is located on Erf 14540 IQ within Evaton West, directly to the east of the Golden Highway (R553). The site is measured at 5 hectares in extent. Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south. Evaton West – Project I is inside of the 2010 urban edge and is zoned as “public open space/parks”.



**Project Progress and Participation:**

GCS Water and Environmental Consultants (Pty) Ltd (GCS), has been appointed to undertake the necessary environmental processes for the above-mentioned Project and this notification forms part of the public consultation process as required by the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) EIA Regulations (2014, as amended) and the National Water Act, 1998 (Act 36 of 1998) (NWA).

Opportunity to Participate: Interested and affected parties (“I&APs”) are hereby invited to register as a stakeholder for this Project. I&APs should please use the 19-0921 reference number when commenting and must provide their comments together with their name, contact details (preferred method of notification, e.g. e-mail address or fax number) and a disclosure of any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application, to the contact persons indicated below, within 30 days (i.e. the deadline for comments is **15 March 2021**) from the date of commencement (**12 February 2021**) in accordance with the statutory requirements.

Activities for which Environmental Authorisation is being sought:

The Project triggers the following potential Listed Activities in terms of the NEMA EIA Regulations (2014, as amended) and the National Heritage Resources Act (Act No. 25 of 1999) (NHRA):

- GN R327, 07 April 2017, Listing Notice 1 – Activity 12, 14, 19, 27; 30
- GN R324, 07 April 2020, Listing Notice 3 – Activity 4, 10, 12, 14 and 15
- Section 21 of the NWA (Water Use License Application)
- Section 38 of the NHRA (Heritage Permitting)

The Draft Basic Assessment Report and Supporting Documentation can be accessed at the following link from 12 February 2021:

- [www.gcs-sa.biz/Documents](http://www.gcs-sa.biz/Documents)

**PLEASE NOTE:** Due to COVID19 restrictions, no hard copies of the report will be available for review at public venues. However, the report is available electronically via the GCS Website (link provided above) or a CD can be made available upon request.

Please submit all comments directly to GCS on or before **15 March 2021**, as follows:

Lehlogonolo Mashego  
Tel: 011 803 5726  
Fax: 011 803 5232  
E-mail: [lehlo@gcs-sa.biz](mailto:lehlo@gcs-sa.biz)  
Mail: P O Box 2597, Rivonia, 2128

## **APPENDIX H-6**

### **Original Comments**

*No record outside formal comments sent by GDARD, all other comments received were from face-to-face engagements and telephonic discussions.*



**APPENDIX H-7**  
Comments & Response Report – V1





# Comments and Responses Report (CRR)

Version 1

15 March 2021



This Comments and Responses Report (CRR) **Version 1** provides a summary of the comments, questions and issues raised by stakeholders since the announcement of the application on 12 February 2021 for a Regulatory Process for an Environmental Authorisation for the proposed Evaton West –Project I Township Development in Gauteng Province.

- Version 1 of the CRR is appended to the Revised Draft Basic Assessment Report (DBAR) and records issues and concerns raised during the announcement and consultative period of the project from 12 February 2021 to 15 March 2021.

## Table of Contents

Comments received during the review period of the Draft Basic Assessment Report (12 February to 15 March 2021) ..... 1

## List of Appendices

ANNEXURE A .....	8
ANNEXURE B .....	9

ISSUE OR CONCERN		CONTRIBUTOR	DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
<b>Comments received during the review period of the Draft Basic Assessment Report (12 February to 15 March 2021)</b>					
<p>The proposed development will need to account for the service and maintenance issues present within the area. This includes but not subjected to the roads, sewage issues and electrical issues.</p>		<p>General</p> <p>Evaton West Community Members</p>	<p>12 Feb 2021</p>	<p>Verbal comment during site notice placement</p>	<p>The proposed development requires 20MVA electricity supply. Of this 5MVA is already available at the Eskom Sonland Substation. This will suffice for the first 2 phases at least, and the balance will become available later. It should be noted that Emfuleni will take over operation and maintenance of the electrical network once the development is complete.</p> <p>The proposed development area falls within the Emfuleni Local Municipality (Metsi-A-Lekoa) Water jurisdiction and the municipality serves as both the Water and Sanitation Service Authority as well as the Water and Sanitation Service Provider.</p> <p>The Emfuleni Local Municipality is responsible for the provision and maintenance of roads and stormwater infrastructure in its area of jurisdiction.</p>
<p>What are the planned actions regarding the housing and community access to housing?</p>		<p>General</p> <p>Evaton West Community Members</p>	<p>12 Feb 2021</p>	<p>Verbal comment during site notice placement</p>	<p>It has been recommended that a Resettlement Action Plan be developed in consultation between the applicant, the Department of Human Settlements (DHS) and the community in order to ensure mutual beneficial utilisation culminating form the proposed development.</p>

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE	
It is requested that should there be any newspaper advertisements, Vaal Weekblad is the most practical means for which this may be carried out.	Cllr	Nomsa Mooi	Julia	Ward Councillor	07 Mar 2021	Email correspondence	The comment has been noted.
Madam afternoon we kindly request that you attend our public meeting on Wednesday 1pm next to Golden Highway next to red 14540 Ext 7B please, with department of housing	Cllr	Nomsa Mooi	Julia	Ward Councillor	07 Mar 2021	Email correspondence	On the 08 March 2021 GCS responded: Please be advised that your request for attendance at a public meeting has been noted and has been communicated to the Project Team. Regarding the proposed date, due to extremely short notice, we might not be able attend, however, should that be the case then an alternative date will be proposed inviting all Evaton West stakeholders with your guidance and assistance.
We request to have a meeting with DSD on Wednesday in next to Golden highway 14540 Ext 7b.	Cllr	Nomsa Mooi	Julia	Ward Councillor	07 Mar 2021	Email correspondence	Further correspondence from GCS on 15 March 2021: We would like to thank you for your participation in the public consultation period. Following our previous engagement, kindly note that we have noted your raised queries and have detailed them below: <ul style="list-style-type: none"> <li>• Concerns regarding people currently living on the site (over 20yrs). Clarification regarding their situation is required when moving forward with the project.</li> <li>• Is the housing proposed for this site going to be provided free of charge? And, if so, how is allocation to be determined?</li> </ul> Kindly note that the project team is working at ensuring the best feedback to the raised queries and as such, all issues and responses will be

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
						<p>incorporated into the Comments and Response Report (CRR). Additionally, may you kindly provide me with your detailing consultation records, of the discussions held with the community regarding this project (e.g., any, WhatsApp trails, , meeting minutes, attendance registers and/or pictures). It would further be highly valued if you can provide formal comments as indicated previously. Do note the contents of the provided information will form part of the CRR and therefore it will be appreciated if you can send this important information urgently.</p>
<p>Please note that Activity 19 Listing Notice 1 as highlighted in the application form is not included in the draft basic assessment report. Activity 30 of Listing Notice 1 and Activity 10 of Listing Notice 3 are included in the draft basic assessment report but not in the application form. The issues must be corrected, either the application form must be amended to reflect all the activities for and the same activities must be reflected in the draft report.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	<p>Noted, the activities within the revised application form and the Revised DBAR has been aligned and includes all the correct activities being applied for within this application process.</p>
<p><b>Specialist Studies</b> There are no environmental sensitivities on site according to Department GIS and C-plan version 3.3, however, it is indicated on the application form that there is a potential watercourse on site, therefore ecological studies must be undertaken by the suitable qualified specialist in order to detect if there is an actual watercourse on site and should form part of the final Basic Assessment Report. All other specialist studies</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	<p>All available specialist studies undertaken in support of this development is appended to the Revised DBAR, including the Wetland Assessment undertaken to investigate the presence of water courses on site. Appendix B-1 – Wetland Assessment Appendix B-2 – Phase 1 HIA Appendix B-2 – Paleontogogical Study Appendix B-4 – Traffic study</p>



ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
included in the draft report must also form part of the final report.						Appendix C – Civil Engineering Services Report Appendix D – Residential Market Study Appendix E – Urban Design Framework
<p><b>Services required</b> Water and sewer will be sourced from the Local Municipality and electricity from Eskom. Both Local Municipality and Eskom must comment on the proposed development.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	All interested and affected parties, including the service providers have been approached for their comments. However, to date no formal responses has been received. GCS will endeavour to obtain such comments during the review period of the Revised DBAR.
<p><b>Assessment of Alternatives</b> Four alternative options outlined in the draft report is noted, however it must be thoroughly assessed in such a way that it must inform decision making process on the final BAR.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, the identified preferred alternative has been thoroughly assessed within the Revised DBAR. Refer to Section 8 in the Report.
<p><b>Maps, layout plans, services route positioning</b> A color layout plans showing all four (4) alternative options (in an A3 page) indicating the position of all the proposed activities on site with a legend clearly linked to activities components must be included in the final report. It should be clear and legible.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, please refer to Appendix E of the Report.
<p><b>Public Participation Process</b> The Public Participation Process must be done in accordance to the minimum requirements of EIA Regulations 2014. Stakeholders must be consulted through delivery of draft amendment report, but electronic methods of delivery of reports are encouraged. The Department is encouraged that the Public Participation Process will include virtual activities as far as possible as per the minutes of the pre-consultation meeting. Note that all comments from registered interested and affected parties must be incorporated on the comments and response report to be attached in the final report and must be adequately</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, Public Participation for the initial DBAR has been undertaken in accordance with the requirements of the EIA Regulations 2014 (as amended) and the intended participation process for the Revised DBAR will be undertaken in accordance with the requirements of the EIA Regulations 2014 (as amended). Please refer o Appendix H for a record of the process undertaken to date.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
<p>addressed. Note that the application may be prejudiced by not addressing issues raised by the registered interested and affected parties and all aspects raised in this letter.</p> <p>Proof of correspondence (site notice, newspaper advertisement, email, fax, delivery etc.) with stakeholders must be included in the final report. Should you be unable to submit comments, proof of attempts that were made to obtain comments must be submitted to this Department. Any other information that needs to be added that will benefit the decision-making process must be included in the final report.</p>						
<p>The proposed development includes filling station which is applicable only for alternative options 3 and 4. Therefore it should be thoroughly assessed, if not, a separate application for a filling station must be submitted to this Department.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted. However, please be advised that the preferred option is not inclusive of a filling station and as such no assessment of a filling station has been undertaken.
<p>A zoning certificate from the relevant municipality must also be attached to the final BAR.</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, the required zoning certificate has been requested from the municipality and the project team is awaiting response in this regard. See Annexure B for the reference correspondence regarding the zoning certificate requests, communication and proof of submission for Evaton Project land use application.
<p>According to the minutes of the pre-consultation meeting (19 August 2020), the proposal will make provision for a package sewage plant. The proposed sewage package plant must be commented on by Ekurhuleni Metropolitan Municipality and the Department of Human Settlement, Water and Sanitation (DHSWS).</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Please be advised that the Pre-application Meeting was held to discuss various projects located within the Emfuleni Municipality's jurisdiction. The proposed sewage package plant is proposed for the Unitas Park – Extension 16 (Erf 2630) Development Application and therefore will be

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
						assessed within that separate environmental application process.
The proposal for the new storm water systems to be discharged to the nearest watercourses must also be commented on by DHSWS.	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, the DHSWS has been approached for their comments. However, to date no formal responses has been received. GCS will endeavour to obtain such comments during the review period of the Revised DBAR.
A detailed storm water management plan for the proposed site (including storm water management measures to be implemented temporarily during the construction phase and permanent measures to be installed for the operational phase) must be developed by a suitably qualified engineer and approved by the Local Municipality.	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, the appointed engineering team is in consultation with the Emfuleni Municipality in order to ensure that their requirements is addressed within the SWMP development.
Principles of sustainable development will need to be incorporated into the proposed development during both its construction phase and the operational phase. Aspects such as green building techniques, energy (renewable energy proposal is commended) and water efficiency measures as well as waste minimization techniques, needs attention.	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, the principles of sustainable development will form an integral part of the development and the developer will endeavour to implement various measures during the construction and operational phases of the project.
<p><b>Environmental Management Programme (EMPr)</b></p> <p>EMPr is not attached in the draft report therefore it must be included in the final Report. The EMPr must comply with the content requirements as stipulated in Appendix 4 of the Environmental Impact Assessment (EIA) Regulations, 2014. The EMPr needs to address to address impacts that may arise as a result of the proposed activity and must be practical, site specific and easily enforceable. It is binding document and all the conditions in it should be enforceable, it is</p>	Mr	Tendai Rambuda	Control Environmental Officer	12 Mar 2021	Email correspondence	Noted, please refer to Appendix I of the Report.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
therefore important that words that do not emphasise enforcement be avoided.						



