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Final Scoping Report
Unitas Park – Extension 16

Version – Final

February 2021

Phumaf Engineering Solutions

GCS Project Number: 19.0921

Client Reference: 034RFP/7001/2019

GDARD Reference: 002/20-21/E0042

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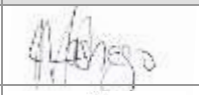
Author	Lehlogonolo Mashego		February 2021
Unit Manager	Gerda Bothma		February 2021

EXECUTIVE SUMMARY

Background

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). Phumaf Holdings (Pty) Ltd (Phumaf) was appointed as the responsible Engineers to undertake all preliminary planning, planning, design and construction management to enable the release of the identified stands. As part of the GRLRP, the Unitas Park Extension 16 Development has been identified for implementation.

GCS Water and Environmental Consultants (Pty) Ltd (GCS) has been appointed by Phumaf to undertake the environmental authorisation and associated Public Participation Processes (PPP) required for the individual projects 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).

Project Description

The site was originally planned to have a township layout, with 2680 residential erven, two primary and one high school, three social/commercial facility erven and three open space erven. This layout was approved; however, not proclaimed or registered as this "standard layout" did not accommodate different residential densities and it did not comply with the latest environmental and geotechnical requirements. The new strategy for this site is a proposed 7 250 units comprising of mixed high density and to achieve the proposed yield, the existing layout will have to be withdrawn and a new application submitted.

The area is currently zoned as agriculture on a dolomitic zone in terms of Geophysics. The site is approximately 149 hectares in extent and is owned by the Gauteng Provincial Government. The proposed site is currently vacant, with immediate adjacent land portions also being vacant. There is evidence of watercourses on the site, as well as to the south east of the site. A drainage line appears to run from the site towards Houtkop Road to the south west, where the surface water drains under the road and continues to flow into a National Freshwater Ecosystem Protection Area (NFEPA). The buffer of the NFEPA includes a portion of the south west of the site.

The proposed project entails the phased establishment of a mixed use residential development inclusive of the following land uses: low, medium and high density residential; student village; mixed use; innovation hub; social/educational; public open space and sports facility.

Due to capacity constraints identified during the preliminary investigations, the applicant is proposing to include an on-site above ground biological wastewater treatment facility (WWTF) as part of the proposed development. it is envisaged that the proposed WWTF will be designed and constructed in a phased manner, directly aligned with the capacity demand of the implementation of the phased development. The final design of the proposed steel

tank aboveground biological WWTF is estimated to treat to general discharge standards with a combined peak capacity of 20Ml/day (with these being phased in two stages of 10Ml/day respectively).

Scoping and Environmental Impact Assessment Process

A S&EIR process has two distinct phases: The Scoping Phase and the Environmental Impact Reporting Phase. This report, the Draft Scoping Report (DSR) identifies potential biophysical, social and health aspects and impacts of the proposed development on the receiving environment and invites comments from stakeholders in the identification of key issues and areas of concern, in order to inform the S&EIR process. The main objectives of the Scoping Phase are as follows:

- Provide a description of the proposed project, including the legislative context and project motivation;
- Identify and describe applicable alternatives to the proposed project;
- Identify and describe the anticipated environmental, social, economic and cultural impacts, including cumulative impacts, associated with the proposed development and outline key issues and Specialist Studies, included within the S&EIR process to assess these issues in further detail;
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored;
- Describe the methodology applied to conduct the scoping phase;
- Describe the process of engagement with identified stakeholders, including their views and concerns; and
- Describe the Plan of Study for the Environmental Impact Reporting (EIR) Process (second phase of the S&EIR process), which describes the nature and extent of further investigations required in the EIR phase.

The Scoping Phase concludes with the compilation and submission of a Scoping Report to the Competent Authority for acceptance. If accepted, the Competent Authority will instruct GCS to commence the EIR Phase. This report represents the draft version of the Scoping Report that will be made available for public comment.

As per the requirements of the NEMA EIA Regulations (2017) GNR 326, this DSR has been issued for public participation in terms of GNR 326, Regulation 41(b)).

All interested & affected parties are required to register as a Stakeholder in order to enable them to comment during this Public Participation Process (PPP). This PPP provides an opportunity to comment and raise any concerns or suggestions in respect of the Project.

All comments received during the PPP will be recorded and addressed within the Scoping Comments and Responses Report as well as the EIR Phase of the project.

This DSR was available for comment for 30 calendar days from 15 January 2021 until 15 February 2021, as stipulated by the NEMA EIA Regulations (2017).

Summary of what this Final Scoping Report entails and details:

- Details of the Environmental Assessment Practitioner (EAP);
- Location of the proposed development;
- Plan which locates the proposed activity or activities applied for at an appropriate scale;
- Description of the scope of the proposed activity;
- Description of the policy and legislative context applicable to the proposed development;
- Description of the need and desirability for the proposed development;
- Description of the potential environmental issues and impacts which have been identified to date;
- Full description of the process followed to reach the proposed preferred activity, site and location within the site;
- A Plan of Study (POS) detailing the tasks and specialist studies that will be undertaken during the Impact Assessment Phase; and
- Undertakings under oath or affirmation by the Environmental Assessment Practitioner (EAP).

Public Participation Process

All comments which will be received during the integrated application process will be captured in a Comments and Responses Report (CRR). The CRR will be updated on a continuous basis and will be presented to the authorities and other I&APs together with the consultation and final reports as a full record of issues raised, including responses on how the issues were considered during the integrated application process.

The Draft Scoping Report (DSR) was made available to all registered I&APs for public review and comment from **15 January 2021** (comment period ending **15 February 2021**). I&AP's were notified of the availability of the DSR for review. Copies was be available for download from the GCS website: www.gcs-sa.biz.

The availability of the DSR was announced through advertisements and personal emails, notices at selected sites and notification letters to I&APs. A record of the comments received thus far is included as part of the CRR, which is available with this Final Scoping Report.

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Details of – i. The EAP who prepared the report; and ii. The expertise of the EAP, including a curriculum vitae	Section 1.3 and Appendix B
The location of the activity, including – i. The 21 digit Surveyor General code for each cadastral land parcel; ii. Where available, the physical address and farm name; iii. Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section 1.4
A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – i. A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or ii. On land where the property has not been defined, the coordinates within which the activity is to be undertaken	Section 1.4
A description of the scope of the proposed activity, including – i. All listed and specified activities triggered; ii. A description of the activities to be undertaken, including associated structures and infrastructure;	Section 1.6
A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process	Section 1.5
A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location	Section 1.8**Error! Reference source not found.**
A full description of the process followed to reach the proposed preferred activity, site and location within the site, including – i. Details of all alternatives to be considered; ii. Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; iii. A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them; iv. The environmental attributes associated with the alternatives focusing on geographical, physical, biological, social, economic, heritage and cultural aspects; v. The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts - aa. can be reversed; bb. may cause irreplaceable loss of resources; and cc. can be avoided, managed or mitigated; vi. The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives; vii. Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; viii. The possible mitigation measures that could be applied and level of residual risk; ix. The outcome of the site selection matrix;	Sections 1 - 5, Section 7

x. If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and xi. A concluding statement indicating the preferred alternatives, including preferred location of the activity	
A plan of study for undertaking the environmental impact assessment process to be undertaken, including – i. A description of the alternatives to be considered and assessed with the preferred site, including the option of not proceeding with the activity; ii. A description of the aspects to be assessed as part of the environmental impact assessment process; iii. Aspects to be assessed by specialists; iv. A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists; v. A description of the proposed method of assessing duration and significance; vi. An indication of the stages at which the competent authority will be consulted; vii. Particulars of the public participation process that will be conducted during the environmental impact assessment process; and viii. A description of the tasks that will be undertaken as part of the environmental impact assessment process; ix. Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored	Section 6
An undertaking oath or affirmation by the EAP in relation to – i. The correctness of the information provided in the report; ii. The inclusion of comments and inputs from stakeholders and interested and affected parties; and iii. Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties;	Section 11
An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;	Section 11
Where applicable, any specific information required by the competent authority; and	N/A
Any other matter required in terms of section 24(4)(a) and (b) of the Act.	N/A

1 BACKGROUND AND INTRODUCTION

1.1 Background

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). Phumaf Holdings (Pty) Ltd (Phumaf) was appointed as the responsible Engineers to undertake all preliminary planning, planning, design and construction management to enable the release of the identified stands. As part of the GRLRP, the Unitas Park Extension 16 Development has been identified for implementation.

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1.2 Brief Project Description

The site was originally planned to have a township layout, with 2680 residential erven, two primary and one high school, three social/commercial facility erven and three open space erven. This layout was approved; however, not proclaimed or registered as this "standard layout" did not accommodate different residential densities and it did not comply with the latest environmental and geotechnical requirements. The new strategy for this site is a proposed 7 250 units comprising of mixed high density and to achieve the proposed yield, the existing layout will have to be withdrawn and a new application submitted.

The area is currently zoned as agriculture on a dolomitic zone in terms of Geophysics. The site is approximately 149 hectares in extent and is owned by the Gauteng Provincial Government. The proposed site is currently vacant, with immediate adjacent land portions also being vacant. There is evidence of watercourses on the site, as well as to the south east of the site. A drainage line appears to run from the site towards Houtkop Road to the south west, where the surface water drains under the road and continues to flow into a National Freshwater Ecosystem Protection Area (NFEPA). The buffer of the NFEPA includes a portion of the south west of the site.

The proposed project entails the phased establishment of a mixed use residential development inclusive of the following land uses: low, medium and high density residential; student village; mixed use; innovation hub; social/educational; public open space and sports facility. (refer to Figure 1-1 below for the draft proposed layout)

Due to capacity constraints identified during the preliminary investigations, the applicant is proposing to include an on-site above ground biological wastewater treatment facility (WWTF) as part of the proposed development. it is envisaged that the proposed WWTF will be designed and constructed in a phased manner, directly aligned with the capacity demand of the implementation of the phased development. The final design of the proposed steel tank aboveground biological WWTF is estimated to treat to general discharge standards with a combined peak capacity of 20Ml/day (with these being phased in two stages of 10Ml/day respectively). (refer to Figure 1-2 for an illustration of a typical aboveground WWTF).

This final effluent is guaranteed to be within general limits as required from the Department of Water and Sanitation (DWS), which is suitable for discharge into reservoirs and water bodies with no potential for environmental damage. The proposed final water usage is envisaged for irrigation and/or environmental discharge.

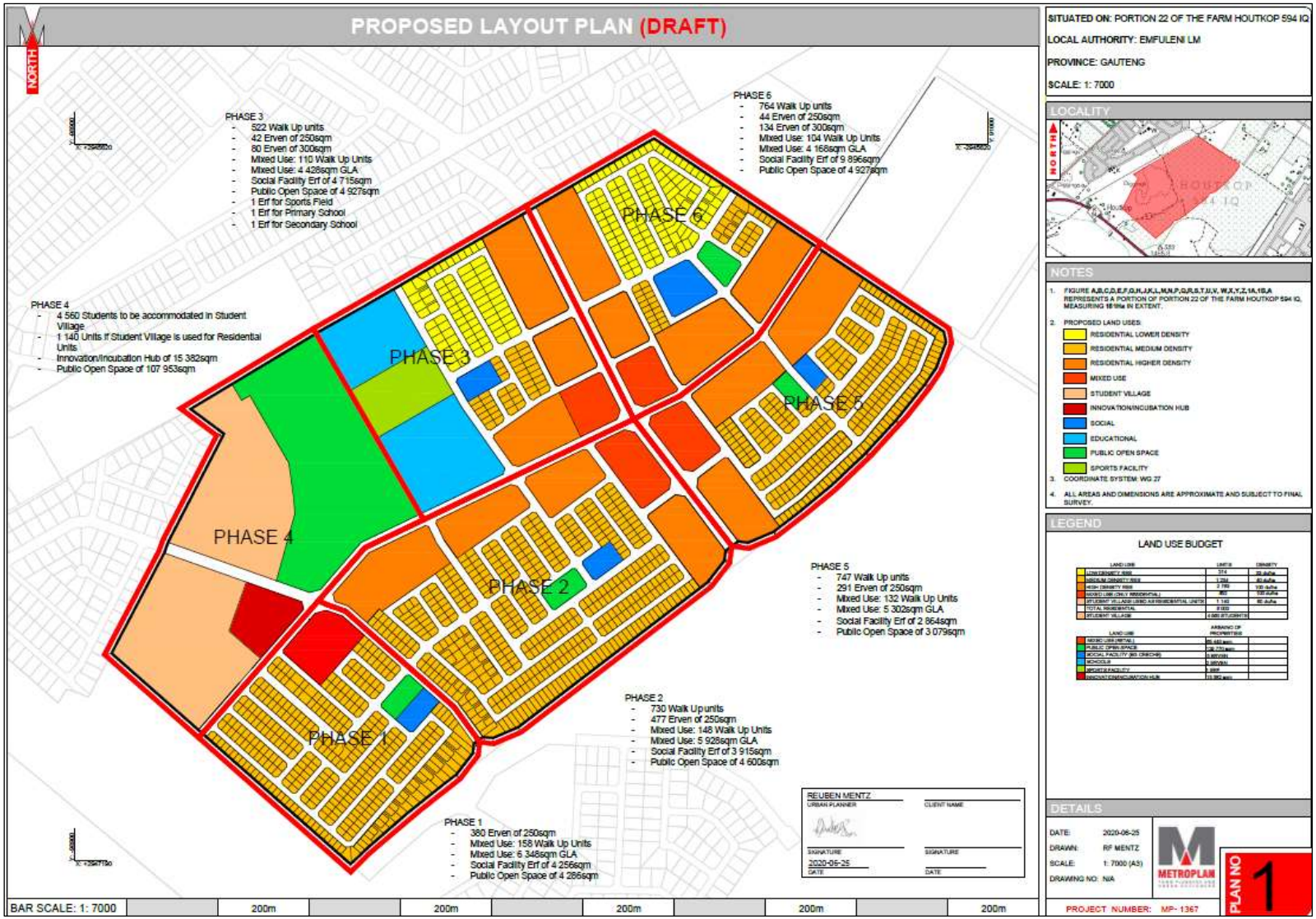


Figure 1-1 Proposed Draft Layout

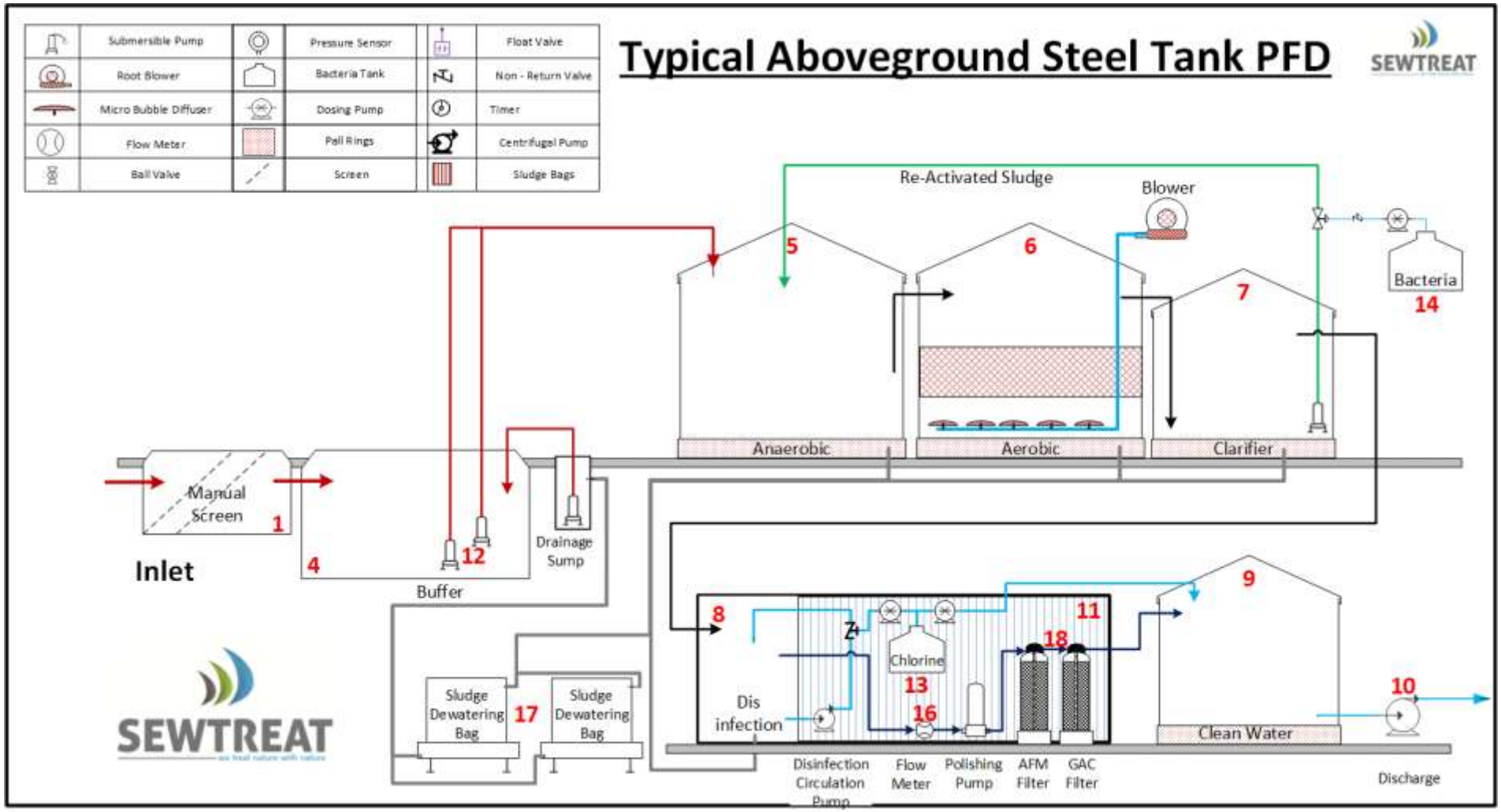


Figure 1-2 Typical Aboveground Steel Tank WWTF

1.3 Details of the Applicant and EAP

The details of the applicant are provided in Table 1.1.

Table 1.1: Name and Address of Applicant

ITEM	COMPANY CONTACT DETAILS
Company Name:	Department of Human Settlements – Gauteng Provincial Government
Company Representative:	Daniel Molokomme
Telephone No.:	011 085 2593
Facsimile No.:	011 355 6211
E-mail Address:	Daniel.Molokomme@gauteng.gov.za
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 1.2.

Table 1.2: Name and address of environmental assessment practitioner.

ITEM	COMPANY CONTACT 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

1.4 Project Location

The area is located within Unitas Park, Vereeniging within the Sedibeng District Municipality and Emfuleni Local Municipality, 6 km north-west of the Vereeniging central business district (CBD), sandwiched between roads R54 and R42. The R82 is runs north-south approximately 2.3km to the east of the site. The N1 is about 11 km to the west of the site and R54 runs through the site. Sebokeng lies to the north west of the site, with Vereeniging to the south east. The closest towns include Homer (3.1 km from the proposed site), Roods Gardens (3.3 km from the proposed site), Steelpark (4.9 km from the proposed site), Vereeniging (8.8 km from the proposed site) and Houtkop (9.6 km from the proposed site). Access to the site is via Skippie Botha and Langraad Roads and the predominant adjacent land use is residential and agricultural. Refer to **Figure 1-3** and **Figure 1-5** for the locality of the site.

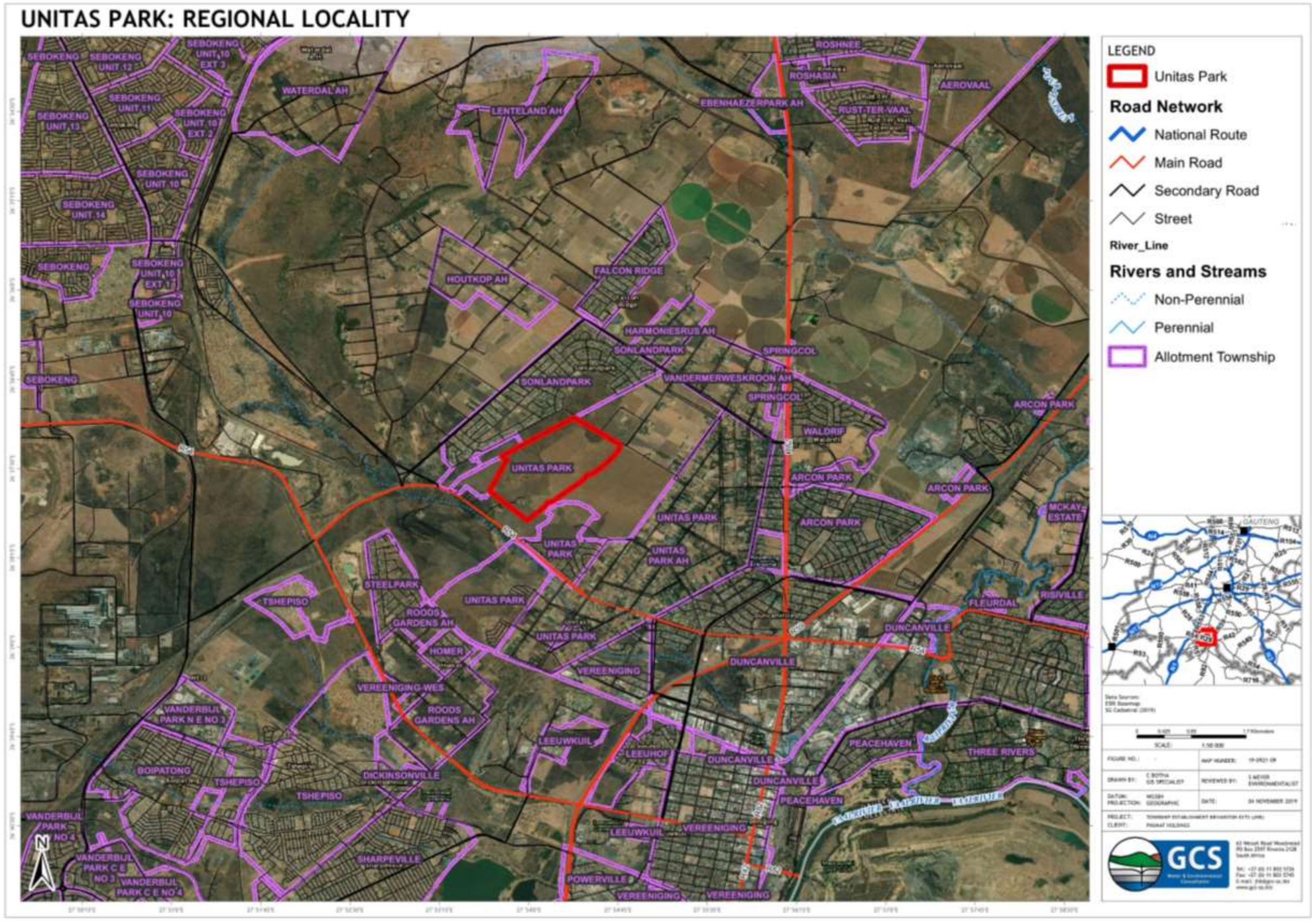


Figure 1-3: Regional Locality of Unitas Park Ext. 16

Figure 1-4: Locality of Unitas Park Ext. 16

1.5 Legislative Context

The policy and legislative context applicable to the Unitas Park project is summarised in Table 1.3 and penalties applicable to non-compliance to the legislation are detailed in Table 1.4.

Table 1.3: Legislation and guidelines applicable to the Unitas Park project

LEGISLATION/ GUIDELINES	APPLICABILITY
The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)	All developers are duty-bound to constitutional, legislative, and other measures to prevent pollution and ecological degradation, promote conservation and to develop in a sustainable manner as far as is reasonably possible. The constitutional environmental right elevates the importance of environmental protection and conservation and emphasises the significance that South Africans attach to an environment that is not harmful to their health or well-being.
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)	NEMA provides for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by State Departments and to provide for matters connected therewith. These principles serve as guiding principles for a project and they are binding, enforceable and justiciable. In terms of the EIA Regulations of 2014 (as amended in 2017) published in terms of NEMA, an Application for Environmental Authorisation for listed activities is required to be submitted to either the Provincial Environmental Competent Authority, or the National Competent Authority.
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) (NEM:WA)	The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA), as amended, aims to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development, to provide for specific waste management measures, to provide for the licensing and control of waste management activities, to provide for compliance and enforcement, to name but a few of the purposes of the Act.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM:BA)	The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection. This Act is applicable to this application for environmental authorisation, in the sense that it requires the project applicant to consider the protection and management of local biodiversity.
Conservation of Agricultural Resources Act 43 of 1983 (CARA)	To provide for control over the utilization of the natural agricultural resources of the Republic in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants; and for matters connected therewith. In terms of the amendments to the regulations under the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983), landowners are legally responsible for the control of alien species on their properties.
National Water Act, 1998 (Act No. 36 of 1998) (NWA)	The NWA is the primary legislation regulating both the use of water and the pollution of water resources. A person can only be entitled to use water if the use is permissible under the Act. Water Use is defined broadly and must be licensed unless it is listed in Schedule 1 as an existing water use or is permissible under general authorization.