## **ANNEXURE A**

Comment and Registration Forms

*None have been received, all lines of communication have been face-to-face and telephonic discussions. This excludes the written feedback from GDARD.*

## **ANNEXURE B**

Email Correspondence



21 April 2021

**Attention: Mr. Anton Mojapelo**

Corner Klasie Havenga and Frikkie Meyer Boulevard  
Box 3  
Vanderbijlpark  
Gauteng

Dear Sir,

An application is herewith made, in terms of section 38 and 50 of the Emfuleni Local Municipality Spatial Planning and Land Use Management By-Law, 2016 for the permission to simultaneously rezone and subdivision the following erven in Evaton West:

- Erf 8058 Evaton West Extension 4
- Erf 13665 Evaton West Extension 7
- Erf 13690 Evaton West Extension 7
- Remaining Extent of Erf 14540 Evaton West Extension 7

The applications are accompanied by the following documents as per the municipal by-laws:

- Four copies: Application Form
- Seven copies per application: Motivation Report
- Seven copies per application: Power of Attorney
- Seven copies per application: Letter of Appointment
- Seven copies per application: Title Deed
- Seven copies per application: Locality Maps
- Seven copies per application: Site Development Plan
- Seven copies per application: General Plan
- Seven copies per application: Engineering Reports

I trust that you will find the above and attached to be in order.

REGISTRATION No: 2018/419828/07



Acknowledgement of receipt of the above mentioned documents:			
Date	Time	Received by	Signature
06/05/201	11:15am		Bafana Tlithi

Yours Faithfully

Boitumelo Ramathunya

REGISTRATION No: 2018/419828/07

PHUMAF HOLDINGS (PTY) LTD  
1<sup>st</sup> Floor, 24 Peter Place, Lyme Park, Bryanston 2191  
PO Box 4049 Randburg 2194  
Tel: +27-11-326 0741/0790  
Chairman: Mr. J F Mokoena  
Director: LS Mottanthe (B. Proc LLB (Unin) LLM(Rau)  
Chief Executive Officer: Mr.K Chitenhe, PMP, (Pr.CPM), SMSAIEE, BSc (Eng.) Hons  
Head of Engineering: Mr. S Mnguni (Pr.Tech.Eng) (MSAICE) BTech (Civil Eng.)  
Head of Project Management: Mr. N Gandiwa BSc Eng.

**From:** Lehlo Mashego  
**Sent:** Thu, 3 Jun 2021 08:54:47 +0000  
**To:** Lehlo Mashego  
**Subject:** RE: Zoning Certificates  
**Attachments:** Application Proof of Submission Evaton Projects.pdf

FYI

---

**From:** Boitumelo Ramathunya <BRamathunya@phumaf.com>  
**Sent:** Thursday, 06 May 2021 2:14 PM  
**To:** Lehlo Mashego <lehlo@gcs-sa.biz>  
**Subject:** FW: Zoning Certificates

Good Day

Please see information below regarding zoning certificate requests communication and proof of submission for Evaton Project land use application .

Regards Boitumelo

---

**From:** Boitumelo Ramathunya  
**Sent:** Friday, 30 April 2021 10:48  
**To:** 'nhlanhlam@emfuleni.gov.za' <[nhlanhlam@emfuleni.gov.za](mailto:nhlanhlam@emfuleni.gov.za)>; 'AntonM Mojapelo' <[AntonM@emfuleni.gov.za](mailto:AntonM@emfuleni.gov.za)>  
**Cc:** 'zukisanim@emfuleni.gov.za' <[zukisanim@emfuleni.gov.za](mailto:zukisanim@emfuleni.gov.za)>  
**Subject:** RE: Zoning Certificates

Good Day

Please advise on progress of the zoning certificate request?

---

**From:** Boitumelo Ramathunya  
**Sent:** Wednesday, 21 April 2021 14:51  
**To:** [nhlanhlam@emfuleni.gov.za](mailto:nhlanhlam@emfuleni.gov.za); AntonM Mojapelo <[AntonM@emfuleni.gov.za](mailto:AntonM@emfuleni.gov.za)>  
**Cc:** [zukisanim@emfuleni.gov.za](mailto:zukisanim@emfuleni.gov.za)  
**Subject:** Zoning Certificates

Good Day

Please assist with Zoning Certificates for the following erven:

- Erf 8058 Evaton West Extension 4
- Erf 13665 Evaton West Extension 7
- Erf 13690 Evaton West Extension 7
- Remaining Extent of Erf 14540 Evaton West Extension 7



Kind Regards Boitumelo  
0785046093

**APPENDIX I**  
Draft Environmental Management Programme





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# Revised Environmental Management Plan (EMP) for Evaton West - Project I (Erf 14540, Ext 7)

Revised Report for Authority and Public Review

May 2021



Phumaf Holdings (Pty) Ltd

GCS Project Number: 19.0921

Client Reference: Evaton West - Project I

GDARD Reference: 002/20-21/E0031



# Revised Environmental Management Plan (EMP) Evaton West - Project I (Erf 14540, Ext 7)

Revised Report for Authority and Public Review



May 2021

## DOCUMENT ISSUE STATUS

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	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Author</b>	Lehlogonolo Mashego		May 2021
<b>Document Reviewer</b>	Gerda Bothma		May 2021

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## CONTENTS PAGE

<b>1</b>	<b>OVERVIEW.....</b>	<b>5</b>
1.1	PROJECT BACKGROUND .....	5
1.2	PURPOSE OF THE EMPR .....	5
1.3	CONTENT OF THE EMPR.....	6
1.4	DETAILS OF APPLICANT AND EAP .....	8
1.5	ASSUMPTIONS AND LIMITATIONS .....	9
1.6	LEGAL REQUIREMENTS .....	9
<b>2</b>	<b>PROJECT DESCRIPTION.....</b>	<b>13</b>
2.1	SITE DESCRIPTION .....	13
2.2	SITE SENSITIVITY .....	13
2.2.1	<i>Climate.....</i>	<i>13</i>
2.2.2	<i>Topography.....</i>	<i>13</i>
2.2.3	<i>Geology and Soils .....</i>	<i>14</i>
2.2.4	<i>Terrestrial Biodiversity .....</i>	<i>15</i>
2.2.5	<i>Hydrology.....</i>	<i>16</i>
2.2.6	<i>Socio-Economic Context.....</i>	<i>16</i>
2.2.7	<i>Traffic.....</i>	<i>17</i>
2.2.8	<i>Cultural Heritage Resources .....</i>	<i>17</i>
2.3	ACTIVITY DESCRIPTION .....	22
<b>3</b>	<b>ROLES AND RESPONSIBILITIES.....</b>	<b>23</b>
3.1	ENGINEER'S REPRESENTATIVE .....	23
3.1.1	<i>Method Statements.....</i>	<i>23</i>
3.1.2	<i>Environmental Register.....</i>	<i>24</i>
3.2	ENVIRONMENTAL CONTROL OFFICER.....	24
<b>4</b>	<b>ENVIRONMENTAL MANAGEMENT PLAN ACTIONS.....</b>	<b>26</b>
4.1	KEY ENVIRONMENTAL IMPACTS .....	26
4.1.1	<i>Planning and Design Phase.....</i>	<i>26</i>
4.1.2	<i>Construction Phase.....</i>	<i>26</i>
4.1.3	<i>Operational Phase.....</i>	<i>26</i>
4.1.4	<i>Decommissioning Phase.....</i>	<i>27</i>
4.1.5	<i>Cumulative and Latent Impacts.....</i>	<i>27</i>
4.2	ENVIRONMENTAL OPPORTUNITIES .....	27
4.3	MANAGEMENT ACTIONS.....	28
4.4	CONSEQUENCES OF NON-ADHERENCE TO THE EMPR.....	68
4.4.1	<i>Spot Fines.....</i>	<i>68</i>
4.4.2	<i>Penalty Fines.....</i>	<i>68</i>
<b>5</b>	<b>CONCLUSION.....</b>	<b>69</b>
<b>6</b>	<b>REFERENCE LIST.....</b>	<b>70</b>

## LIST OF FIGURES

Figure 2-1:	Evaton West Project I Locality Map.....	18
Figure 2-2:	Evaton West Project I Regional Locality Map. ....	19
Figure 2-3:	Map indicating Environmental Sensitivity of the Evaton West Project I.....	20
Figure 2-4:	Map indicating Environmental Sensitivity and proposed Site Layout of the Evaton West Project I.....	21



**LIST OF TABLES**

Table 1.1: Contents of this EMPr ..... 6  
Table 1.2: Name and address of applicant..... 8  
Table 1.3: Name and address of Environmental Assessment Practitioner (EAP). ..... 8  
Table 1.4: Applicable legislation and best practice guidelines used to develop this EMPr and to be considered by the Applicant. .... 9  
Table 4.1: EMPr management actions throughout the project lifecycle. .... 29

**LIST OF APPENDICES**

Appendix A..... 71  
Appendix B..... 73

## 1 OVERVIEW

### 1.1 Project Background

The Gauteng Rapid Land Release Programme (GRLRP) aims to fast track the release of serviced stands from state-owned land to qualifying beneficiaries, in order to address housing, economic, social and agricultural needs in the province. Several stands in Gauteng were identified as potential development sites. Phumaf Holdings (Pty) Ltd (Phumaf, the Applicant) was appointed to assist the Department of Human Settlements (DHS) with all pre-planning, planning work, design and construction management to enable the release of the identified stands.

The Evaton West Project I stand (Erf 14540, Extension 7), located in Emfuleni Local Municipality, was identified for development of a housing project. As the site is 5 hectare (ha) in extent and located within the urban edge, triggering Activity 12,14,19,27 and 30 of Listing Notice 1 under the National Environmental Management Act (NEMA, Act 107 of 1998, as amended) Environmental Impact Assessment (EIA) Regulations (GNR 327, GG 40772, 07 April 2017) and Activity 4, 10, 12, 14 and 15 of Listing Notice 3 under NEMA EIA Regulations (GNR 324, GG 40772, 07 April 2017). This requires that the Applicant undertake a Basic Assessment process in order to gain Environmental Authorisation (EA) for the development.

GCS Water and Environment Consultants (Pty) Ltd (GCS) has been appointed as the Environmental Assessment Practitioner (EAP) to undertake the required Basic Assessment process.

### 1.2 Purpose of the EMPr

Section 19 of the NEMA EIA Regulations of 2017 (GN R326 in GG 40772, April 2017), requires that the Applicant submit an Environmental Management Plan (EMPr) to the Competent Authority. This EMPr will form part of the Environmental Authorisation for Evaton West Project I, once approved.

Furthermore, the EMPr is an important environmental management tool, developed in line with best practices under NEMA and other environmental legislation, and informed by the EAP's professional experience as well as any relevant specialist information. The EMPr provides management guidance for activities undertaken at the development site. If correctly followed, the EMPr ensures that any adverse environmental impacts which could result from the development are adequately managed and mitigated for.

The EMPr outlines all environmental management and monitoring actions required throughout the project lifecycle. The EMPr is legally binding and any person who contravenes the provisions herein is liable for imprisonment or a fine. This document should be viewed as “live” and thus, should be updated as and when necessary. The purpose of this document is therefore to guide environmental management throughout the various lifecycle phases of the proposed development.

The objectives of the EMPr are as follows:

- Ensure compliance with the relevant environmental legislation and conditions of the EA;
- Ensure that development activities are appropriately managed;
- Verify environmental performance through information on impacts as they occur;
- Respond to changes or unforeseen events; and
- Provide feedback on the continual improvement in environmental performance.

It is understood the all contract documentation related to the construction, operation and decommissioning (if required) of the proposed development will include the conditions of this EMPr. It is important to note that the contract obligations must include the recording of any complaints on the project in the environmental register. Further, it is incumbent on the ECO to keep an accurate audit trail showing compliance with the EMPr during construction phase.

### 1.3 Content of the EMPr

According to Appendix 4 of the NEMA EIA Regulations of 2017, as amended (GNR 326 in GG 40772, April 2017), the EMPr for a project must include certain information. **Table 1.1** below describes how this report meets those requirements.

**Table 1.1:** Contents of this EMPr

REQUIREMENT	SECTION IN THIS REPORT
Details of– (i) the EAP who prepared the EMPr; and (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae;	Section 1.4
A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 2.3
A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Section 2.2
A description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided,	Section 4

<p>managed and mitigated as identified through the environmental impact assessment process for all phases of the development including–</p> <ul style="list-style-type: none"> <li>(i) Planning and design;</li> <li>(ii) Pre-construction activities;</li> <li>(iii) Construction activities;</li> <li>(iv) Rehabilitation of the environment after construction and where applicable post closure; and</li> <li>(v) Where relevant, operation activities;</li> </ul>	
<p>A description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated above will be achieved, and must, where applicable, include actions to–</p> <ul style="list-style-type: none"> <li>(i) Avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;</li> <li>(ii) Comply with any prescribed environmental management standards or practices;</li> <li>(iii) Comply with any applicable provisions of the Act regarding closure, where applicable; and</li> <li>(iv) Comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;</li> </ul>	Section 4
<p>The method of monitoring the implementation of the impact management actions;</p>	Section 3
<p>The frequency of monitoring the implementation of the impact management actions;</p>	Section 3
<p>An indication of the persons who will be responsible for the implementation of the impact management actions;</p>	Section 3
<p>The time periods within which the impact management actions must be implemented;</p>	Section 4
<p>The mechanism for monitoring compliance with the impact management actions;</p>	Section 3
<p>A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;</p>	Section 3
<p>An environmental awareness plan describing the manner in which–</p> <ul style="list-style-type: none"> <li>(i) The applicant intends to inform his or her employees of any environmental risk which may result from their work; and</li> <li>(ii) Risks must be dealt with in order to avoid pollution or the degradation of the environment; and</li> </ul>	Section 4
<p>Any specific information that may be required by the competent authority.</p>	NA

#### 1.4 Details of Applicant and EAP

The details of the applicant are provided in **Table 1.2**.

**Table 1.2:** Name and address of applicant.

ITEM	DETAILS
Company Name	Department of Human Settlement (DHS) - Provincial
Company Representative	Daniel Molokomme
Contact Persons	Daniel Molokomme
Telephone No.	016 440 7628
Facsimile No.	016 950 5050
E-mail Address	<a href="mailto:Daniel.Molokomme@gauteng.gov.za">Daniel.Molokomme@gauteng.gov.za</a>
Postal Address	Private Bag X79, Marshalltown, 2001

GCS Water and Environment (Pty) Ltd (GCS) have been appointed as the independent Environmental Assessment Practitioners (EAP) to undertake the environmental processes required to obtain approval for the proposed listed activities, as requested by the relevant competent authorities. The contact details of the EAP are provided in **Table 1.3** and the EAP's CV is attached as **Appendix A**.

**Table 1.3:** Name and address of Environmental Assessment Practitioner (EAP).

ITEM	DETAILS
Company Name	GCS Water and Environment (Pty) Ltd
Company Representative	Gerda Bothma
Telephone No.	+27 (0)11 803 5726
Facsimile No.	+27 (0)11 803 5745
E-mail Address	gerdab@gcs-sa.biz
Postal Address	PO Box 2597, Rivonia, 2128

Gerda Bothma has over 20 years' experience within the environmental and waste management field and strives to deliver custom environmental services to clients. Ms Bothma began her career in the environmental field within the government sector, managing environmental aspects and impacts as well as reviewing environmental assessments with the view of authorizing or declining authorization of the developments.



After six years within the government sector she joined a consulting engineering firm where she was ultimately responsible for the Management of the Environmental Sub-Division. Ms Bothma has experience in project and client management, financial management and the compilation and costing of project proposals and tenders. She has been involved in several engineering projects as the Environmental Assessment Practitioner as well as the Environmental Control Officer during construction, working closely with the Occupational Health and Safety Officer. Ms Bothma has also been involved in projects where waste licensing as well as water use licensing processes formed an integral part of the services offered. Environmental auditing and compliance monitoring of waste disposal sites also forms part of her experience gained. She also has experience in dealing with projects which involve NEC3 Contracts.

### 1.5 Assumptions and Limitations

This EMPr has been drafted with the acknowledgment of the following assumptions and limitations:

- Information used to guide the development of this EMPr was gained during the site visit, through the Department of Environmental Affairs' (DEA) Online Screening Tool, through specialist input and using the EAP's experience in such developments. A Heritage Assessment was the only contributing specialist assessment.
- The mitigation measures recommended in this EMPr document are based on the risks/impacts identified in the Basic Assessment Report (BAR). These impacts were identified according to the activities described and the known receiving environment. Should the development expand to include additional activities not covered in the BAR, the risks will have to be reassessed and mitigation measures updated accordingly.

### 1.6 Legal Requirements

The EMPr has been developed using knowledge of relevant South African legislation as well as best practice guidelines. The Applicant is legally required to adhere to the laws laid out below, throughout the life cycle of the project. **Table 1.4** below lists the relevant legislation and guidelines applicable to the development.

**Table 1.4:** Applicable legislation and best practice guidelines used to develop this EMPr and to be considered by the Applicant.

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
The Constitution of the Republic of South Africa (Act 108 of 1996)	The Constitution is the supreme act to which all other acts must speak to and sets out the rights for every citizen of South Africa and aims to address past social injustices. With respect to the	The Applicant must ensure that environmental impacts are avoided, mitigated or managed as far as

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
	<p>environment, Section 24 of the constitution states that:                      “Everyone has the right:                      a) To an environment that is not harmful to their health or well-being;                      b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:                          i. Prevent pollution and ecological degradation;                          ii. Promote conservation; and                          iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”.</p>	<p>possible throughout the life cycle of the project.</p>
<p>National Environmental Management Act (Act 107 of 1998) (NEMA)</p>	<p>Framework law giving effect to the constitutional environmental right. Provides the framework for regulatory tools in respect of environmental impacts. Section 24 of NEMA regulates environmental authorisations.                      Section 28(1) states that “Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment”.</p>	<p>Residential developments outside an urban area where the total land to be developed is larger than 1 ha requires Environmental Authorisation through a Basic Assessment process.                       The Applicant must ensure that environmental impacts are avoided, mitigated or managed as far as possible throughout the life cycle of the project.</p>
<p>National Environmental Management: Waste Act (Act 59 of 2008) (NEM:WA)</p>	<p>Regulates inter alia the duty of care, management, transport and disposal of waste. Section 16(1) of the NEM:WA provides that:                      “A holder of waste must, within the holder’s power, take all reasonable measures to -                      a) avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated;                      b) reduce, re-use, recycle and recover waste;                      c) where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner;                      d) manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts;                      e) prevent any employee or any person under his or her supervision from contravening this Act; and</p>	<p>While no Waste Management Licence will be required for this development, the Applicant must ensure that waste is appropriately managed throughout the life cycle of the project.</p>

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
	<p>f) prevent the waste from being used for an unauthorised purpose.” The NEM:WA also provides for a licensing regime specific to waste management activities.</p>	
<p>National Environmental Management: Air Quality Act (Act 39 of 2004) (NEM:AQA)</p>	<p>Regulates activities which may have a detrimental effect on ambient air quality including certain processes and dust generating activities.</p>	<p>An Air Emissions Licence will not be required, however, duty of care should be employed during construction to minimise air pollution as far as possible.</p>
<p>National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEM:BA)</p>	<p>Regulates the protection of biodiversity and the management of invasive species. Section 73 speaks to duty of care with respect to listed invasive species and states that “A person who is the owner of land on which a listed invasive species occurs must notify any relevant competent authority, in writing, of the listed invasive species occurring on that land, take steps to control and eradicate the listed invasive species and to prevent it from spreading and take all the required steps to prevent or minimise harm to biodiversity.”</p>	<p>Should a threatened or protected species be discovered on the site, a permit will be required to remove or relocate the specimen.  It is also the duty of the Applicant to remove invasive species found on site.</p>
<p>Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA)</p>	<p>Regulates the eradication of weeds and invader plants, including those occurring on development sites.</p>	<p>It is the duty of the Applicant to remove invasive species found on site.</p>
<p>National Water Act (Act 36 of 1998) (NWA)</p>	<p>Regulates the protection of the water resources and the use of water. Section 19(1) states that “An owner of land, a person in control of land or a person who occupies or uses the land on which - a) any activity or process is or was performed or undertaken; or b) any other situation exists, which causes, has caused or is likely to cause pollution of a water resource, must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring.”  Section 21 outlines various water uses for which authorization is required.</p>	<p>No watercourses or wetlands are located within the study area as observed from areal imagery. No scheduled water uses are anticipated through the proposed housing and/or retail development.</p>
<p>The National Heritage Resources Act (Act 25 of 1999) (NHRA)</p>	<p>Section 34(1) of NHRA states that “No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.”</p>	<p>A heritage study undertaken on the site confirmed that no heritage features or sites of significance were identified. However, should a heritage artefact be found during development, the chance find procedure should be adhered to.</p>

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
Spatial Planning and Land Use Management Act (Act 16 of 2013) (SPLUMA)	The aim of SPLUMA is to provide a uniform system of spatial planning and land use management throughout the country. SPLUMA places emphases on the fundamental role municipal planning and municipalities have on effective spatial planning and development. Based on the above use is primarily governed by the applicable land use or zoning scheme and land may not be used in contravention of such a scheme. Despite any issued environmental authorisation, activities can only be executed on land with the appropriate zoning permitting such activities.	The land on which the settlement will be developed must be appropriately rezoned by the Applicant with the assistance of a town planner.
Carbon Tax Act (Act 15 of 2019)	Regulates and guides the imposition of taxes on businesses or organisations in relation to their carbon emissions.	The Applicant must adhere to the reporting stipulations within the Act.
Occupational Health and Safety Act (Act 85 of 1993) (OHSA) and Regulations for Hazardous Chemical Substances (GN R1179, 1995)	Makes provision to protect the health and safety of employees at work or others affected by activities undertaken by businesses or industries.	The Applicant must adhere to the stipulations within the Act throughout the lifecycle of the activity.
Hazardous Substance Act (Act 15 of 1973)	Regulates substances which may cause injury, ill-health or death of human beings through their toxic, corrosive, irritant, strongly sensitizing or flammable nature.	The Applicant must adhere to the stipulations within the Act throughout the lifecycle of the activity.
Emfuleni Local Municipality Notice: Water and Sanitation By-Laws, 2004	Regulates/manages waste water in the Emfuleni Local Municipality.	The Applicant must adhere to the stipulations within the by-laws throughout the lifecycle of the activity.
Emfuleni Local Municipality Solid Waste Management By-Laws, 2017	Regulates collection and removal of refuse for residents and businesses within the municipal area.	The business must adhere to the stipulations within the by-laws throughout the lifecycle of the activity. Waste removal services will be provided by the municipality.
Emfuleni Local Municipality Air Quality Management By-Laws, 2017	Regulates air pollution and provides a management framework to ensure that air pollution is avoided or managed within the municipality's jurisdiction.	The Applicant must adhere to the stipulations within the by-laws throughout the lifecycle of the activity.