LEGISLATION/ GUIDELINES	APPLICABILITY
The National Heritage Resources Act, (Act No. 25 of 1999) (NHRA)	NHRA governs the management of heritage resources which are of cultural significance. The South African Heritage Resources Agency (SAHRA) is the national body responsible for the protection of South Africa's cultural heritage resources. A Notice of Intent to Develop is required to be submitted to SAHRA for this project.
Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA)	In 2013, land use planning was influenced by the promulgations of the Spatial Planning and Land Use Management Act (2013) (SPLUMA) which outlines a set of principles to influence spatial planning, land use management and land development. The general principles of SPLUMA are that spatial planning, land use management and land development must promote and enhance spatial justice, spatial sustainability; efficiency; spatial resilience, and good administration. Integrated Development Plans (IDP) and Spatial Development Frameworks (SDF) are the key planning instruments used by municipalities for new developments (whether residential or commercial). While this does not form part of this document, it is required and will be applied for separately.
Gauteng Environmental Management Framework	Site falls within Zone 1 of the Gauteng Environmental Management Framework, which pertains to the Urban Development Zone. The intention thereof is to concentrate Urban Development to minimise urban sprawl and create a more effective and efficient city area.
Strategic Transmission Corridor – Central Corridor	Site falls within the Central Corridor for the Strategic Transmission Corridor, associated with the Renewable Energy Development Zones.
Air Quality – Vaal Triangle Airshed Priority Area	The Vaal Triangle Airshed Priority Area (VT APA) is the first priority area in South Africa and was declared such due to the concern of elevated pollutant concentrations within the area, specifically particulates. The Vaal Triangle is a highly industrialised area housing numerous industries, a coal fired power station, and various smaller industrial and commercial activities in addition to a few collieries and quarries giving rise to noxious and offensive gasses

Table 1.4: Penalties applicable to non-compliances under the legislation tabulated above

LEGISLATION	SECTION	FINE
NEMA	Section 49A (1) (a), (b), (c), (d), (e), (f) and (g)	Fine not exceeding R 10 million or imprisonment for a period not exceeding 10 years, or both such fine and such imprisonment.
	Section 49A (1) (i), (j) or (k)	Fine not exceeding R 5 million, or imprisonment for a period not exceeding 5 years. In the case of a second or subsequent conviction: fine not exceeding R 10 million, or to imprisonment for a period not exceeding 10 years. Or in both instances to both such fine and such imprisonment.
	Section 49A (1) (h), (l), (m), (n) (o) or (p)	Fine or imprisonment for a period not exceeding one year, or to both a fine and such imprisonment.
NWA	Section 15 and Item 31 of Schedule 4	First conviction: Fine or imprisonment for a period not exceeding 5 years, or both a fine and such imprisonment. Second or subsequent conviction: Fine or imprisonment for a period not exceeding 10 years, or both a fine and such imprisonment.
NEM:WA	Section 67 (1) (a), (g) or (h)	Fine not exceeding R 10 million or imprisonment for a period not exceeding 10 years, or both such fine and such imprisonment, in addition to other penalties that may be imposed in terms of NEMA.
	Section 67 (1) (b), (c), (d), (e), (f), (i), (j), (k) or (l), and Section 67 (2) (a), (b), (c), (d) or (e)	Fine not exceeding R 5 million or imprisonment for a period not exceeding 5 years, or both such fine and such imprisonment, in addition to other penalties that may be imposed in terms of NEMA.
	Section 67 (1) (m)	Fine or imprisonment for a period not exceeding 6 months or both a fine and such imprisonment.

1.6 Listed Activities Triggered

The Unitas Park project triggers listed activities in terms of the NEMA, as contained in the amended 2014 EIA Regulations. The identified listed activities are presented in Table 1.5 and require that a Scoping and Environmental Impact Reporting (S&EIR) process is followed in order to obtain the necessary Environmental Authorisation (EA) in terms of the NEMA.

Table 1.5: NEMA Listed Activities triggered by the Unitas Park project.

LISTING NOTICE	ACTIVITY NO	ACTIVITY DESCRIPTION	PROJECT ACTIVITY WHICH TRIGGERS THE LISTED ACTIVITY:
1	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; or *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;* excluding — aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; (ee)where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	The proposed development site is situated within 32 metres of a water resource.
1	25	*The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.*	The development of a sewage treatment package plant which is estimated at being phased in two phases with an expected capacity of 10 mega-litres respectively.
1	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 — (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Site clearance of indigenous vegetation highly likely to exceed 1 ha.
1	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*	The proposed development is a Residential Development of 149 ha in extent, on land currently zoned as agriculture.

LISTING NOTICE	ACTIVITY NO	ACTIVITY DESCRIPTION	PROJECT ACTIVITY WHICH TRIGGERS THE LISTED ACTIVITY:
		(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.	
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.	The site is 149ha in extent. It is likely that indigenous vegetation is to be cleared in excess of 20 ha.
2	25	*The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of 15 000 cubic metres or more.*	The development of a sewage treatment package plant which is estimated at being phased in two parts with an expected capacity of 10 mega-litres respectively, i.e. potential total of 20 000 cubic metres.
3	4	*The development of a road wider than 4 meters with a reserve less than 13.5 meters in* *c. Gauteng within* *(i) A protected area identified in terms of NEMPAA, excluding conservancies;* *(ii) National Protected Area Expansion Strategy Focus Areas;*	The site is zoned for agriculture and is classified as having a very high sensitivity in respect to the terrestrial biodiversity. Soweto Highveld Grassland = Vu.
3	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, in* *c. Gauteng within* *(ii) Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans*	Site is in 149ha in extent, currently zoned for agriculture and it is highly likely that indigenous vegetation of more than 300 m2 will be cleared.
3	14	*The development of—* *(ii) infrastructure or structures with a physical footprint of10 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;*	Site is in close proximity of NFEPA system, is currently zoned as agriculture and falls within a very high sensitivity of terrestrial biodiversity due to a vulnerable ecosystem.
3	15	*The transformation of land bigger than 1000 square metres in size to residential, commercial, retail, industrial or institutional used where such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.*	The site is 149ha in extent and is currently zoned as agriculture.

1.7 Department of Environmental Affairs Screening Tool

1.7.1 Purpose of the Screening Tool

The Department of Environmental Affairs (DEA) Screening Tool allows to study the environmental sensitivities of a proposed development site, assist with the identification of specific zones or plans such as industrial development zones or Environmental management Frameworks may be applicable to the proposed development site, and it acts as a guideline as to which specialist assessments may need to be undertaken as part of the environmental assessment process.

The selection of the specialist investigations that were undertaken as part of this environmental assessment process was determined with the assistance of this tool as well as a desktop environmental assessment.

1.7.2 DEA Screening Tool Results

1.7.2.1 Environmental Sensitivities

The DEA Screening Tool has identified the following environmental sensitivities for the development site:

Development Area Themes	Environmental Sensitivity
Agricultural Theme	High
Animal Species Theme	Medium
Aquatic Biodiversity Theme	Low
Civil Aviation Theme	High
Plant Species Theme	Medium
Defense Theme	Low
Terrestrial Biodiversity Theme	Very High

1.7.2.2 Specialist Investigations

The DEA Screening Tool has identified that the following specialist investigations are potentially to be included in the environmental impact assessment process:

Recommended Assessment	Status	Company Undertaking
Agricultural Impact Assessment	Undertaken	Terra Africa Consultants
Landscape/Visual Impact Assessment	-	-
Archaeological and Cultural Heritage Impact Assessment	Undertaken	Heritage Contracts and Archaeological Consulting (HCAC)

Paleontological Impact Assessment	Undertaken	Marion Bamford as subcontracted by Heritage Contracts and Archaeological Consulting (HCAC)
Terrestrial Biodiversity Impact Assessment	Undertaken	GCS
Aquatic Biodiversity Impact Assessment	Undertaken	GCS
Hydrology Assessment	-	-
Socio-Economic Assessment	Undertaken	Urban-Econ Development Economists
Plant Species Assessment	Included in the Ecological Assessment	GCS
Animal Species Assessment	Included in the Ecological Assessment	GCS

1.7.3 Motivation for Inclusion/Exclusion of Assessments

The following table provides an overview of the motivation for the inclusion/exclusion of the specialist assessments as identified by the DEA Environmental Screening Tool in this environmental assessment process:

Specialist Assessment	Included/Excluded	Motivation
Agricultural Impact Assessment	Included	The site possibly have high agricultural potential.
Landscape/Visual Impact Assessment	Excluded	The key underlying impacts will be assessed in the Soil and Heritage Assessment.
Archaeological and Cultural Heritage Impact Assessment	Included	The proposed development triggers an investigation in terms of the NHRA.
Paleontological Impact Assessment	Included	As above.
Terrestrial Biodiversity Impact Assessment	Included	Desktop investigation identified sensitivities to be further investigated.
Aquatic Biodiversity Impact Assessment	Included	Desktop investigation identified that the site falls within the buffer zones of a wetland and/or other watercourses
Hydrology Assessment	Excluded	Technical desktop investigation die not indicate the need for this assessment.
Socio-Economic Assessment	Included	The nature of the development requires the undertaking of such an assessment.

Traffic and Access Impact Assessment	Included.	The nature of the development requires the undertaking of such an assessement.

1.8 Need and Desirability

According to the Sedibeng IDP 2019-2020, there is a great need to improve the quality of housing in the municipality under The Housing Act (Act 207 of 1997), whereby the development of a housing programme is provided and promoted. This project will form one such provision, to promote Urban renewal and modernize urban development, as well as reduce the backlog in the District. There has also been a decline in the proportion of access to formal housing in the Emfuleni Local Municipality (LM), as well as households with access to electricity.

2 SCOPE OF WORK

The aims of this Scoping Report are:

- Identify the relevant policies and legislation relevant to the activity;
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location and layout;
- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking processes;
- Identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- Identify the key issues to be addressed in the assessment phase;
- Agree on the level of assessment to be undertaken; and
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

3 PROJECT ALTERNATIVES

In accordance with the principles stipulated in NEMA it is required by law that various alternatives be investigated when considering a development which may impact significantly on the surrounding environment, in order to implement the best practicable environmental option. In definition this means that the options will be assessed in such a manner that the alternative which has the most benefit or cause the least environmental damage to the natural environment be chosen. This option also needs to be of such a nature that the capital and social cost incurred will be of an acceptable nature to society.

The following aspects are taken into consideration when investigating alternatives:

- Biophysical Impacts;
- Socio-economical Impacts.

An Alternative can be defined as an option that will meet the general purpose and requirements of the activity, which may include alternatives to:

a) The property on which, or location where, it is proposed to undertake the activity;
b) The type of activity to be undertaken;
c) The design or layout to be used in the activity;
d) The technology to be used in the activity; and
e) The operational aspects of the activity.

Based on the available information the following feasible and reasonable alternatives for the proposed project have been identified and, in conjunction with reference to various specialist opinions have considered that the following alternatives, should be comparatively assessed, during the EIA Phase of the Project:

1. Design and/or Layout Alternatives
2. Technology/Operational Alternatives
3. The “No-Go” consideration (this is a mandatory option)

Based on the contextual information presented above, and described in detail below, there is no evidence to suggest that other alternatives should be investigated for the proposed activity.

3.1 The “Site” Alternative

This site was selected as it was identified as particularly well suited for the proposed activity (provision of serviced residential stands), in accordance with the GRLRP. This GRLRP aims at

fast tracking the release of serviced stands from State owned land (in this instance land owned by Gauteng Provincial Government) to qualifying beneficiaries.

Based on the above, at this stage, there is no reason to suggest that alternative sites are investigated as these would not meet the general purpose and need of the proposed activity.

Therefore, no alternative sites were investigated for the purpose of this Scoping Report.

3.2 The "Activity" Alternative

The purpose of the activity applied for is very specific, which is to provide serviced stands on State owned land to qualifying beneficiaries. The proposed development site is situated ideally for the proposed activity, i.e. housing, as it is surrounded by residential developments.

Based on the above, at this stage, there is no reason to suggest that any activity alternatives are investigated as these would not meet the general purpose and need of the proposed activity.

Therefore, no activity alternatives were investigated for the purpose of this Scoping Report.