## 2 PROJECT DESCRIPTION

### 2.1 Site Description

Evaton West - Project I erf 14540 IQ is a 5 ha parcel of land located within Emfuleni Local Municipality, in the suburb of Evaton West, east of the Golden Highway (R553). Orange Farm and Ennerdale are located to the north of the site, and Sebokeng is situated to the south (see **Figure 2-1** and **Figure 2-2**). The site currently has some vacant land, informal residential development and spoil stockpiles. It further consists of except small commercial structures within the north western corner of the site. The residential land use is located to the south eastern corner of the site, with the vacant land to the north and across Lombard Mbatha Street to the east. To the south, across Ennis Road, there is residential land use. A school is located to the south east of the site. Pockets of vacant land are evident within the vicinity of the site.

### 2.2 Site Sensitivity

#### 2.2.1 Climate

In the Evaton area, the highest average monthly maximum temperature occurs in January (30.2 °C) and the lowest average monthly maximum temperature occurs in July (21.1 °C). The highest average monthly minimum temperature occurs in June/ July (-1.9 °C) and the highest average monthly minimum temperature occurs in January (11 °C). Evaton West falls within a summer rainfall area where precipitation is highest on average in January (125 mm) and lowest in July (4 mm) (Meteovista, 2020).

The climate is characterised by warm, wet summers and cool, dry winters; this, combined with the effects of altitude, results in a long growing season (centred over summer) lasting about six to seven months, alternating with unproductive winter and early spring seasons. There is also high primary productivity leading to a rapid build-up of biomass, resulting in a high fuel load and potentially intense fires (SANBI, 2013).

#### 2.2.2 Topography

The proposed site can be considered to be flat with the lowest point on the site is recorded as being in the south at approx. 1540 meters above mean sea level (mamsl), to 1543 mamsl in the north (Figure 23). The site rises gently from 1541 mamsl in the west to 1544 mamsl in the east (Figure 24). According to the Civil Engineering Services Report prepared by Phumaf (7 July 2019) (Appendix C to the BAR), available topographic contours show a gentle regional dip slope south-westward with a gradient of merely 1:75 (0.8° or 1.3%). This is largely representative of the site, which is comparatively undisturbed at the ground surface and dips gently south-westwards, with a general absence of noticeable fill at ground level, which is characteristic of several other open sites in Evaton.



Much of the proposed housing and/or retail development would be visible to road users of the R553 (Golden Highway) and adjacent roads based on the relatively flat topography of the site (Figure 24). The site would also be visible from the formal settlements immediately adjacent to the site. The site is predominately flat.

### 2.2.3 *Geology and Soils*

The diverse geology underlying Mesic Highveld Grassland correlates closely with high levels of plant species richness and endemism. The soils derived from the diverse types of parent rock vary in texture from sandy to clayey and the sandier soils tend to support lower basal cover but higher plant species diversity than less sandy ones (SANBI, 2013).

Geoid Geotechnical Engineers (Pty) Ltd was appointed to conduct a GFSH2 - Phase 1 Geotechnical Site Investigation for Erf 14540, Evaton West Ext.7. The information below is extracted from the recommendations from the Geotechnical Investigation Report (Appendix C). Several foundation strategies are presented in the report. The selection of a foundation solution will require appropriate consideration of the relative stiffness and deformation potential with that of the top-structure in each instance, as well as environmental issues inclusive of potential disturbance to neighbouring developments from compaction vibrations, noise, space for stockpiling excavated materials, etc.

Test pits profiling indicates that there is limited colluvial material which may satisfy nominally G6-G7 standards, with the remainder of the natural soils rated as poor to very poor quality in terms of their engineering applications. As such, none of these soils, other than the pebble marker, should be relied upon for high-quality soil mattress construction.

In addition, all of the landfill material encountered is completely unsuitable for reuse and would need to be fully removed and replaced beneath individual structures. Moreover, the loose boulders so prevalent on-site are poorly suited to an earthwork's solution - unless this were to be fragmented and crushed on-site to generate a suitable engineered fill material. Indications are, however, that the unweathered boulders on-site may have a UCS in the order of 400MPa, making a crushing operation on-site unviable.

Depending on the foundation solution to be adopted, concrete surface beds may be required where not suspended. These should be constructed on a consistent bed of at least three 150mm layers of imported / colluvial gravel if the landfill is retained, and these compacted to 95% Mod AASHTO density to prevent cracking induced by differential support. Where the pebble marker cannot be harvested, nor the bouldery fill crushed to provide this material, provision should be made for suitable G5/G6 materials to be imported from commercial quarries.

Given the site classification, the general drainage precautions presented in Appendix C should be strictly applied to obviate any unnecessary/avoidable saturation of the profile immediately adjacent to the structures. The drainage patterns of the site under the present surface must, however, be formally investigated to assess the surface water challenges, as the site observations suggest that there may be some internal drainage problems induced by the landfill deposits.

Despite the level site, individual structures may necessitate the removal and replacement of the landfill in box cuts, introducing localised slope stability concerns. The sidewalls of any deep services trenches or box cuts should be appropriately battered or propped during construction. The surcharging of cut sidewalls by way of spoil heaps, construction materials, and equipment (including those with outrigger jacks) should be strictly avoided as being highly-detrimental to cut stability, particularly when workers are present in trenches/box excavations over 1.5 m deep.

#### ***2.2.4 Terrestrial Biodiversity***

According to Mucina and Rutherford (2006) the proposed development area falls within the Soweto Highveld Grassland vegetation unit. This vegetation unit has been classified as 'endangered' with almost half already having been impacted or transformed due to cultivation, urban sprawl, mining and building of road infrastructure (Mucina and Rutherford, 2006). Despite the ongoing impacts to this vegetation unit, only 0.2% is protected which is far below the conservation target of 24%.

According to the Gauteng CPlan Version 3.3 (GDARD, 2011), there are no CBAs or ESAs on or adjacent to the site (Figure 19).

The site is located within an area classified as part of the Threatened Ecosystem (Soweto Highveld Grassland- Vulnerable). Soweto Highveld Grassland is a form of Mesic Highveld Grassland (SANBI, 2013). In this landscape, there is a high natural incidence of fire, owing to frequent storms, and lightning strikes. The natural occurrence of fire, combined with the effects of frost and hail storms, maintains the open, largely treeless character of these grasslands (SANBI, 2013).

The site shows very little of the original prevailing vegetation types as it has been altered over an extended period. Vegetation amongst the structures is sparse and limited to patchy grass with scattered small bush dotted around the site.

### 2.2.5 Hydrology

The site is located within DWS Quaternary Catchment C22H, in the Vaal Water Management Area (WMA).

No watercourses or wetlands are located within the proposed development or within a 500m radius of the developmental site and the proposed site. No scheduled water uses are anticipated through the proposed housing and/or retail development. The Rietspruit River runs south of the site, and its associated tributaries and wetland systems are located east and west of the site. The site does not fall within 500 m regulated of the NFEPA wetlands (Figure 20).

The site is located in a high rainfall region. The characteristically dense vegetation in mesic grassland landscapes cover traps surface water, slowing runoff and allowing more time for water to drain vertically through the porous soil profile; this water is then stored as sub-surface water by the impermeable rock layers that lie beneath the subsoil. This sub-surface water drains slowly as clean water into the many wetland systems that occur throughout this ecosystem (as a result of its flattish topography), replenishing streams and rivers almost year-round. The supply of good quality water from these ecosystems is important for domestic, agricultural, industrial and commercial water users both in South Africa and neighbouring countries (SANBI, 2013).

From the topographic profile of the site in Figures 23 and 24, it is clear that the site is predominately flat (around 1540 mamsl across the site). Additional stormwater management infrastructure would be required to facilitate drainage.

### 2.2.6 Socio-Economic Context

According to the Sedibeng Growth and Development Strategy 2 (Sedibeng District Municipality, 2012), the Evaton population is of low-Living Standards Measurement with low access to services. This places the community as vulnerable to impact. The community also has a high unemployment rate. These factors must be considered when proposing development within Evaton West. The community is not positioned to address impacts to their human health, living conditions or environment. Therefore, the developer must communicate with neighbouring community members to minimize the negative impacts of the development. This will be focused on the construction phase of the project. It must be noted that neighbouring households are located within 15m of the proposed development area.

Stats SA provides the following information: According to Census 2011, ELM has a total population of 721 663, of which 85,4% are black African, 12% are white, 1,2% are coloured, and 1,0% are Indian/Asian. Of those 20 years and older, 3,6 % completed primary school, 36,7% have some secondary education, 32,4% completed matric, and 12,9% have some form of higher education. The percentage with no form of schooling is 4,0%. Of the population, 202 543 people are economically active (employed or unemployed but looking for work) and, of these, 34,7% are unemployed. Of the 85 594 economically active youth (15-35 years) in the area, 45% are unemployed.

### 2.2.7 Traffic

A Traffic Impact and Access Study was undertaken. The proposed site is within the Orange Farm - Sebokeng 'urban cluster'. This cluster is a deprivation area that straddles the Emfuleni and City of Johannesburg municipal areas. 15 - 20km to the north are Lenasia and Ennerdale. The closest urban node is Vanderbijlpark and Vereeniging which are 15 - 20km to the south. The site is located between the N1 to the west and Golden Highway (R553) to the east, which provides it with high levels of regional accessibility. On the sub-regional level accessibility is impaired by the lack of connector roads to the N1: access to the N1 is approximately 16.3km or 20 minutes' drive from the development site. It is to be noted that the surrounding area has a well-developed street network. It is however a curvilinear layout that limits permeability for pedestrians.

### 2.2.8 Cultural Heritage Resources

A Phase 1 HIA was undertaken in March 2020 by HCAC - Heritage Consultants (Appendix B-1) in terms of the NHRA.

The lack of significant heritage resources in the study area was confirmed by a survey of the impact areas of the proposed project, and no heritage sites were identified.

An independent paleontological study (Bamford 2020) (Appendix B-2) concluded that the proposed site lies on the volcanic rocks (lava, basalt, andesite, tuff) of the Hekpoort Formation, Pretoria Group, Transvaal Supergroup, of early Proterozoic age that does not preserve fossils. Based on the geological record and literature it is recommended that no palaeontological site visit is required and the project can proceed and the study included a Fossil Chance Find Protocol.

Due to the apparent lack of significant heritage resources in the study area, the impact of the proposed project on heritage resources is considered to be low and it is recommended that the proposed project can commence on the condition that the following recommendations are implemented as part of the EMP and based on approval from SAHRA:

- Implementation of a chance find procedure (archaeological and paleontological).