3.3 The "Design/Layout" Alternative

The design or layout is only due to be assessed during the EIA Phase of this Project. The Scoping Phase for this Project has been used to ensure that the site is well-suited to the activity.

Further to the above, the specialist assessments have identified areas of the site which are to be investigated further during the EIA Phase of the Project for the placement of the activity.

The above in in accordance with Appendix 2 of GNR 326, of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014 (as amended). The Scoping Phase of the Project is to enable the Specialists and the EAP to identify the Best Practical Environmental Option (BPEO) for the development footprint, and to identify studies which are required to be refined during the EIA Phase of the Project.

Appendix 2 of GNR 326, NEMA EIA Regulations, 2014 (as amended) states the following objectives of the Scoping Process:

1. The objective of the scoping process is to, through a consultative process –

a) Identify the relevant policies and legislation relevant to the activity;

b) Motivate, the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

c) Identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;

d) Identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographic, physical, biological, social, economic and cultural aspects of the environment;

e) Identify the key issues to be addressed in the assessment phase;

f) Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

g) Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

Based on the above, at this stage, no layout alternative has been assessed by the EAP or the specialist assessments, as this is due to be assessed, in detail in the refined Impact Assessments, during the EIA Phase of the Project.

3.4 The "Technology" Alternative

Standard brick and mortar technology will be used in the construction of the housing units. This technology has been tried and tested and the most cost effective in supplying housing. In the final design of the buildings energy saving technologies/sustainable technology alternatives such as solar water heating and grey water harvesting will be considered

Resource demand reducing technologies have been included in the preferred option and include:

- Low flow showerheads
- Dual flush toilets

- Low energy lighting
- Thermal insulation of the ceilings

Based on the information presented within this DSR, it is reasonable to suggest that above-mentioned technology alternatives have been investigated and comprise the preferred alternative.

3.5 No-Go Option

The Assessment Phase requires that all development alternatives be included into the investigation process. The no-go option will be comparatively assessed against the above mentioned alternative during the environmental impact assessment phase and will act as a baseline against which all the other development alternatives are measured.

The “no-go” option would result in the proposed activity not being implemented and the status quo on the property remaining. The No Go alternative usually implies the continuation of the status quo in terms of development potential, zoning and management. The No-Go Alternative would not achieve the general purpose and requirements of the activity, which is to provide services stands for residential purposes. It is clear that the no-go option would result in a significant opportunity loss for the site, provision of housing opportunities in the local area and importantly, the Communities which could potentially be involved in the Project.

4 BASELINE ENVIRONMENTAL DESCRIPTION

The baseline environment is described within this Chapter. The baseline environment provides a status against which to assess the proposed project activities and potential impacts.

4.1 Geology

There are a few geological conditions that could impact development in the region, most notably the presence of dolomite in the region. This can cause problems with construction. There are also areas around Vereeniging, Vanderbijlpark, Meyerton, east of Midvaal, Heidelberg and areas to the east of Lesedi, which have been undermined and so can cause instability (Sedibeng SDF, 2017).

4.2 Topography

The site falls within a fairly flat area, with prominent ridges being present near Walkerville, Suikerbosrand and south of the Vaal Dam (Sedibeng SDF, 2017).

4.3 Climate

The red line in Figure 4-1 below indicates the mean daily maximum temperature, ranging between 18C in winter and 29C in summer, while the blue line indicates the mean daily minimum temperature, which ranger between 2C in winter and 15C in summer months. The maximum temperatures in summer can reach approximately 35C, while in winter, the number of days that frost occurs can reach up to 8 days in July. The mean annual precipitation ranges from a minimum of 1mm per month in winter to a maximum of 107mm per month in summer (Meteoblue, 2020).

Figure 4-1: Mean monthly temperatures and precipitation in the Vanderbijlpark area (Meteoblue, 2020)

4.4 Soils, Land Use and Land Capability

4.4.1 Soil Types

Six different soil forms (Carolina, Cullinan, Dresden, Glencoe, Lichtenburg and Mispah) were identified within the proposed development site. Both the Cullinan and Carolina soil forms are newly described soil forms of the new Natural and Anthropogenic Soil Classification System of South Africa (Soil Classification Group, 2018). The natural soil forms identified on site include soil of the Carolina, Dresden, Glencoe, Lichtenburg and Mispah forms while the Cullinan form is an anthropogenic soil form.

Approximately 95.6ha of the 154ha study site consists of yellow-brown and red sandy-clayloam soil profiles of the Carolina, Glencoe and Lichtenburg forms with soil depth of 1m or deeper than 1m. These soil profiles are located in the northern, eastern, south-eastern and centre of the study area. A small portion (1ha) of shallow Dresden soil profiles are located in the south of the study area. More than 95% of the areas of Carolina, Dresden, Glencoe and Lichtenburg soil forms have been used for maize cultivation the past growing season (2019 – 2020).

The western section of the proposed development area consist of shallow Mispah profiles with soil depth between 0.1 and 0.35m where evidence of a derelict old farmhouse was found. Two areas of previous soil excavations are present in the western section of the site (Cullinan form). The Cullinan form soil form has been described as large, exposed excavations without backfilling (Soil Classification Working Group, 2018).

4.4.2 Land Use

The area is zoned for farming/agricultural. Evidence was found of a derelict farmstead surrounded by what may be the remains of a garden around the house. The current land use of the site largely consists of rainfed production of grains (maize was planted for the 2019-2020 growing season) as well natural veld that may be used for livestock production (will be confirmed when information is received from farmer who leases the property). Within the south-western section of the study site, there are evidence of two areas of previous soil excavation in where gravel and fractured rock was removed without any backfill or active rehabilitation of the area.

Land outside the proposed development site consist of a mixture of land uses, including residential areas and a school to the north-west of the site as well as rainfed crop production and farmsteads towards the north-east, east and south-east of the study site. The R54 (Houtkop Road) is located south of the study site.

4.4.3 Land Capability

Using the soil classification data, the project site can be divided into three different land capability classes i.e. soil with either Moderate-High (Class 10), Moderate (Class 08) and

Moderate-Low (Class 07) land capability. The largest portion of the proposed development area consist of soil with Moderate-High (Class 10) land capability with medium-high to high potential for rainfed crop production. The highest land capability is 9.4 ha of land in the middle section of the site that has Moderate- High (Class 10) land capability. The shallower Glencoe profiles to the east has Class 09 land capability and the areas where the Hutton and Clovelly profiles have already been affected by anthropogenic activities, have Moderate (Class 08) land capability.

4.5 Hydrology

There are numerous water bodies in the area, with a number of wetlands in the Lesedi area and Emfuleni, full assessment has not been conducted and the internal risk assessment matrix will further indicate the need for a full hydrological assessment.

4.6 Wetlands

The wetland assessment identified one unchanneled valley bottom wetland within the 500 m regulated area. It was determined that this system may be impacted upon by the proposed development which necessitated further assessment of its ecological state and functional importance.

The PES of the system was determined to be 'moderately modified' due to serious alterations to the hydrology of the system through canalization and stream channel modifications. The vegetation and geomorphology of the system was determined to be largely natural only being impacted by commercial agriculture in the surrounding area. The functional assessment determined that the system provides good erosion control as well as phosphate trapping.

Based on the findings of the wetland assessment, the following recommendations have been highlighted for consideration

- The wetland system must be demarcated as a no-go zone; and
- A 45 m buffer must be established and maintained during the construction phase of the proposed development. This must be monitored by the ECO.

4.7 Ecology and Biodiversity

4.7.1 Fauna and Flora

The biodiversity assessment identified three (3) habitat types as follows:

- Open grassland;
- Degraded grassland; and
- Freshwater hydrophytes.

The open and degraded grassland were determined to have low to very low naturalness due to the extensive commercial agriculture taking place within the study area. During the infield floral assessment, no species of conservation concern were observed. The study area falls within the Soweto Highveld Grassland which is considered to be endangered. However, very small and scattered areas of open grassland was identified.

Although the area has the potential to provide habitat for a diverse range of fauna species in a natural state, the degraded nature resulted in very few fauna species being observed. One (1) mammal species, namely the *Lepus saxtilis* (Scrub Hare) (LC) was observed. Additionally, large flocks of *Streptopelia decipiens* (African Dove) (LC) were observed.

4.8 Air Quality

The air quality in the Emfuleni LM is very poor, largely due to the high level of industrialisation in the area, with the greater Sedibeng DM being the most polluted municipality. The sources of emissions include: industrial processes, domestic fuel burning, vehicle exhaust emissions and waste facilities. As a result, Emfuleni LM and Midvaal LM are part of the first national priority area in the Vaal Air-Shed Priority Area. PM10 is regarded as the pollutant of most concern, due to its health implications (Sedibeng IDP, 2019). The region's Air Quality Management plan informs management of the air quality in the region, which assists in the issuing of Air Emissions Licences and aims to achieve cleaner air for residents. At present, there are two Ambient Air Quality Monitoring Stations: one in Meyerton and one in Vanderbijlpark (Sedibeng IDP, 2019).

4.9 Noise

The site that is earmarked for the proposed development, which is surrounded by is presently not impacted by any sources of noise. The R54, which occurs towards the southern boundary of the site, can be characterised as having "medium" traffic volumes, and the noise generated from traffic flows from similar roads has been classified as having negligible impacts. The present activity on the site is cultivated fields, and thus significant noise levels do not emanate from this activity, apart from machinery used for ploughing.

4.10 Heritage sites and paleontological importance

A Heritage study was undertaken by HCAC (2020) and a paleontological study by Marion Bamford (2020) to determine the character of the site in terms of cultural resources. T Due to the area being ranked of high significant by SAHRIS (Figure 4-2), a paleontological study was undertaken. The non-intrusive field survey identified some scatted Stone Age artefacts, a stone cairn of unknown purpose and a partially demolished homestead. The paleontological study concluded that, as the site lies on soils that overlay deposits of siltstones, mudstones, shales and possible coal seams of the Vryheid Formation, there is a possibility of fossils being

preserved. However, these rocks are only potentially present more than 50m below the surface. It is therefore unlikely that fossils will be unearthed.

Due to the site being used for the cultivation of maize, a large portion of the site was inaccessible. Although artefacts were identified in the areas that could be accessed, they are rated as having low heritage significance. It is recommended that the area is monitored during the construction phase.

Figure 4-2: SAHRIS palaeosensitivity map for the proposed development in Unitas Park Ext 16 shown within the yellow rectangle.

(Background colours indicate the following degrees of sensitivity: red = very highly sensitive; orange/yellow = high; green = moderate; blue = low; grey = insignificant/zero)

4.11 Socio-Economic Conditions

According to the Sedibeng Growth and Development Strategy 2 (Sedibeng District Municipality, 2012), the Unitas Park population is of low-Living Standards Measurement 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 Unitas Park. 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.

4.12 Traffic

Background

The site is well-connected on a regional scale. To the south is Houtkop Road (R54), to the south-west is the R28 and to the east is the R59 (Old Johannesburg Road). The proposed PWV 20 runs to the west of the site and the proposed K55 abuts the site on its eastern boundary. On a more local level, the extension of Houtkop Road, Skippie Botha Road, and Langrand Road provides connectivity to the north, east, and west.

A strong movement of people occurs between Vanderbijlpark, Vereeniging, and Meyerton towards Johannesburg along the P156 freeway. A strong movement also occurs between Sebokeng and Johannesburg, especially during the morning and afternoon peak hours, as commuter access employment opportunities in Johannesburg and surrounding areas. A strengthening of movement in the future can be expected between Vereeniging and Sebokeng, as urban development and densification occur along this corridor. Movement along the corridor between Vereeniging, Sebokeng, and Johannesburg is supported by the existing commuter railway line.

Rail Network

Emfuleni is served by a rail network that connects Emfuleni to neighbouring areas in Gauteng and the Free State. This rail network consists of three (3) lines.

- The first rail line stretches along with the P156 (R59) freeway and links Sasolburg to Vereeniging, Meyerton, and Germiston. This rail line is primarily a freight line but does contain commuter railway stations along sections of the line.
- The second railway line stretches from Sasolburg, via Vereeniging towards Sebokeng, Orange Farm, and Johannesburg. This railway line also functions as a freight railway line, although it also fulfills a significant commuter railway line function.
- The third railway line stretches from Sebokeng towards Westonaria. This railway line is exclusively used for rail freight purposes.