Figure 2-1: Evaton West Project I Locality Map.



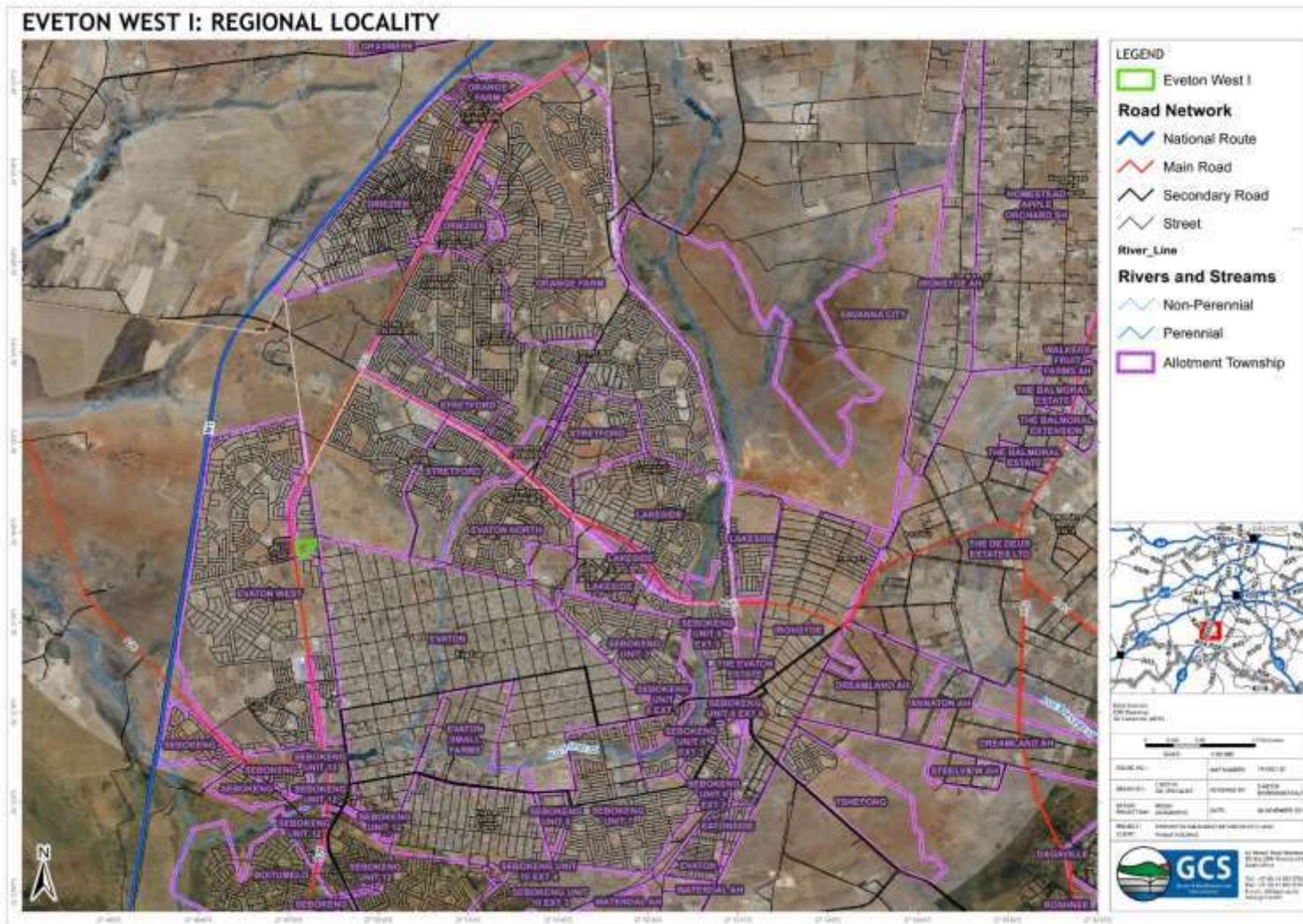


Figure 2-2: Evaton West Project I Regional Locality Map.









Figure 2-4: Map indicating Environmental Sensitivity and proposed Site Layout of the Evaton West Project I

### 2.3 Activity Description

The development of the site from open space to a residential development will include the following aspects during the pre-planning phase:

- Site design and layout;
- Identification of service infrastructure already present in the area;
- Construction planning; and
- Relevant permitting.

Construction phase activities will include:

- Vegetation clearance;
- Excavation;
- Service infrastructure installation;
- Paving and concreting;
- Building; and
- Rehabilitation.

During the operational phase, activities will include:

- Occupation of residential structures;
- Use of service infrastructure;
- Stormwater Management; and
- Use of roads.

Decommissioning of this project is highly unlikely due to its permanent nature, however, should decommissioning be deemed necessary, activities would include:

- Demolition of residential;
- Decommissioning of service infrastructure;
- Removal of building rubble; and
- Rehabilitation.

Throughout the project lifecycle, the construction, operating and decommissioning teams must be prepared for unplanned emergencies or incidents threatening human health or the environment.

### 3 ROLES AND RESPONSIBILITIES

#### 3.1 Engineer's Representative

Phumaf has been appointed by the Department of Human Settlements to undertake the design and implementation of the project. Phumaf is therefore responsible for the implementation of this EMPr on site.

During the construction phase, a representative of Phumaf (the Engineer) must be on site every day in order to oversee and manage the environmental (and other) aspects of development. Throughout other phases of the project lifecycle, the representative must visit the site frequently to manage environmental aspects.

This individual will be responsible for overseeing all environmental aspects on site, including sub-contractors or service providers. The representative should undertake weekly site inspections to ensure that the EMPr is being effectively implemented on site. The representative's responsibilities include the following:

- Managing and facilitating communication and training to all staff on the content of this EMPr;
- Ensuring that a copy of this EMPr is always available on site;
- Conducting and reporting on weekly site inspections (by way of a checklist) to document the implementation of this EMPr;
- Identifying and assessing previously unforeseen, actual or potential impacts on the environment;
- Facilitating any monitoring required;
- Advising the Site Manager regarding the removal of person(s) and/or equipment not complying with the provisions of this EMPr;
- Making recommendations to the Site Manager with respect to the issuing of fines for contraventions of the EMPr; and
- Continually reviewing the EMPr and recommending additions and/or changes to this document as necessary.

##### 3.1.1 Method Statements

It is recommended that the Engineer's Representative develop site specific method statements, in consultation with the appointed Contractor, which will assist in managing aspects of the development, in line with the requirements of the EMPr. A generic method statement has been included as



**Appendix B.** Method Statements should include at least a description of the activity to be undertaken, a detailed description of the process to be followed (including methods and materials), an indication of which areas the work will be undertaken in and an indication of the timeframes and end dates of the activity.

All Method Statements must be in place at least five (5) working days prior to the relevant activity beginning. At minimum, the following method statements must be in place:

- Site plan, including “no-go areas”, sensitive sites and TOPS;
- Waste Management Plan;
- Erosion Management Plan;
- Biodiversity Management Plan;
- Hazardous Substance/ Hydrocarbon Management Plan; and
- Traffic Management Plan.

### **3.1.2 Environmental Register**

An Environmental Register must be kept on site throughout all phases of the project in order to record environmental incidents, deviations from the EMPr by employees and complaints. The register must include the date of the incident and the measures taken to rectify it. The Register must be available for any party who wishes to investigate its contents. The Register may be kept by the Engineer’s/ Applicant’s representative or a suitable individual within the Contractor’s team.

### **3.2 Environmental Control Officer**

An Environmental Control Officer (ECO) must be appointed by the Engineer/ Applicant to assess (on a monthly basis during construction and every five (5) years in operational phase) the implementation of the EMPr on site. The Engineer/ Applicant may decide to assign this role to one person for all phases or may assign a different ECO for each phase. The ECO will have the following responsibilities:

- Managing and facilitating communication between the Applicant, Applicant/Engineer’s representative, contractors and Interested and Affected Parties (I&APs) with regard to this EMPr;
- Conducting monthly site inspections and audits during construction phase to assess the implementation of this EMPr on site;
- Conducting inspections and audits every 5 (five) years during operational phase to assess the implementation of this EMPr on site;

- Submitting audit reports to the Applicant and Competent Authority for review;
- Assisting the Contractor in finding solutions with respect to matters pertaining to the implementation of this EMPr;
- Advising the Applicant/Engineer's representative regarding the removal of person(s) and/or equipment not complying with the provisions of this EMPr;
- Making recommendations to the Applicant/Engineer's representative with respect to work stoppages or the issuing of fines for contraventions of the EMPr; and
- Continually reviewing the applicability of the EMPr and recommending additions and/or changes to this document.

## 4 ENVIRONMENTAL MANAGEMENT PLAN ACTIONS

### 4.1 Key Environmental Impacts

The following key impacts have been identified, based on a site visit, the DEA Online Screening Tool, a desktop review of the site, the Consultants previous experience with similar projects and the input of a heritage specialist:

#### 4.1.1 *Planning and Design Phase*

- Avoidable environmental harm resulting from unsuitable site designs or layout;
- Avoidable social impacts resulting from unsuitable site designs or layout;
- Illegal activities resulting from a lack of appropriate permitting;
- Social disturbance resulting from improper construction planning.

#### 4.1.2 *Construction Phase*

- Loss of or disturbance to vegetation and habitat;
- Loss of topsoil;
- Erosion of surrounding soil;
- Loss of threatened or protected species (TOPS), both floral and faunal;
- Introduction of alien invasive species (AIS);
- Soil and groundwater contamination from hydrocarbon/ hazardous substance spills;
- Impact on vehicular traffic;
- Increase in emissions of greenhouse gases by construction machinery/vehicles;
- Dust generation- disturbance to surrounding land owners/users;
- Noise generation- disturbance to surrounding land owners/users;
- Waste generation;
- Archaeological impacts if heritage sites are found on the project site; and
- Health and safety impacts of construction workers and surrounding land owners/users.

#### 4.1.3 *Operational Phase*

- Erosion of surrounding soil;
- Soil and groundwater contamination from vehicle oil spills;
- Soil and groundwater contamination from sewage leaks;
- Impact on vehicular traffic;

- Waste generation;
- Edge effects of development on surrounding open spaces; and
- Invasion of alien invasive species.

#### 4.1.4 *Decommissioning Phase*

- Loss of residential space;
- Soil and groundwater contamination from hydrocarbon/ hazardous substance spills;
- Impact on vehicular traffic;
- Increase in emissions of greenhouse gases by decommissioning machinery/vehicles;
- Dust generation- disturbance to surrounding land owners/users;
- Noise generation- disturbance to surrounding land owners/users;
- Waste generation; and
- Health and safety impacts of decommission team workers and surrounding land owners/users.

#### 4.1.5 *Cumulative and Latent Impacts*

- Loss of Soweto Highveld Grassland vegetation and habitat;
- Reduced landscape connectivity;
- Loss of open spaces in Gauteng; and
- Reduction in housing demand (positive).

These impacts are unavoidable; however, they will be mitigated as far as possible through implementation of mitigation/ management measures recommended for the above phases.