Road Network

Emfuleni comprises of an extensive bus network that serves the municipal area. A prominent bus route is the bus route linking Vereeniging to Sebokeng along with the K53 (Moshoeshoe Road) and the K45 (Golden Highway). This bus route links Evaton and Sebokeng to the Vereeniging CBD and the industrial areas located within Vereeniging. Equally so, the area comprises of an extensive mini-bus taxi network. This network largely uses the same routes as of the bus routes and serves the same areas within the municipal area. The only significant exception is that the minibus route links Vanderbijlpark CBD to Sebokeng via Mittal Steel; a route that the bus network does not serve.

The proposed development will generate an estimated 566 trips during the weekday AM and weekday PM peak periods, respectively. Whilst this has been identified, it is to be noted that the site is currently underdeveloped and existing capacity constraints, as such the

development needs to meet this along with the increased traffic impacts. As a precautionary measure the analysis performed, found that the impact of the proposed developments can be mitigated by means of several road and intersection improvements

4.13 Visual Aspects

The Unitas Ext. 16 site is visible from the R54 as well as the surrounding peripheral streets. The areas surrounding the site under investigation, are residential in nature, varying between formal residential areas (e.g. Unitas Park, Sonland Park, Van Der Merwes Kroon) to agricultural holdings (e.g. Unitas AH, Houtkop SH) utilized for residential purposes.

The proposed development's land use, although involving a change in land use from agricultural to residential, is thus in line with the surrounding land use, as it is aimed at being transformed into student accommodation, businesses and housing. Consequently, it is not envisaged that the visual character and sense of place of the area will be significantly altered.

5 PUBLIC PARTICIPATION PROCESS

This section of the report documents the process, which was and will be followed with respect to consultation of Interested and Affected Parties (I&APs)/stakeholders and the Government Authorities.

5.1 Purpose of Public Participation

The most important objective of public participation is to provide sufficient and accessible information to potential Interested and Affected Parties ("I&APs") in an objective manner and to provide a platform for constructive participation in the application process, thereby assisting I&APs to:

- Gain an understanding of the Project, the various components and the potential impacts (positive and negative);
- Raise issues of concern and suggestions for enhanced benefits;
- Comment on reasonable alternatives;
- Verify that their issues have been recorded in the Comments and Responses Report ("CRR") and considered in investigations; and
- Contribute relevant local information and traditional knowledge to the process.

5.2 Public Consultation Process

This section provides a short summary of the various activities of the public consultation process to be undertaken in support of the application process. Some of the activities associated with the Scoping Phase have already commenced.

5.2.1 Stakeholder database

A stakeholder database or list of I&APs was compiled and will be updated as the process unfolds and as more I&APs register. The database was compiled: a) using lists of contact details of previous applications in the area; b) using information provided by the applicant's community liaison officers; and c) including responses from I&APs.

The current I&AP database is attached as Appendix C1 to this Report. The I&AP database is the means through which information will be conveyed to stakeholders as part of the announcement of the applications and the availability of the consultation and final reports as these become available for public review. For this Project, I&APs typically include the following:

- Owners or persons in control of the land where the proposed Project activities are to be undertaken ("Project Area");
- Occupiers of the property where the activities are to be undertaken;
- Owners and occupiers of land adjacent to the Project Area;

- Provincial (Gauteng) and local government (Emfuleni Local Municipality and Sedibeng District Municipality);
- Organs of state, other than the competent authorities, which is the Department of Human Settlements, such as the Gauteng Department of Agriculture and Rural Development, Department Public Works and Roads, SANRAL, etc. having jurisdiction in respect of any aspect of the proposed activities;
- Relevant residents' associations, agricultural unions, community based organisations, water user associations, and any catchment management authority and Non-Governmental Organisation ("NGOs");
- Environmental organisations, forums, groups and associations; and
- Private sector (businesses, industries) in the vicinity.

5.2.2 Announcement of the application process

The integrated application process was announced to I&APs by means of the following:

- An advertisement was placed in the Sedibeng Ster on the 14 January 2021;
- A Background Information Document ("BID") was compiled and distributed to all I&APs on the stakeholder database;
- Site Notices were placed all around the Project Area;
- Placement of all notices and the BIDs on the GCS website (http://www.gcs-sa.biz/documents/). The GCS website is used to make documents electronically available to stakeholders. The website address was published in the advertisement, BIDs, site notices and all other communication; and
- A Registration and Comment Sheet was distributed with every BID, inviting stakeholders to register as I&APs and to provide their comments on the proposed application.

5.2.3 Comments and Responses Report

All comments received during the application process will be captured in a Comments and Responses Report (CRR). This CRR will be updated on a continuous basis and will be presented to the authorities and other I&APs together with the consultation and final reports as a full record of issues raised, including responses on how the issues were considered during the application process.

5.2.4 Review of the Draft Scoping Report

The announcement of the integrated application process also introduced the availability of the Draft Scoping Report for public review and comments. The Draft Scoping Report (DSR) was made available for public comment for 30 days. The DSR has been submitted for public review from 15 January 2021 until 15 February 2021 (30 days). Due to COVID-19 restrictions, no hard copies of the report will be available for review at public venues. However, the report was

available electronically via the GCS Website (link provided above) or a CD was made available upon request. The availability of the Report was announced via the publishing of advertisements (Appendix C4), and on-site notices (Appendix C5). Emails with notification letters were sent to all I&APs registered on the stakeholder database, providing the direct link to an electronic version of the Draft Scoping Report and its appendices.
A record of the comments received thus far is included as part of the CRR, which is available with this Final Scoping Report in Appendix C6.

5.2.5 Review of the Final Scoping Report

The Final Scoping Report was submitted to the Competent Authority on 01 March 2020 and the Report is available to I&APs for their final comments for a 30-day period. Stakeholders were requested to provide their comments on the final reports directly to the competent authority, GDARD, in a notification letter sent to them before the review of the Final Scoping Report commenced. Stakeholders were requested to copy their comments to the public participation office.

5.2.6 Public Participation During EIA Phase

Once the Scoping phase has been finalised and the Scoping Report is approved by GDARD, the EIA phase of the S&EIR process will begin. The main objectives of public participation during this phase will be a) to verify that stakeholder issues have been considered by the EIA Specialist Studies and in the reports, which will be compiled and b) to provide stakeholders the opportunity to comment on the findings of the EIR/EMPr Report and other associated reports, including the measures that have been proposed to enhance positive impacts and reduce or avoid negative ones. The public participation activities during the EIA phase of the integrated regulatory process will include:

- Email notifications to stakeholders to inform them of the opportunity to review the Draft EIR/EMPr Report;
- The draft EIR/EMPr report will be made available for review;
- Advertisements to notify stakeholders of the availability of the draft report will be published in the same newspaper used during the scoping phase;
- Stakeholder meetings will be held with stakeholders during the review period of the draft report to provide them with the contents of the report for their comments and views;
- The final version of the EIR/EMPr and IWUL reports will also be made available to stakeholders once submitted to the different competent authorities; and
- The CRR will be kept updated with stakeholder comments and issues and responses will be included with the updated versions which will be made available as stated in Section 5.2.3.

6 PLAN OF STUDY FOR EIA

6.1 Proposed method of assessing the environmental aspects

6.1.1 Impact Assessment for proposed site

The assessment of potential impacts will be addressed in a standard manner to ensure that a wide range of impacts were comparable. The ranking criteria and rating scales will be applied to all specialist studies for this project. The following methodology will be used to rank these impacts. Clearly defined rating and rankings scales (**Table 6.1** - **Table 6.7**) will be used to assess the impacts associated with the proposed activities. The impacts identified by each specialist study and through public participation will be combined into a single impact rating table for ease of assessment.

Table 6.1: Severity or magnitude of impact.

Insignificant/non-harmful	1
Small/potentially harmful	2
Significant/slightly harmful	3
Great/harmful	4
Disastrous/extremely harmful/within a regulated sensitive area	5

Table 6.2: Spatial Scale – extent of area being impacting upon.

Area specific (at impact site)	1
Whole site (entire surface right)	2
Local (within 5km)	3
Regional/neighbouring areas (5km to 50km)	4
National	5

Table 6.3: Duration of activity.

One day to one month (immediate)	1
One month to one year (Short term)	2
One year to 10 years (medium term)	3
Life of the activity (long term)	4
Beyond life of the activity (permanent)	5

Table 6.4: Frequency of activity - how often activity is undertaken.

Annually or less	1
6 monthly	2
Monthly	3
Weekly	4
Daily	5

Table 6.5: Frequency of incident/impact - how often activity impacts environment.

Almost never/almost impossible/>20%	1
Very seldom/highly unlikely/>40%	2
Infrequent/unlikely/seldom/>60%	3
Often/regularly/likely/possible/>80%	4
Daily/highly likely/definitely/>100%	5

Table 6.6: Legal Issues – governance of activity by legislation.

No legislation	1
Fully covered by legislation	5

Table 6.7: Detection - how quickly/easily impacts/risks of activity on environment, people and property are detected.

Immediately	1
Without much effort	2
Need some effort	3
Remote and difficult to observe	4
Covered	5

Each identified impact will be assessed in terms of severity, spatial scale and duration (temporal scale). Consequence is then determined as follows:

Consequence = Severity + Spatial Scale + Duration

The risk of the activity is then calculated based on frequencies of the activity and impact, whether the activity is governed by legislation and how easily it can be detected:

Likelihood = Frequency of Activity + Frequency of Impact + Legal issues + Detection

The risk of each identified impact is then based on the product of consequence and likelihood.

Risk = Consequence x likelihood

Impacts will be rated as either of high, moderate or low significance on the basis provided in Table 6.8.

Table 6.8: Impact significance ratings

SIGNIFICANCE RATING	CLASS (NEGATIVE IMPACT)	CLASS (POSITIVE IMPACT)
1 – 55	(L) Low Significance	(L) Low Significance
56 – 169	(M) Moderate Significance	(M) Moderate Significance
170 – 600	(H) High Significance	(H) High Significance

6.1.2 Risk Reporting Matrix

The Risk Reporting Matrix (Figure 6-1 is typically used to determine the level of risks identified and associated with a project or within a program. The level of risk for each root cause is reported as low (green), low moderate (yellow), high moderate (purple) or high (red). The purpose of a risk assessment process is to move risks from the top right (high risk) to the bottom left (low risk) as reflected in the risk map.

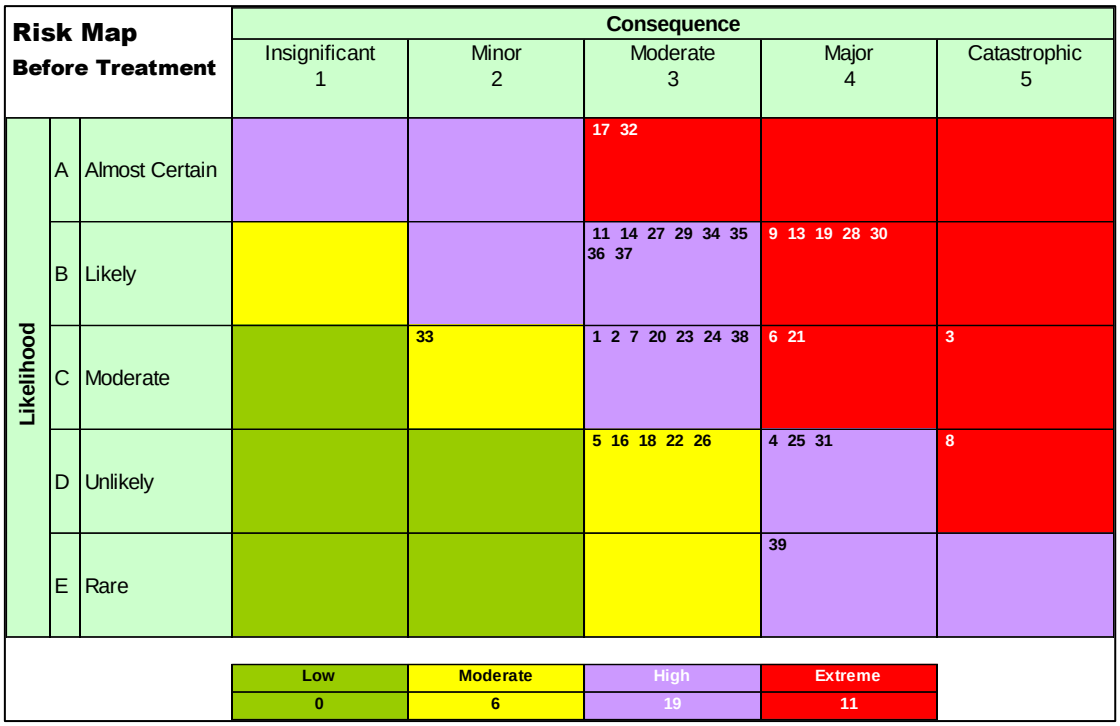


Figure 6-1: Illustrative risk map.