## 4.2 Environmental Opportunities

The environmental opportunities provided by this project can be maximized through implantation of the NEMA Sustainable Development Principles. Sustainable development can be achieved by addressing the current housing needs while still minimizing environmental harm, so that future generations may also benefit from environmental resources. The NEMA Principles require the following:

- Avoid, minimise or remedy ecosystem disturbance and biodiversity loss as far as possible;
- Avoid, minimise or remedy pollution and environmental degradation as far as possible;

- Avoid, minimise or remedy landscape disturbance and loss of cultural heritage as far as possible;
- Avoid, minimise, re-use or recycle waste where possible, otherwise dispose of waste in a responsible manner;
- Responsibly and equitably use/ exploit non-renewable natural resources in a manner which takes into account the consequences of the depletion of the resource;
- Apply a risk-averse and cautious approach which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- Anticipate and prevent, or minimise and remedy, negative impacts on the environment and environmental rights be anticipated and prevented.

In order to achieve sustainable development goals, use of alternatives that are technologically and environmentally superior to “standard” technologies should be investigated and promoted throughout the project lifecycle.

#### **4.3 Management Actions**

The following management actions of this EMPr (**Table 4.1**) have been developed in order to avoid the potential impacts listed above as far as possible. Where impacts cannot be avoided, measures are provided to mitigate for and reduce the significance of these impacts.

The Applicant’s signature on this document indicates that the Applicant acknowledges their responsibility to uphold the specific management actions detailed below.



**Table 4.1: EMP management actions throughout the project lifecycle.**

ASPECT	IMPACT	MANAGEMENT ACTIONS
<b>PLANNING AND DESIGN PHASE</b>		
Site design and layout	Avoidable environmental harm resulting from unsuitable site designs or layout	<ul style="list-style-type: none"> <li>• Site design/layout should minimise transformed spaces and ensure that the footprint is as small as possible</li> <li>• Site design must include indigenous garden patches in order to maintain some connectivity for insects, birds and reptiles</li> <li>• Gardens must contain insect-, bird- and reptile-friendly indigenous grass, bush and tree species</li> <li>• Floral TOPS must be identified prior to construction and accommodated by the site design or removed (to be placed in a nursery or other suitable habitat)</li> <li>• Large plant species (trees, bushes) must be left on site if and where possible</li> <li>• Stormwater designs must be appropriately designed so as to minimise erosion</li> </ul>
	Avoidable social impacts resulting from unsuitable site designs or layout	<ul style="list-style-type: none"> <li>• Site design/layout should include open spaces to avoid over-crowding</li> <li>• The site should be designed so as to minimise disturbance to residents in the area, as far as possible</li> </ul>
Construction planning	Social disturbance resulting from improper construction planning	<ul style="list-style-type: none"> <li>• Construction must be planned so as to minimise disturbance to the current residents of the area</li> <li>• At least two weeks prior to construction, residents should be warned of possible disturbances</li> <li>• The Engineer/Contractor must maintain open communication with the surrounding residents regarding the progress and timeframes of the project</li> <li>• The Contractor must record and repair any damage to neighbouring properties caused by construction activities</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
Relevant permitting	Illegal activities resulting from a lack of appropriate permitting	<ul style="list-style-type: none"> <li>• The EA and WUL must be in place prior to construction beginning</li> <li>• A permit in terms of NEM:BA must be in place should any TOPS need to be relocated or damaged (including trimmed)</li> <li>• A permit in terms of NHRA must be in place should any heritage artefacts need to be relocated</li> </ul>
<b>CONSTRUCTION PHASE</b>		
Environmental awareness	Lack of awareness may result in environmental harm and/or non-compliance to the EMPr/EA	<ul style="list-style-type: none"> <li>• Comprehensive induction of all employees on site, including an environmental section which outlines as a minimum the following:                             <ul style="list-style-type: none"> <li>○ Explanation of the importance of complying with the EMPr</li> <li>○ Discussion of the potential environmental impacts of development activities</li> <li>○ Employees' roles and responsibilities, including emergency preparedness</li> <li>○ Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities</li> <li>○ Importance of biodiversity</li> </ul> </li> <li>• Daily safety talks should include environmental topics (at least one environmental topic per week) to increase general and site-specific environmental awareness</li> </ul>
Monitoring of compliance	Lack of monitoring may result in environmental harm and/or non-compliance to the EMPr/EA	<ul style="list-style-type: none"> <li>• The construction site should be informally monitored on a continual basis by the Engineer/Applicant's representative to ensure compliance to the EMPr and thus reduce environmental harm</li> <li>• The Engineer/Applicant's representative should conduct weekly inspections of the site and implementation of the EMPr</li> <li>• Implementation of the EMPr and conditions of the EA must be formally monitored (audited) on a monthly basis by an appropriately qualified and experienced ECO</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
Vegetation clearance	Loss of or disturbance to vegetation and habitat	<ul style="list-style-type: none"> <li>• The clearance footprint should be kept as small as possible</li> <li>• The site must be clearly demarcated, and employees made aware to stay within its boundaries</li> <li>• Areas that are not intended for clearance must be appropriately marked and cordoned off as “no-go areas”</li> <li>• Construction machinery and vehicles to stay within site and on demarcated roads as far as practically possible</li> <li>• Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible</li> <li>• Floral species to be left on site must be appropriately marked and cordoned off to prevent damage</li> <li>• No fires are permitted on site</li> </ul>
	Loss of topsoil	<ul style="list-style-type: none"> <li>• Topsoil must be cleared and stored separately from subsoil and other excavated materials (e.g. rock)</li> <li>• Topsoil stockpiles should be no higher than 2 m tall</li> <li>• Topsoil should be stockpiled for the least amount of time before being reused on site for rehabilitation or moved to other sites for use</li> <li>• Topsoil stockpiles should be barricaded so as to prevent loss of topsoil through erosion</li> </ul>
	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>• The clearance footprint should be kept as small as possible</li> <li>• Any areas on site or on the edge of the site susceptible to erosion must be monitored and protected where necessary, through the use of silt fences or rock packing</li> </ul>
	Loss of threatened or protected species (TOPS), both floral and faunal	<ul style="list-style-type: none"> <li>• Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Floral species to be left on site must be appropriately marked and cordoned off to prevent damage</li> <li>• Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees</li> <li>• Permits must be in place if any plant TOPS will be removed, trimmed or relocated</li> <li>• Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery</li> <li>• No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site</li> <li>• Any snakes (or other animals) found on site may not be killed or harmed in any way, but may be removed safely by a professional snake handler or rehabilitation expert</li> <li>• No poisons are to be utilised on site</li> </ul>
	Introduction/ proliferation of AIS	<ul style="list-style-type: none"> <li>• Any plant AIS noted on site must be removed</li> <li>• Disturbed soils must be monitored for colonisation of plant AIS</li> <li>• Plant AIS must be removed from disturbed soils before seeding and disposed of with general waste</li> <li>• Animal AIS may not be dealt with using poison, but should be controlled through prevention measures (such as keeping waste areas clean) or biocontrol measures</li> </ul>
	Soil and groundwater contamination resulting from hydrocarbon leaks from clearing machinery/equipment	<ul style="list-style-type: none"> <li>• Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>• Servicing of machinery/equipment may only take place within a designated area which must be appropriately bunded and have an oil separation system in place</li> <li>• In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> <li>• Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Soil and groundwater contamination from hazardous substance spills</p>	<ul style="list-style-type: none"> <li>• All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area</li> <li>• Employees must be trained on appropriate hazardous substance management techniques</li> <li>• All hazardous substances utilised or stored on site must be accompanied by a Material Safety Data Sheet (MSDS) and employees must be trained in using these documents appropriately</li> <li>• Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills</li> <li>• A record of all spills must be kept on site</li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
	Impact on vehicular traffic from movement of clearing machinery	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver’s licenses</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> <li>• When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> <li>• Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	Increase in emissions of greenhouse gases by construction machinery/vehicles	<ul style="list-style-type: none"> <li>• Construction machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>• Use of car-pooling or public transport by employees must be encouraged</li> <li>• Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	Dust generation	<ul style="list-style-type: none"> <li>• Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust</li> <li>• Dust screens should be erected around working areas if and where practically possible</li> <li>• Employees must be provided with appropriate dust masks</li> </ul>
	Noise generation	<ul style="list-style-type: none"> <li>• Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities</li> <li>• Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>• Excessive noise from employees must be discouraged where possible</li> <li>• Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Waste generation	<ul style="list-style-type: none"> <li>• A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>• Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	<p>Destruction or partial destruction of non-renewable heritage resources</p>	<p>regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</p> <ul style="list-style-type: none"> <li>• While unlikely, should any chance-finds of graves or other archaeological artefacts occur, all work in the area is to be ceased immediately and the Chance Find Procedure as laid out in the Archaeological Impact Assessment report must be implemented:                             <ul style="list-style-type: none"> <li>○ If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager</li> <li>○ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area</li> <li>○ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA.</li> </ul> </li> <li>• If fossils are seen on the surface or during clearance/excavations:</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>○ When excavations begin the site must be given a cursory inspection by the Applicant/Engineer’s representative or designated person. Any fossiliferous material (stromatolites, microbially induced sedimentary structures) should be put aside in a suitably protected place (see Archaeological Impact Assessment report for examples)</li> <li>○ Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment</li> <li>○ If there is any possible fossil material found then the qualified palaeontologist sub-contracted for this project should visit the site to inspect the selected material and check the dumps where feasible</li> <li>○ Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits</li> <li>○ If no good fossil material is recovered then no site inspections by the palaeontologist will not be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils</li> </ul>
	Health and safety of construction workers	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• MSDSs for any hazardous substances are to be readily available on site</li> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>
Excavation and service structure installation	Loss of topsoil	<ul style="list-style-type: none"> <li>• Topsoil must be cleared and stored separately from subsoil and other excavated materials (e.g. rock)</li> <li>• Topsoil stockpiles should be no higher than 2 m tall</li> <li>• Topsoil should be stockpiled for the least amount of time before being reused on site for rehabilitation or moved to other sites for use</li> <li>• Topsoil stockpiles should be barricaded so as to prevent loss of topsoil through erosion</li> </ul>
	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>• The site footprint should be kept as small as possible</li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>Any areas on site or on the edge of the site susceptible to erosion must be monitored and protected where necessary, through the use of silt fences or rock packing</li> </ul>
	Loss of TOPS, both floral and faunal	<ul style="list-style-type: none"> <li>Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible</li> <li>Floral species to be left on site must be appropriately marked and cordoned off to prevent damage</li> <li>Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees</li> <li>Permits must be in place if any plant TOPS will be removed, trimmed or relocated</li> <li>Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery</li> <li>No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site</li> <li>Any snakes (or other animals) found on site may not be killed or harmed in any way, but may be removed safely by a professional snake handler or rehabilitation expert</li> <li>No poisons are to be utilised on site</li> </ul>
	Soil and groundwater contamination resulting from hydrocarbon leaks from excavators	<ul style="list-style-type: none"> <li>Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>Servicing of machinery/equipment may only take place within a designated area which must be appropriately bunded and have an oil separation system in place</li> <li>In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> <li>A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> <li>• Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Soil and groundwater contamination from hazardous substance spills</p>	<ul style="list-style-type: none"> <li>• All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area</li> <li>• Employees must be trained on appropriate hazardous substance management techniques</li> <li>• All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately</li> <li>• Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Impact on vehicular traffic from movement of excavators</p>	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver's license</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> <li>Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	Increase in emissions of greenhouse gases by construction machinery/vehicles	<ul style="list-style-type: none"> <li>Construction machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>Use of car-pooling or public transport by employees must be encouraged</li> <li>Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	Dust generation	<ul style="list-style-type: none"> <li>Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust</li> <li>Dust screens should be erected around working areas if and where practically possible</li> <li>Employees must be provided with appropriate dust masks</li> </ul>
	Noise generation	<ul style="list-style-type: none"> <li>Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities</li> <li>Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>Excessive noise from employees must be discouraged where possible</li> <li>Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	<p>Destruction or partial destruction of non-renewable heritage resources</p>	<ul style="list-style-type: none"> <li>• While unlikely, should any chance-finds of graves or other archaeological artefacts occur, all work in the area is to be ceased immediately and the Chance Find Procedure as laid out in the Archaeological Impact Assessment report must be implemented:                             <ul style="list-style-type: none"> <li>○ If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager</li> <li>○ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area</li> <li>○ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA.</li> </ul> </li> <li>• If fossils are seen on the surface or during clearance/excavations:                             <ul style="list-style-type: none"> <li>○ When excavations begin the site must be given a cursory inspection by the Applicant/Engineer’s representative or designated person. Any fossiliferous material (stromatolites, microbially induced sedimentary structures) should be put aside in a suitably protected place (see Archaeological Impact Assessment report for examples)</li> </ul> </li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>○ Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment</li> <li>○ If there is any possible fossil material found then the qualified palaeontologist sub-contracted for this project should visit the site to inspect the selected material and check the dumps where feasible</li> <li>○ Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits</li> <li>• If no good fossil material is recovered then no site inspections by the palaeontologist will not be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils</li> </ul>
	Health and safety	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• Deep excavations must be cordoned off and marked as such</li> <li>• Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site</li> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>
Paving, concreting and infrastructure development/building	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>• The site footprint should be kept as small as possible</li> <li>• Any areas on site or on the edge of the site susceptible to erosion must be monitored and protected where necessary, through the use of silt fences or rock packing</li> <li>• Concreted/paved areas must include suitable drainage and stormwater management systems to avoid erosion of the surrounding land, as per the stormwater management design</li> </ul>
	Loss of TOPS, both floral and faunal	<ul style="list-style-type: none"> <li>• Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible</li> <li>• Floral species to be left on site must be appropriately marked and cordoned off to prevent damage</li> <li>• Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees</li> <li>• Permits must be in place if any plant TOPS will be removed, trimmed or relocated</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery</li> <li>• No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site</li> <li>• Any snakes (or other animals) found on site may not be killed or harmed in any way, but may be removed safely by a professional snake handler or rehabilitation expert</li> <li>• No poisons are to be utilised on site</li> </ul>
	Introduction/ proliferation of AIS	<ul style="list-style-type: none"> <li>• Any plant AIS noted on site must be removed</li> <li>• Disturbed soils must be monitored for colonisation of plant AIS</li> <li>• Plant AIS must be removed from disturbed soils before seeding and disposed of with general waste</li> <li>• Animal AIS may not be dealt with using poison, but should be controlled through prevention measures (such as keeping waste areas clean) or biocontrol measures</li> </ul>
	Soil and groundwater contamination resulting from hydrocarbon leaks from concrete trucks and other construction machinery/ vehicles	<ul style="list-style-type: none"> <li>• Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>• Servicing of machinery/equipment may only take place within a designated area which must be appropriately bunded and have an oil separation system in place</li> <li>• In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> <li>• Concrete trucks must be sourced from a reputable contractor who ensures that trucks are well-maintained to ensure that no preventable leakages occur</li> <li>• A drip tray is to be placed under any potentially leaking elements of concrete trucks while they unload concrete</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> <li>• Fully stocked spill kits must be available in strategic positions on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> <li>• A record of all spills must be kept on site</li> </ul>
	Soil and groundwater contamination from concrete/cement spills	<ul style="list-style-type: none"> <li>• If concrete is being delivered, it must be deposited on an area that is going to be laid with concrete (i.e. not on other areas where bare soil will remain)</li> <li>• If concrete is mixed on site, this must take place on an area that is going to be laid with concrete (i.e. not on other areas where bare soil will remain)</li> <li>• Concrete and cement must be adequately contained and prevented from spilling onto bare soil areas or into the road</li> </ul>
	Soil and groundwater contamination from other hazardous substance spills	<ul style="list-style-type: none"> <li>• All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area</li> <li>• Employees must be trained on appropriate hazardous substance management techniques</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately</li> <li>• Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills</li> <li>• A record of all spills must be kept on site</li> </ul>
	Impact on vehicular traffic from concrete truck movement	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver's license</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> <li>• When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> <li>• Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	Increase in emissions of greenhouse gases by construction machinery/vehicles	<ul style="list-style-type: none"> <li>• Construction machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>• Use of car-pooling or public transport by employees must be encouraged</li> <li>• Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	Cement dust generation	<ul style="list-style-type: none"> <li>• Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne cement dust</li> <li>• Dust screens should be erected around areas where raw cement (i.e. not wet concrete) is being utilised, where possible</li> <li>• Employees must be provided with appropriate dust masks to reduce inhalation of cement particles</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Noise generation	<ul style="list-style-type: none"> <li>• Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities</li> <li>• Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>• Excessive noise from employees must be discouraged where possible</li> <li>• Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>• A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>• Waste cement must be removed as building rubble, by a licensed contractor/service provider and disposed of at the nearest appropriately licensed facility</li> <li>• Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</li> </ul>
	Health and safety	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>
Rehabilitation	Loss of topsoil	<ul style="list-style-type: none"> <li>• Topsoil which was stockpiled during vegetation stripping should be placed in areas where vegetation will be grown</li> <li>• Newly topsoiled areas should be revegetated as soon as possible, using indigenous (and endemic, if possible) plant species</li> <li>• Topsoil should be placed last, after subsoil layers have been replaced</li> <li>• In areas with a high risk of erosion, topsoil should be protected with additional measures such as biodegradable soil blankets until vegetation has re-established</li> </ul>
	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>• The rehabilitated areas should blend into the surrounding vegetation so as to discourage erosion</li> <li>• The stormwater management plan must be properly implemented on site</li> <li>• There should be no harsh transition zones between the developed areas and the rehabilitated or surrounding areas, to prevent increased surface water runoff speed and resultant erosion</li> </ul>
	Loss of TOPS, both floral and faunal	<ul style="list-style-type: none"> <li>• Floral species left on site must be appropriately marked and cordoned off to prevent damage during topsoiling and revegetation activities</li> <li>• Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Any TOPS which were temporarily removed from site protected in a suitable nursery must be placed back on site in suitable areas and must be monitored for at least three months or until successfully re-established on site</li> <li>• No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site</li> <li>• Any snakes (or other animals) found on site may not be killed or harmed in any way, but may be removed safely by a professional snake handler or rehabilitation expert</li> <li>• No poisons are to be utilised on site</li> </ul>
	Introduction/ proliferation of AIS	<ul style="list-style-type: none"> <li>• Any plant AIS noted on site must be removed</li> <li>• Rehabilitated areas must be monitored for colonisation of plant AIS</li> <li>• Plant AIS must be removed before seeding and disposed of with general waste</li> <li>• Animal AIS may not be dealt with using poison, but should be controlled through prevention measures (such as keeping waste areas clean) or biocontrol measures</li> </ul>
	Soil and groundwater contamination from hydrocarbon spills from rehabilitation machinery/ vehicles	<ul style="list-style-type: none"> <li>• Rehabilitation machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>• Servicing of machinery/equipment may only take place within a designated area which must be appropriately bunded and have an oil separation system in place</li> <li>• In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> <li>• A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Soil and groundwater contamination from hazardous substance spills</p>	<ul style="list-style-type: none"> <li>• All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area</li> <li>• Employees must be trained on appropriate hazardous substance management techniques</li> <li>• All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately</li> <li>• Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Impact on vehicular traffic from rehabilitation machinery/ vehicle movement</p>	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver's license</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> <li>• When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles	<ul style="list-style-type: none"> <li>• Rehabilitation machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>• Use of car-pooling or public transport by employees must be encouraged</li> <li>• Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	Dust generation	<ul style="list-style-type: none"> <li>• Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust</li> <li>• Dust screens should be erected around working areas if and where practically possible</li> <li>• Employees must be provided with appropriate dust masks</li> </ul>
	Noise generation	<ul style="list-style-type: none"> <li>• Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities</li> <li>• Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>• Excessive noise from employees must be discouraged where possible</li> <li>• Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>• A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>• Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</li> </ul>
	<p>Health and safety impacts of rehabilitation team and surrounding land owners/users</p>	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• Deep excavations must be cordoned off and marked as such</li> <li>• Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site</li> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>
Emergencies/Incidents	Incidents/Emergencies could impact health and safety or the environment	<ul style="list-style-type: none"> <li>• All incidents and emergencies should be dealt with in line with the Emergency Response Plan for the site</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> <li>• Environmental incidents must be reported to GDARD</li> </ul>
<b>OPERATIONAL PHASE</b>		
Environmental Awareness	Lack of awareness may result in environmental harm and/or non-compliance to the EMPr/EA	<ul style="list-style-type: none"> <li>• Comprehensive induction of all employees on site, including an environmental section which outlines as a minimum the following:                             <ul style="list-style-type: none"> <li>○ Explanation of the importance of complying with the EMPr</li> </ul> </li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>○ Discussion of the potential environmental impacts of development activities</li> <li>○ Employees' roles and responsibilities, including emergency preparedness</li> <li>○ Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities</li> <li>○ Importance of biodiversity</li> <li>● Daily safety talks should include environmental topics (at least one environmental topic per week) to increase general and site-specific environmental awareness</li> </ul>
Monitoring of Compliance	Lack of monitoring may result in environmental harm and/or non-compliance to the EMPr/EA	<ul style="list-style-type: none"> <li>● The operation should be informally monitored on a continual basis by the Applicant's representative or Site Manager to ensure compliance to the EMPr</li> <li>● Implementation of the EMPr and conditions of the EA must be formally monitored (audited) every five (5) years by an appropriately qualified and experienced ECO</li> </ul>
Occupation of residential structures and use of service infrastructure	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>● Areas susceptible to erosion (such as near smooth, hard surfaces) must be monitored</li> <li>● Where necessary, erosion protection measures or stormwater management measures must be adapted to reduce erosion around the site</li> </ul>
	Soil and groundwater contamination from sewage leaks	<ul style="list-style-type: none"> <li>● Sewage leaks must be immediately reported and repaired so as to prevent long-term environmental harm</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>● Waste must be appropriately managed by the municipality including timeous removal and disposal in appropriate waste disposal sites</li> <li>● Residents must be encouraged not to litter</li> </ul>
	Edge effects of development on surrounding open spaces	<ul style="list-style-type: none"> <li>● Surrounding natural spaces must be protected as far as possible by measures such as:                             <ul style="list-style-type: none"> <li>○ Prevention of illegal dumping</li> <li>○ Provision of designated pathways</li> </ul> </li> </ul>
	Invasion/ proliferation of alien invasive species	<ul style="list-style-type: none"> <li>● Plant AIS must be removed before seeding to prevent uncontrolled spread into surrounding natural areas</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>Animal AIS may not be controlled with poison but should be prevented from proliferating through appropriate waste management techniques or controlled using biocontrol methods</li> </ul>
Use of roads	Soil and groundwater contamination from vehicle oil spills	<ul style="list-style-type: none"> <li>All vehicle repairs and services must take place on sealed surfaces</li> </ul>
	Impact on vehicular traffic	<ul style="list-style-type: none"> <li>Roads must be appropriately marked and signposted to avoid confusion</li> <li>Roads should be appropriately developed to help reduce congestion as far as possible</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>Roadside waste bins must be provided and emptied regularly</li> <li>Residents must be encouraged not to litter</li> </ul>
Stormwater Management	Soil and groundwater contamination from improper management of effluent	<ul style="list-style-type: none"> <li>The Stormwater Management Plan must be correctly implemented on site and must be adapted where necessary to site conditions</li> <li>Stormwater must be channelled into a properly constructed drainage system</li> <li>Drains must be regularly inspected for a build up of debris (e.g. litter or leaves) and appropriately cleared</li> <li>No fuels must be allowed to discharge directly into stormwater pipes, drains, sewage manholes/pipes</li> </ul>
Emergencies/Incidents	Incidents/Emergencies could impact health and safety or the environment	<ul style="list-style-type: none"> <li>All incidents and emergencies should be dealt with in line with the Emergency Response Plan for the site</li> <li>A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> <li>Environmental incidents must be reported to GDARD</li> </ul>
<b>DECOMMISSIONING PHASE</b>		
	Loss of housing	<ul style="list-style-type: none"> <li>Alternative options must be in place to provide safe housing for displaced residents</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
Demolition of residential space and decommissioning of service infrastructure	Soil and groundwater contamination resulting from hydrocarbon leaks from demolition machinery/equipment	<ul style="list-style-type: none"> <li>• Demolition machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>• No servicing of machinery/equipment take place on site</li> <li>• In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> <li>• A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> <li>• Fully stocked spill kits must be available in strategic positions on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> </ul>
	Impact on vehicular traffic from movement of demolition machinery	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver's license</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> <li>• When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles	<ul style="list-style-type: none"> <li>• Demolition machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>• Use of car-pooling or public transport by employees must be encouraged</li> <li>• Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	Dust generation	<ul style="list-style-type: none"> <li>• Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised to reduce airborne dust</li> <li>• Dust screens should be erected around working areas if and where practically possible</li> <li>• Employees must be provided with appropriate dust masks</li> </ul>
	Noise generation	<ul style="list-style-type: none"> <li>• Notices must be erected prior to demolition, forewarning residents of activities</li> <li>• Demolition must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>• Excessive noise from employees must be discouraged where possible</li> <li>• Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>
	Waste generation	<ul style="list-style-type: none"> <li>• A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>• Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> <li>• The reuse/recycling of building rubble must be explored and undertaken where possible</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Non-reusable or recyclable building rubble must be removed by a licensed contractor/service provider and disposed of at the nearest appropriately licensed facility</li> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</li> </ul>