The level of likelihood of each root cause is established utilising specified criteria (**Table 6.9**). For example, if the root cause has an estimated five per cent probability of occurring, the corresponding likelihood is Rare (Level E).

Table 6.9: Likelihood categories of root causes.

LIKELIHOOD CATEGORY				
E	**D**	**C**	**B**	**A**
Rare	**Unlikely**	**Moderate**	**Likely**	**Almost Certain**
Highly unlikely to occur on this project	Given current practices and procedures, this incident is unlikely to occur on this project	Incident has occurred on a similar project	Incident is likely to occur on this project	Incident is very likely to occur on this project, possibly several times

The level and types of consequences of each risk are established utilising criteria such as those described in Table 6.10. For each type of consequence there is a description that relates to a specific consequence value. The results for each risk are then plotted in the corresponding single square on the Risk Reporting Matrix.

Table 6.10: Levels and types of consequences.

CONSEQUENCES					
	1 - Insignificant	2 - Minor	**3 - Moderate**	**4 - Major**	**5 - Catastrophic**
Safety and Health	First Aid Case	Minor Injury, Medical Treatment Case with/or Restricted Work Case.	Serious Injury or Lost Work Case	Major or Multiple Injuries - permanent injury or disability	Single or Multiple Fatalities
Environment	No impact on baseline environment. Localized to point source. No recovery required	Localized within site boundaries. Recovery measurable within 1 month of impact	Moderate harm with possible wider effect. Recovery in 1 year	Significant harm with local effect. Recovery longer than 1 year.	Significant harm with widespread effect. Recovery longer than 1 year. Limited prospect of full recovery
Reputation	Localised temporary impact	Localised, short term impact	Localised, long term impact but manageable	Localised, long term impact with unmanageable outcomes	Long term regional impact
Business Impact	Impact can be absorbed through normal activity	An adverse event which can be absorbed with some management effort	A serious event which requires additional management effort	A critical event which requires extraordinary management effort	Disaster with potential to lead to collapse of the project

6.2 Terms of reference for the specialist studies

The following terms of reference (ToR) were utilized in appointing the specialist consultants to undertake detailed investigations to assess the significance of potential impacts to the receiving environment.

6.2.1 Heritage Impact Assessment

Field study

Conduct a field study to: (a) locate, identify, record, photograph and describe sites of archaeological, historical or cultural interest; b) record GPS points of sites/areas identified as significant areas; c) determine the levels of significance of the various types of heritage resources affected by the proposed development.

Reporting

Report on the identification of anticipated and cumulative impacts the operational units of the proposed project activity may have on the identified heritage resources for all 3 phases of the project; i.e., construction, operation and decommissioning phases. Consider alternatives, should any significant sites be impacted adversely by the proposed project.

Ensure that all studies and results comply with the relevant legislation, SAHRA minimum standards and the code of ethics and guidelines of ASAPA.

To assist the developer in managing the discovered heritage resources in a responsible manner, and to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act No 25 of 1999).

6.2.2 Paleontological Impact Assessment

The ToR for this study were to undertake a PIA and provide feasible management measures to comply with the requirements of SAHRA.

The methods employed to address the ToR included:

- Consultation of geological maps, literature, paleontological databases, published and unpublished records to determine the likelihood of fossils occurring in the affected areas. Sources included records housed at the Evolutionary Studies Institute at the University of the Witwatersrand and SAHRA databases;
- Where necessary, site visits by a qualified palaeontologist to locate any fossils and assess their importance (not applicable to this assessment);
- Where appropriate, collection of unique or rare fossils with the necessary permits for storage and curation at an appropriate facility (not applicable to this assessment); and
- Determination of fossils' representivity or scientific importance to decide if the fossils can be destroyed or a representative sample collected (not applicable to this assessment).

6.2.3 Agricultural Agro-Economic Assessment

Literature Review and Desktop Assessment

- Review all existing and relevant previous soil reports compiled for the study area;
- From this assessment, gaps in the baseline information available will be identified and these will guide the site survey to ensure that these gaps are addressed with the new information; and
- In addition to this, aerial photography as well as broad soil and land capability classes as obtained from the Environmental Potential Atlas of South Africa (ENPAT) and the Agricultural Research Council (ARC) will be studied.

Field Survey

- A detailed soil survey based on a 1-hectare (ha) grid must be undertaken where the proposed footprint area, and a 100 metre (m) buffer zone around the proposed footprint, will be assessed.
- In areas of great soil form variety, more sample points should be evaluated in order to establish soil form boundaries.
- Observations must be made regarding soil form, texture, soil profile depth, presence of soil structure and slope of the area.

Reporting

- A Soil, Land Use and Land Capability Scoping Report must be compiled that describes the desktop study as well as the site survey and adheres to the NEMA requirements.
- Once soil form groups have been outlined, the land capability classification of the area will be determined and mapped using the 2006 Guidelines of the ARC. Similarly, the agricultural potential of the study area must be assessed based on these guidelines, taking other agricultural potential calculation factors into consideration. The assessment of the potential impacts of the proposed project on the soil, land use and land capability properties of the project site must then be determined using the standard GCS risk rating methodology.

6.2.4 Socio-economic Assessment

Social Impact Assessment

The SIA report for the Project must include the following:

- Literature review, data collection and high-level stakeholder consultation;
- Scoping Report input and the determination of anticipated impacts (construction, operation, and closure phases);
- Environmental Impact Report input including a detailed impact assessment and rating of anticipated impacts (construction, operation, and closure phases); and
- A management plan applicable to anticipated social impacts.

Economic Impact Assessment

- Identify, predict and evaluate economic aspects of the environment that may be affected by the project activities and associated infrastructure; and
- Advise on the alternatives that best avoid negative impacts or allow to manage and minimise them to acceptable levels, while optimising positive effects.

Site Visit

Urban-Econ will contact the concerned surface owners and provide them with a description of the proposed project team, the dates of the proposed site assessments as well as the equipment to be used. Any special requests for access will be communicated, and the contact details of the surface owners will be provided to the specialist team. In the event that the proposed site visit dates change from what was presented originally, the deviations must be discussed and confirmed between the surface owner and specialist prior to the site visit.

Site visits/consultations can only be initiated once the final project schedule has been agreed to with Phumaf. This will be discussed directly with both the social and economic specialists directly once the schedule has been finalised.

6.2.5 Ecological and Wetland Assessment

Literature Review

Desktop information on the expected biodiversity of the project area, including expected vegetation communities must be obtained from relevant sources. In addition to information on expected species assemblages, the project area will be assessed in terms of the following:

- North West Biodiversity Sector Plan (NWBSP, 2015);
- Relevant SANBI GIS data regarding ecologically important and sensitive areas in terms of fauna will be incorporated where relevant.
- Whether the study area is situated within a Listed Ecosystem in terms of Section 52 of the National Environmental Management: Biodiversity Act (Act 10 of 2004) or in a vegetation that is classified as Vulnerable or Endangered;
- Whether any portion of the vegetation community in the project area is protected by legislation;
- The presence of suitable habitats for faunal or floral species of conservation concern;
- Whether any portion of the project area contributes to important ecological processes such as ecological corridors, hydrological processes and whether important topographical features such as ridges are present in the project area; and
- Whether rivers and wetlands in the project area are listed as Freshwater Ecosystem Priority Areas (FEPAs) (SANBI, 2011).

Baseline Surveys

- Vegetation communities must be sampled using random stratified sampling. This method entails the mapping of vegetation units prior to the site visit and placing at random 5 – 10 sampling plots per vegetation unit to obtain a species list. Size of sample plots will fit the type of vegetation as per methods used in the compilation of VEGMAP.

Each sample plot will be sampled using the Braun-Blanquet methodology (Westhoff and Van der Maarel, 1978).

- Terrestrial faunal surveys will include field assessments, direct sightings and indirect evidence (calls, scat, tracks, etc.) of fauna species must be recorded. Surrounding areas, up- and down-slope must be scanned as needed. Since fauna may not always be directly observed, the field survey must focus on identifying habitat and micro-habitats to determine the likelihood of habitat specialists occurring on site with focus on ecologically significant species. An assessment of likelihood of occurrence of ecologically significant species must be provided, based on site survey findings.
- An assessment and mapping of any sensitive areas in terms of fauna must be provided. Identification of areas of current and future potential threat to fauna species, with focus on ecologically significant species. The development of a fauna management and monitoring plan is required.
- The wetland areas must be delineated in accordance with the DWAF (2005) guidelines.

Impact Assessment

Once the baseline assessment has been completed the specialists will commence with the impact assessment. The significance of potential impacts on the above-mentioned attributes will be assessed using the GCS impact assessment matrix. Suitable and practically implementable mitigation measures will be identified, and the significance of potential impacts will be reassessed post mitigation.

7 POTENTIAL IMPACTS

Based on the investigation of the receiving environment, as well as the understanding of activities to be carried out for the construction and operation phases of the project, the potential impacts during the various phases of the operation will be identified and addressed in detail during the EIA phase. Potential impacts that have been identified at this stage are presented in Table 7.1.

Table 7.1: Preliminary impacts identified.

POTENTIAL ENVIRONMENTAL IMPACT	SPECIALIST STUDY TO INVESTIGATE POTENTIAL IMPACT
Altering of geological strata	Soils, Land Capability and Agricultural Potential Assessment
Alteration of natural topography	Soils, Land Capability and Agricultural Potential Assessment
Loss of soil resource, land use and land capability	Soils, Land Capability and Agricultural Potential Assessment
Contamination of soil resources	Soils, Land Capability and Agricultural Potential Assessment
Change in drainage patterns	Design Stormwater Management Plan Implement Environmental Awareness and Response Plan
Contamination of surface water resources	Design Stormwater Management Plan and Environmental Management Plan Environmental Awareness and Response Plan
Potential contamination of groundwater resources	Environmental Management Plan
Disruption of ecological connectivity	Environmental Management Plan
Loss and degradation of faunal habitat	Environmental Management Plan
Loss of biodiversity	Environmental Management Plan
Spreading of weeds and alien vegetation	Environmental Management Plan
Noise nuisance	Environmental Management Plan
Fugitive dust releases	Environmental Management Plan
Possible damage to heritage artefacts	Environmental Management Plan and Environmental Awareness and Response Plan
Increase in crime	Environmental Management Plan Stakeholder Communication Strategy and Grievance Mechanism

8 RECOMMENDATIONS

8.1 Socio-Economic Assessment

- Prioritise employment of construction workers from nearby areas and ensuring the transfer skills
- Create strict controls on the roads leading to the facility and prevent people from parking on the side of the roads, driveways, and other public areas that may inconvenience other road users and cause traffic congestion
- Vehicles should be towed away if parked in the non-designated areas and such practices should be made abundantly clear among the construction workers and construction managers to avoid unnecessary conflicts
- The construction of the development should take place during the day where most of the residents in the area are anticipated to be at school or work or occupied by other activities. No construction activities are anticipated to take place during the day
- Utilise domestically produced building material and equipment and prioritise the procurement of goods and services from the local SMMEs
- Prioritise local people for employment opportunities
- Provide contracts that stipulates the required hours of work as well as the pay rate/wage or salary amount for labour during construction and operational phase
- Employment contrasts should stipulate the duration of employment (temporal or permanent) depending on the phase of the development and the salary must be competitive or adhere to the minimum wage standards
- Ensure adequate parking on site to accommodate the number of people in the development.

8.2 Heritage Assessment

It is recommended by the specialist that the proposed project can commence on the condition that the following recommendations are implemented as part of the EMPr and based on approval from SAHRA:

- Feature 1, 2, 4, 5 and 6 must be monitored during construction to determine if in-situ subsurface layers are present;
- It is recommended that Feature 3 should be monitored during earthworks in the area;
- No mitigation is required for Feature 7, unless it is proven that the site is older than 60 years;

- Confirmation of any grave sites in the study area as part of the social consultation process;
- Graves should ideally be retained in-situ in open spaces; and
- Implementation of a chance find procedure (archaeological and paleontological) for the project.

8.3 Paleontological Assessment

Based on the lack of any previously recorded fossils from the area, it is highly unlikely that any fossils would be preserved in the overlying soils and sands of the Vryheid Formation. Dolerite does not preserve fossils and the uppermost potentially fossiliferous layer is more than 50 m below the surface so would not be affected by any urban development. A Fossil Chance Find Protocol is recommended for the very small chance that the excavations might reveal some fossil plants. There would be no fossils in the surface soils.