ASPECT	IMPACT	MANAGEMENT ACTIONS
	Health and safety of construction workers	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• MSDSs for any hazardous substances are to be readily available on site</li> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>
Rehabilitation	Loss of topsoil	<ul style="list-style-type: none"> <li>• Newly topsoiled areas should be revegetated as soon as possible, using indigenous (and endemic, if possible) plant species</li> <li>• Topsoil should be placed last, after subsoil layers have been replaced</li> <li>• In areas with a high risk of erosion, topsoil should be protected with additional measures such as biodegradable soil blankets until vegetation has re-established</li> </ul>
	Erosion of surrounding soil	<ul style="list-style-type: none"> <li>• The rehabilitated areas should blend into the surrounding vegetation so as to discourage erosion</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Loss of TOPS, both floral and faunal	<ul style="list-style-type: none"> <li>• Floral species on site must be appropriately marked and cordoned off to prevent damage during topsoiling and revegetation activities</li> <li>• Plant species on site may not be used as fence posts or to hang bags, store waste or as latrines by employees</li> <li>• No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site</li> <li>• Any snakes (or other animals) found on site may not be killed or harmed in any way, but may be removed safely by a professional snake handler or rehabilitation expert</li> <li>• No poisons are to be utilised on site</li> </ul>
	Introduction/ proliferation of AIS	<ul style="list-style-type: none"> <li>• Any plant AIS noted on site must be removed</li> <li>• Rehabilitated areas must be monitored for colonisation of plant AIS</li> <li>• Plant AIS must be removed before seeding and disposed of with general waste</li> <li>• Animal AIS may not be dealt with using poison, but should be controlled through prevention measures (such as keeping waste areas clean) or biocontrol measures</li> </ul>
	Soil and groundwater contamination from hydrocarbon spills from rehabilitation machinery/ vehicles	<ul style="list-style-type: none"> <li>• Rehabilitation machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur</li> <li>• Servicing of machinery/equipment may only take place within a designated area which must be appropriately bunded and have an oil separation system in place</li> <li>• In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used</li> <li>• A drip tray is to be placed under any potentially leaking elements of any machinery/equipment that is not in use or being stored on site</li> <li>• Drip trays must be in good condition (i.e. no holes and not bent or flattened)</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• All employees are to be trained in proper spill management techniques and drilled quarterly</li> <li>• Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements</li> <li>• Should hydrocarbons spill on to the ground, the spill should immediately be contained and managed. Contaminated soil must be excavated to the depth of the spill</li> <li>• Any contaminated material (including excavated soil) must be disposed of in an appropriately labelled and sealed container, then transported by a licensed service provider to a licensed hazardous waste disposal facility</li> <li>• Significant spills must be reported to GDARD</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Soil and groundwater contamination from hazardous substance spills</p>	<ul style="list-style-type: none"> <li>• All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area</li> <li>• Employees must be trained on appropriate hazardous substance management techniques</li> <li>• All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately</li> <li>• Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills</li> <li>• A record of all spills must be kept on site</li> </ul>
	<p>Impact on vehicular traffic from rehabilitation machinery/ vehicle movement</p>	<ul style="list-style-type: none"> <li>• All operators and drivers must possess the appropriate driver's license</li> <li>• Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• When large machinery is moving near the roads or entering the traffic stream, an appropriately visible flag person must be stationed next to the road to warn traffic of heavy moving vehicles</li> <li>• Heavy machinery/vehicles should not be parked within the road or on the road verge</li> </ul>
	<p>Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles</p>	<ul style="list-style-type: none"> <li>• Rehabilitation machinery and vehicles should be kept to a minimal as far as practically possible</li> <li>• Use of car-pooling or public transport by employees must be encouraged</li> <li>• Volumes of petrol and diesel usage should be recorded in order to report on emission data</li> </ul>
	<p>Dust generation</p>	<ul style="list-style-type: none"> <li>• Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust</li> <li>• Dust screens should be erected around working areas if and where practically possible</li> <li>• Employees must be provided with appropriate dust masks</li> </ul>
	<p>Noise generation</p>	<ul style="list-style-type: none"> <li>• Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities</li> <li>• Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays)</li> <li>• Excessive noise from employees must be discouraged where possible</li> <li>• Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery</li> </ul>
	<p>Waste generation</p>	<ul style="list-style-type: none"> <li>• A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents</li> <li>• Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
		<ul style="list-style-type: none"> <li>• Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal</li> <li>• Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams</li> <li>• An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site</li> <li>• Waste bins should be periodically inspected to ensure they are not overflowing</li> <li>• When waste bins are full, waste should be disposed of in appropriately separated, labelled tips</li> <li>• Tips should be periodically serviced to ensure they do not overflow</li> <li>• Tips must be serviced by a licensed service provider</li> <li>• Waste must be disposed of in a licenced and appropriate waste disposal sites (i.e. hazardous waste must go a licenced hazardous waste site, recycling must go to a licenced recycling depot and non-recyclable general waste must go to municipal landfill site)</li> <li>• Volumes of waste removed must be monitored and reduced where possible</li> <li>• No waste may be buried or burned on site or anywhere else</li> <li>• An appropriate number of chemical toilets must be provided for employees (at least one (1) per ten (10) employees), must be the only sites used for ablutions by employees, must be secured with rope or otherwise tied down and must be emptied regularly (at least twice a week) by a licensed service provider to prevent bad odours or spillages</li> </ul>

ASPECT	IMPACT	MANAGEMENT ACTIONS
	<p>Health and safety impacts of rehabilitation team and surrounding land owners/users</p>	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA</li> <li>• Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan</li> <li>• Daily health and safety training must be undertaken to ensure employees remain vigilant</li> <li>• Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves</li> <li>• An Emergency Response Plan must be available on site at all times</li> <li>• Unsafe work areas should be identified and marked as such</li> <li>• Deep excavations must be cordoned off and marked as such</li> <li>• Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site</li> <li>• Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required</li> <li>• A fully stocked first aid kit must be available on site at all times</li> <li>• A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times</li> </ul>



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#### 4.4 Consequences of Non-Adherence to the EMPr

As outlined in Section 3.1, the Engineer/ Applicant's representative or the ECO may issue fines should any employee not adhere to the conditions within this EMPr. Fines may be recommended by the ECO but must be imposed by the Engineer's representative. Should an employee be suspected of this, a thorough investigation into the incident must take place. Should the employee be found guilty, this must be recorded in the environmental register, along with the corrective action taken.

##### 4.4.1 Spot Fines

Spot fines may be issued on the following basis:

- Littering on site: R50 (first offence) or R250 (further offences);
- Burning waste on site: R250 (first offence) or R1000 (further offences);
- Illegal dumping of waste: R250 (first offence) or R1000 (further offences);
- Violation of a Method Statement: R250 (first offence) or R1000 (further offences); and
- Damage to flora/fauna: R250 (first offence) or R1000 (further offences).

Should the fines not be paid within 14 days of issuance, the Engineer/ Applicant's representative may issue a "Stop Works" order.

##### 4.4.2 Penalty Fines

Should the Contractor repeatedly fail to comply with the conditions within this EMPr or cause high-impact damage to the environment, a penalty fine may be payable as follows:

- Ongoing littering: R2500 plus rehabilitation costs;
- Ongoing illegal dumping: R10000 plus rehabilitation costs;
- Ongoing burning of waste on site: R10000 plus rehabilitation costs;
- Ongoing violation of a Method Statement: R10000 plus rehabilitation costs;
- Ongoing damage to flora/fauna: R10000 plus rehabilitation costs;
- Irreparable damage to the environment: R10000 plus rehabilitation costs; and
- Killing/injury of any wildlife or TOPS: R5000.

## 5 CONCLUSION

This EMPr contains practical mitigation measures for all activities that will occur throughout the lifecycle of this project. Should the measures provided within this EMPr be implemented effectively, environmental impacts will be mitigated as far as possible. In signing this EMPr, the developer accepts responsibility to ensure the measures outlined above are implemented.

## 6 REFERENCE LIST

GCS Water and Environment Consultants, 2021. Wetland Assessment for the Evaton West - I Housing Project on the Remainder of Erf 14540, Extension 7 in the Emfuleni Local Municipality.

Heritage Contracts and Archaeological Consulting, 2020. Heritage Impact Assessment.

Mucina, L. and Rutherford, M.C. 2006. The vegetation of South Africa, Lesotho and Swaziland. South African National Biodiversity Institute.

Phumaf Holdings, 2020. Traffic Impact and Access Study Report.

Sedibeng, 2012. Growth and Development Strategy 2. Accessed from:  
[http://www.sedibeng.gov.za/gds2/gds2\\_home.html](http://www.sedibeng.gov.za/gds2/gds2_home.html).

**APPENDIX A**

Curriculum Vitae of Environmental Assessment Practitioner (EAP)



**APPENDIX B**  
**Generic Method Statement**



### Generic Method Statement

Information pertaining to activity which will be undertaken:

What activity will take place?
How will the activity be undertaken (methods)?
Machinery/plant/equipment or vehicles which will be needed?
Materials required and relevant hazard status?
Where on site will activity take place and what will the extent of the activity be?
Timeframes of activity (start and end dates)?

Impact and Risk Assessment of the Activity:

Impact sources	
Receptors	
Objective	
Risks	
Notes	

The following signatures represent a binding agreement to the Method Statement and EMPr by all Contractors and Sub-Contractors involved in the above activity.

Role	Name	Company	Date	Signature
Client				
Engineer/Applicant's representative				
Contractor				
ECO				