8.4 Ecology and Biodiversity Assessment

- The open grassland areas must be avoided as far as reasonably practicable;
- Vegetation clearing must be limited to the site plan only. No unnecessary vegetation clearing is permitted;
- An Invasive Alien Plant Species (IAPS) management plan must be compiled prior to the commencement of the construction phase. This plan must be implemented throughout the construction and operational phase and must be monitored by the ECO;
- Soil disturbance must be limited to the site plan only. Construction machinery may only use the existing pathways. Suitable drip trays must be placed beneath stationary construction machinery;
- No fires are permitted on site;
- Dust control measures must be implemented;
- Erosion control measures must be implemented throughout the site. Stockpiles may not exceed 5 m in height and must be covered using an impermeable material; and
- Suitable waste receptacles must be placed around the site which are both scavenger and wind proof.

8.5 Market Study

The recommendations provide two different scenarios that incorporate development potential and requirements for a mixed use residential development.

Scenario 1

This scenario considers all residential units within a given year. Looking at the requirements and demand for various facilities for the proposed mixed-use development. The following are recommended:

- An agreement is established with tertiary institutions in order to secure a sustainable number of students for the proposed student housing development
- The retail and office space are student-orientated to ensure that the student housing development is supported with the necessary retail and office services and thereby making the provision of student housing more sustainable.

Scenario 2

This scenario excludes CRU and subsidised housing. Looking at the requirements and deman for various facilities for the proposed mixed-use residential development. The following are recommended:

- That each unit accommodate four students (beds). Therefore, the projected demand for units is 926 for the year 2021 and is expected to grow to 1 188 units by 2030.
- An agreement is established with tertiary institutions in order to secure a sustainable number of students for the proposed student housing development.
- The office space developed for Unitas Park Extension 16 be used for these industries.
    - Wholesale and retail trade, catering and accommodation;
    - Finance, insurance, real estate and business services; and
    - Community, social and personal services.
- With the development of a student-orientated living space, it is recommended that office space/s are mainly focused on providing essential services to students and thereby creating a student friendly environment.

8.6 Traffic Impact Assessment

- The developers of the latent rights developments are required to contribute towards roads and intersection upgrades. The upgrading will be as per the requirements of ELM and GDRT.
- It is a requirement that pedestrian access must be provided to and from the development, particularly from public transport facilities. Currently, they are no formal transport facilities in the vicinity of the development exist.

- The planning of the development will however take into consideration possible future road-based public transport infrastructure along various provincial routes (existing or planned).
- The conflict between vehicular and pedestrian/bicycle traffic must be minimised.
- It is recommended that road K180 be provided with a pair of public transport lay-bys in the form of bus and taxi stops at each access point where access to the township is gained.
- The proposed lay-bys be constructed to the appropriate design standards of the relevant roads authority.

9 LIMITATIONS AND ASSUMPTIONS

9.1 Heritage Impact Assessment

The only limitation identified for the heritage assessment was the inaccessibility to the majority of the site. The Chance Find Protocol has been recommended, should any artefacts or structures of interest arise.

9.2 Paleontological Impact Assessment

Based on the geology of the area and the paleontological record, it can be assumed that the formation and layout of the sandstones, shales, coal, dolomites, cherts, basalts and lavas of the early Proterozoic Transvaal Supergroup and Palaeozoic Karoo Supergroup, are typical for the country. As a result, it is not anticipated these formations will contain fossils in the early Proterozoic Transvaal Supergroup, and could contain fossils in the Palaeozoic Karoo Supergroup. No fossils have been reported from this area. Borehole cores for the coalmines indicate that the coal seams are far below the surface.

9.3 Agricultural Agro-Ecosystem Assessment

At the time of submission of the Version 1 report, no data has been obtained from the farmer(s) that cultivate the land on any historical production figures of the project area for the past five years. It is likely that this data will become available as the public participation process commences. No anticipated employment figures has yet been received from the developer and will be included in the report when available. Similarly, it is expected that the farmer who leases the land from the Gauteng Department of Human Settlements will be identified during the public participation process. He will then be asked to discuss the current employment opportunities created by his farming activities on the property.

It was also assumed that the desktop grazing capacity and field crop boundary data obtained from DAFF, has high correlation with the actual conditions on site. No other uncertainties and gaps have been identified that may affect the conclusions made in this report.

9.4 Socio-Economic Assessment

In terms of the primary data, information could be gathered due Corona Virus pandemic and the lockdown that was announced on March 26, 2020. While all due care was taken to ensure that the assessment of impacts is accurate (and follows the conservative approach), provision of additional data could potentially impact the assessment of the significance of some impacts. Project-related information supplied by the team involved in the project for the

purpose of the analysis is assumed to be reasonably accurate. Thus, all impacts are analysed based on this information. Any changes hereon cannot be accounted for in the analysis.

The secondary data sources used to compile the economic baseline (dynamics of the economy and labour force), although not exhaustive, can be viewed as being indicative of broad trends within the study area. Possible impacts, as well as stakeholder responses to these impacts, cannot be predicted with complete accuracy, even when circumstances are similar, and these predictions are based on research and years of experience, taking the specific set of circumstance into account.

10 CONCLUSION AND WAY FORWARD

10.1 Conclusion

Local knowledge, professional experience and specialist knowledge of the area have all been used to identify the potential environmental issues associated with this development and the resultant potential environmental impacts. There is no guarantee that all the potential impacts arising from the proposed development have been identified within the Scoping Phase, however the report provides an outline of the established measures that were taken to best identify all the potential impacts. The purpose of the Scoping Phase is NOT to assess and mitigate the potential environmental impacts and issues identified but rather to scope them and determine which need further investigation before an assessment can be undertaken.

The circulation of this Draft Scoping Report for public comment aims to give the public a chance to review the outcomes of the Scoping Process and identify additional possible issues that have not been identified. This will further enhance the rigour of the scoping process. The Plan of Study for EIA outlines the strategy to identify and assess all these potential impacts and concerns in the Impact Assessment Phase.

10.2 Way Forward

The Draft Scoping Report will be submitted to all I&AP's for a 30 day comment period. All comments received from I&AP's will be included in the Comments and Response Report and included as an appendix to the Final Scoping Report.

Thereafter the Final Scoping Report, including the Plan of Study for EIA, will be submitted to the GDARD for review. Upon receipt of comment from the GDARD regarding the Final Scoping Report, the Terms of Reference for any further studies will be amended should it be required, and the studies initiated.

Following completion of the specialist studies and assessment of the impacts, a Draft Environmental Impact Report will be compiled and will follow a similar public participation procedure to that undertaken for the Scoping Phase whereby opportunities for engagement will be provided through stakeholder meetings and dissemination of project information. I&APs will, again, be afforded the opportunity to review the Draft Environmental Impact Report prior to submission to GDARD for assessment.

11 UNDERTAKING BY EAP

11.1 UNDERTAKING REGARDING CORRECTNESS OF INFORMATION

I, Gerda Bothma, herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected Parties received since project announcement, have been correctly recorded in the report.

Signature of the EAP

Date: February 2021

11.2 UNDERTAKING REGARDING LEVEL OF AGREEMENT

I, Gerda Bothma, herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with Interested and Affected Parties and stakeholders since announcement of the project, has been correctly recorded and reported herein.

Signature of the EAP

Date: February 2021

APPENDIX A

Environmental Assessment Practitioner (EAP) Declaration

GCS Water & Environmental Consultants

ADDENDUM 3

10. DECLARATION OF THE EAP

I **Gerda Bothma**, declare that -

- I act as the independent environmental practitioner[1] in this application for **Gauteng Rapid Land Release Programme: Unitas Park – Extension 16;**
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation, policies and guidelines;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public at large and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties, state department and competent authority will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- all the particulars furnished by me in this form are true and correct;
- I will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and

Signature of the Environmental Assessment Practitioner:

GCS

Name of company:

2020/10/27

Date:

Signature of the Commissioner of Oaths:

2020-10-27

Date:

CHIEF TELLER

Designation:

Commissioner of Oaths Official stamp (below)

KLOOF 3640
2020-10-27
02

RONALD NAIDOO
COMMISSIONER OF OATHS EX OFFICIO
CHIEF LEGAL ADVISOR
SHOP 210, VILLAGE MALL,
33 VILLAGE ROAD, KLOOF, 3610

[1] In the event where the EAP or specialist is not independent (Regulation 13(2) and (3) of the EIA Regulations, 2014), the proponent or applicant must, prior to conducting public participation, appoint another EAP or specialist which meets all the general requirements including being independent, to externally review all work undertaken by the EAP or specialist, at the applicant's cost appointed to manage the application.

APPENDIX B

Environmental Assessment Practitioner (EAP)
Curriculum Vitae (CV)

GCS
Water & Environmental
Consultants

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Gerda Bothma

Registration Number: 117348

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following fields(s) of practice (Schedule 1 of the Act)

Environmental Science (Professional Natural Scientist)

Effective **15 November 2017** Expires **31 March 2021**

Chairperson

Chief Executive Officer

To verify this certificate scan this code

Gerda Bothma

Senior Environmental Consultant

CORE SKILLS

- Project Management
- Technical & Impact Assessment Guidance
- Environmental Assessment
- Water Use Licencing
- Waste Management Licencing
- Environmental & Waste Auditing and Compliance Monitoring

DETAILS

Qualifications

- B.Sc. Microbiology (Honours) University of Pretoria 1996
- B.Sc. Biological Sciences University of Pretoria 1994

Memberships

- International Association for Impact Assessors of South Africa (IAIA)
- Institute of Waste Management of South Africa (IWMSA)
- SACNASP (No.117348) (South African Council for Natural Scientific Professionals)

Languages

- Afrikaans
- English

Countries worked in:

South Africa, Zambia, Namibia

PROFILE

Gerda has over 20 years' experience within the environmental and waste management field and strives to deliver custom environmental services to clients.

Gerda 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. Gerda 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. Gerda 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.

Gerda has specialist skills in the following areas:

- Project proposals, planning, costing and timing
- Project and Client Management
- Authority Liaison
- Basic Assessments & Scoping/EIA Processes
- Compilation
- Amendment of EA's & EMP's
- Facilitation of Public Participation Processes & stakeholder engagement
- IWULA & IWWMP Applications
- Environmental Control Officer (ECO) duties
- Environmental Compliance Auditing (IFC Performance Standards & Equator Principles)
- Mentorship & Guidance

Year	Client	Project Description	Role/ Responsibility
Strategic and Environmental Guidance Projects			
1999 to 2003	Gauteng Department of Agriculture, Conservation & Environment	Development of a Health Care Risk Waste Management Strategy for Gauteng.	Part of Development Team
2001 to 2003	Gauteng Department of Agriculture, Conservation & Environment	Development of Minimum Domestic Waste Collection Standards for Gauteng Province.	Part of Development Team
2002	Gauteng Department of Agriculture, Conservation & Environment	Development of new EIA guidelines and regulations for the Gauteng Province.	Part of Development Team
2005	Gauteng Department of Agriculture, Conservation & Environment	GDACE Green Procurement Project: Development of the GDACE Green Procurement Policy, Gauteng	Project Manager & Reviewer
2008	GAUTRAIN Project Engineers (i.e. KV3 Engineers)	Environmental Assistance for the Gautrain Project: Environmental Evaluation of various documentation and engineering designs in terms of their environmental compliance.	Project Manager & Reviewer
2009	Department of Environmental Affairs	Alignment of MIG Project Process with EIA Process: Evaluation of the EIA process as well as the MIG process in order to produce a process alignment guideline to the municipalities to streamline the two processes.	Part of Development Team
Environmental Feasibility and Screening			
2008	Nu Way-property Developments	Management of Environmental Screening and Due Diligence Assessment for several proposed Nu Way-property Developments, Gauteng.	Project Manager
2008	Department of Water Affairs	Mokolo Croc WAP Environmental Feasibility and Screening, Limpopo.	Project Manager & Senior Environmental Assessment Practitioner (EAP)
2016	Kwadukuza Municipality	Environmental Feasibility for Civil Engineering Project Foxhill Road Alignment and Construction, Tongaat, Kwa-Zulu-Natal.	Environmental Project Leader
2016	King Sabata Dalindyebo Local Municipality (C/O OR Tambo District Municipality)	Environmental Screening Investigation of six proposed development corridors for the Mthatha Bulk Water Infrastructure Presidential Intervention – Phase 2: Secondary Bulk Infrastructure project.	Environmental Project Leader
Development Environmental Assessments			
2003 to 2005	ABSA DevCO	Environmental Impact Assessment for a change of land-use from agricultural to Residential and Town Development of the farm Brakfontein 399 JR, Centurion, Gauteng.	Project Manager & Senior EAP
2005 to 2010	Air Traffic Navigation Services	The project entails the upgrading of existing, and the provision of new air navigation	Project Manager & Senior

Year	Client	Project Description	Role/ Responsibility
	(ATNS)	sites (27 in total) throughout South Africa. Civil and electrical infrastructure to the sites needed to be upgraded to accommodate the equipment. Various Environmental Impact Assessments for various individual projects in various provinces within South Africa.	EAP
2006 to 2009	Amathole District Municipality	Elliotdale Rural Sustainable Human Settlement Pilot Project Environmental Impact Assessment. Responsible for the environmental assessment process which was based on a strategic approach for the Elliotdale Rural Housing Project, Elliotdale, Eastern Cape.	Project Manager & Senior EAP
2007	Elkem Ferroveld	Environmental Basic Assessment for the upgrading and expansion of the Ferroveld Plant in Ferrometals, Emahlaheni, Mpumalanga.	Project Manager & Senior EAP
2008	ABSA DevCO	Environmental Impact Assessment for a change in land use from agricultural to Residential and Town development of Montana X40, Pretoria, Gauteng.	Project Manager & Senior EAP
2012	Transnet Capital Projects	Environmental Basic Assessment and technical environmental investigations for the proposed expansion of the existing tug jetty and construction of a new tug jetty for Transnet Capital Projects in the Port of Durban, KwaZulu-Natal.	Project Manager & Senior EAP
2014 to 2016	Dube TradePort	Environmental Impact Assessment for the proposed construction of the Dube TradePort TradeZone 2 in La Mercy, KwaZulu-Natal.	Project Manager & Senior EAP
2014 to 2017	Dube TradePort	Environmental Impact Assessment for the proposed Support Precinct 2 Development in La Mercy, KwaZulu-Natal.	Project Manager & Senior EAP
2016 to 2017	Areena Resort	Application for rectification in terms of S24G and associated Environmental Basic Assessment for the alleged unlawful construction activities at the Areena Resort, Great Kei Municipality, Eastern Cape.	Project Manager & Senior EAP
2016 to 2017	Areena Resort	Application for rectification in terms of S24G and associated Environmental Basic Assessment for the alleged unlawful construction activities on Hillsdrift Farm, Great Kei Municipality, Eastern Cape.	Project Manager & Senior EAP
2018 to 2019	Watchman Properties (Pty) Ltd	Environmental Basic Assessment for the proposed Vendome Residential Development on Portion 1 of Farm 1766 and Portion 2 of Farm 1766, Paarl, Western Cape, South Africa.	Project Manager & Senior EAP
2018 to 2019	Keysha Investments 213 (Pty) Ltd	Environmental Basic Assessment for the proposed River Farm Estate Development and associated infrastructure on remainder of farm Rivierplaas No. 1486, Erf 111 and Erf 197, Paarl, Western Cape, South Africa.	Project Manager & Senior EAP
2018 to 2019	Paarl Vallei Developments (Pty) Ltd	Environmental Basic Assessment for the proposed Paarl Valleij Retirement Village Development, Paarl, Western Cape, South Africa.	Project Manager & Senior EAP
2018 to 2019	Val de Vie Investments (Pty) Ltd	Parallel Substantive Amendment Application process for the authorised Pearl Valley II & Levendal Residential Developments, Paarl, Western Cape, South Africa.	Project Manager & Senior EAP
Renewable Energy Environmental Assessments			
2011	Farmsecure Carbon	Environmental Basic Assessment and Water Use License Application process for a proposed Biogas Waste to Energy project for a pig farm, Mooiriver, KwaZulu-Natal.	Project Manager & Senior EAP

Year	Client	Project Description	Role/ Responsibility
2018 to 2019	GPIPD – Doornfontein Solar Farm (Pty) Ltd	Environmental Impact Assessment for the proposed 230 MW Doornfontein Photovoltaic Solar Energy Facility (PVSEF) located on Remainder of Farm 118, Doornfontein, Piketberg, Bergrivier Local Municipality, Western Cape.	Project Manager & Senior EAP
2018 to 2019	GPIPD – Kruispad Solar Farm (Pty) Ltd	Environmental Impact Assessment for the proposed 150 MW Kruispad Photovoltaic Solar Energy Facility (PVSEF) located on Remainder of Farm 120, Kruispad, Piketberg, Bergrivier Local Municipality, Western Cape.	Project Manager & Senior EAP
2018 to 2019	Brandvalley Wind Farm (Pty) Ltd	Substantive Amendment Application for the authorised 140 MW Brandvalley Wind Energy Facility (WEF) located within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Northern and Western Cape Provinces.	Project Manager & Senior EAP
2018 to 2019	Copperton Wind Farm (Pty) Ltd	Non-Substantive Amendment Application to update the information of the Holder of the Environmental Authorisation & an EMPr Amendment Process to update the Airstrip Alignment and to provide an updated "outcomes based" EMPr for the Copperton Wind Energy Facility near Copperton in the Northern Cape.	Project Manager & Senior EAP
2018 to 2019	WKN Windcurrent SA (Pty) Ltd	Environmental Impact Assessment for the proposed 150 MW Haga Haga Wind Energy Facility (WEF) & Environmental Basic Assessment for the associated Haga Haga Overhead Powerline (OHPL) in Haga Haga, Great Kei Local Municipality, Eastern Cape.	Project Manager & Senior EAP
Mining Environmental Assessments			
2007	Chris Hani Municipality	Environmental Assessment and DME Licence Application on behalf of Chris Hani Municipality. Responsible for exemption application from Mining Permit and Environmental Management Programmes for 17 borrow pits in Middelburg, Eastern Cape.	Project Manager & Senior EAP
2010	Samancor Chrome Limited	The Lwala Greenfields Mine and Smelter EIA and EMP. Responsible for the Environmental impact assessment and technical investigations for the waste management issues for the proposed development of a new chrome smelter project in the Steelpoort area, Limpopo.	Project Manager & Senior EAP
2011	Xtrata Alloys	Xtrata Alloys Western Mines PSV application for authorization in terms of the MPRDA. Responsible for the undertaking of the EIA and compilation of the amended EMPr and technical environmental investigations for the proposed development of an open cast mine in Rustenburg, North West.	Project Manager & Senior EAP
Waste Management Environmental Assessments			
2003	Assmang Chrome Machadodorp	Environmental Impact Assessment for the permitting of the H:H Hazardous Waste Disposal Facility at Assmang Chrome, Machadodorp.	Senior EAP
2004	Emfuleni Local Municipality	Environmental Impact Assessment for the closure of the Zuurfontein Landfill site for the Emfuleni Local Municipality, Sedibeng, Gauteng	Senior EAP
2004	Ekurhuleni Municipality	Environmental Impact Assessment for the closure of the Sebenza Landfill Site for the Ekurhuleni Municipality, Gauteng.	Senior EAP
2004	Tzaneen Local Municipality	Application for authorisation and EIA for the permitting of an existing solid waste disposal site for the Tzaneen Local Municipality, Mpumalanga.	Senior EAP

Year	Client	Project Description	Role/ Responsibility
2006	Samancor Chrome Middelburg	Environmental Basic Assessment for the permitting of the existing Slag Waste Disposal facility for Samancor Chrome Middelburg, Mpumalanga.	Senior EAP
2006	Samancor Chrome Ferrometals	Environmental Basic Assessment for the permitting of the existing Slag Waste Disposal facility for Samancor Chrome Ferrometals Witbank, Mpumalanga.	Senior EAP
2007	Steve Tshwete Municipality	Environmental Impact Assessments for four Solid waste Transfer Stations for the Steve Tshwete Municipality, Mpumalanga.	Senior EAP
2008	Assmang Chrome Machadodorp	Environmental Impact Assessment for the expansion of the existing Slag Waste Disposal Facility at Assmang Chrome. Responsible for the EIA application for authorization for the proposed expansion project in Machadodorp, Mpumalanga.	Project Manager & Senior EAP:
2010	ArcelorMittal	ArcelorMittal BOF Slag Disposal site licensing of new site and closure of old site, Newcastle, KwaZulu-Natal.	Project Manager & Senior EAP:
2010	Lekwa Municipality	Waste Management License Application for authorization and the conducting of an EIA and technical environmental investigation for the proposed development of two landfill sites for the Lekwa Municipality, Mpumalanga.	Project Manager & Senior EAP:
2015 to 2017	Umgungundlovu Municipality	Advanced Solid Waste Management Project for Umgundgundlovu Municipality for proposed Materials Recovery Facilities located in various Local Municipalities, Umgungundlovu Municipality, KwaZulu-Natal.	Project Manager & Senior EAP:
Water and Wastewater Environmental Assessments			
2004	Msukaligwa Municipality	Environmental Impact Assessment for the installation of a water reticulation system at Nganga for the Msukaligwa Municipality, Mpumalanga.	Senior EAP
2006 to 2010	eThekwini Municipality: Water and Sanitation	Proposed upgrading of the WWTW capacity in the Northern Areas of the eThekwini Municipality. Responsible for EIA application for authorization, technical environmental investigations, and waste management license application for the proposed expansion of the WWT capacity in Northern eThekwini, KwaZulu-Natal.	Project Manager & Senior EAP
2008	Johannesburg Water	Environmental Management Services for Johannesburg Water: Environmental Impact Assessment (Exemption) for various individual projects related to the upgrading of the Bryanston Water Mains, Gauteng.	Project Manager & Senior EAP
2014 to 2017	eThekwini Municipality: Water and Sanitation	Environmental Basic Assessment and Water Use License Application for the Northern Aqueduct Water Augmentation Project (Phase 5), Durban, KwaZulu-Natal.	Project Manager & Senior EAP
Electrical and Linear Environmental Assessments			
2005	Magallies Water	Application for (exemption) authorisation on behalf of Magallies Water for the installation of the Rising Main from the Roodeplaat Waterworks to the Wallmannsthal Reservoir, in Wallmannsthall, Gauteng.	Senior EAP
2010	Moloto Rail Corridor Development	EIA for the Moloto Rail Corridor Development. Responsible for the EIA application for authorization and technical environmental investigations for the proposed Moloto Rail Corridor Development, Moloto, Gauteng.	Project Manager & Senior EAP

Year	Client	Project Description	Role/ Responsibility
2010	ESKOM	Environmental Basic Assessment of for the ESKOM Honingklip 88kV & ESKOM Randjiesfontein 88kV overhead line and Sub-Stations, Johannesburg, Gauteng.	Project Manager & Senior EAP
2010	ESKOM	Environmental Basic Assessment of for the ESKOM Ubertas Strategic Servitude Sub-Station, Johannesburg, Gauteng	Project Manager & Senior EAP
2014 to 2017	Msunduzi Municipality	Environmental Impact Assessment for the proposed Msunduzi IRPTN project, Pietermaritzburg, KwaZulu-Natal	Project Manager & Senior EAP
Environmental and Waste Management Compliance Monitoring and Auditing			
2005 to 2009	Sedibeng District Municipality	Auditing of Zuurfontein and Boitshepi Landfill sites for the Sedibeng District Municipality, Gauteng.	Part of Audit Team
2006 to 2009	ABSA DevCO	Environmental Compliance monitoring in accordance with relevant authorisation conditions and environmental management plans for the Amberfield Development on the farm Brakfontein 399 JR, Centurion, Gauteng.	Project Manager & Environmental Control Officer (ECO)
2007 to 2009	ABSA DevCO	Environmental Compliance monitoring in accordance with relevant authorisation conditions and environmental management plans for the Zambezi Estate Development, Montana, Gauteng.	Project Manager & ECO
2008 to 2009	Steve Tshwete Municipality	Auditing of Middelburg Landfill Site for the Steve Tshwete Municipality, Mpumalanga.	Part of Audit Team
2008 to 2009	ABSA DevCO	Environmental Compliance monitoring in accordance with relevant authorisation conditions and environmental management plans for the Cedar Creek Development, Fourways, Gauteng.	Project Manager & ECO
2017 to 2018	Dube TradePort	Environmental Compliance monitoring in accordance with relevant authorisation conditions and environmental management plans for the construction of TradeZone 2, Dube TradePort, La Mercy, KwaZulu-Natal.	Project Manager & ECO
2017	Richards Bay Minerals	Environmental Legal Compliance Audit to determine the level of compliance of Richards Bay Minerals' to their various mining, water and waste licenses and environmental authorisations and permits, Richards Bay, KwaZulu-Natal.	Project Manager & Environmental Auditor
2017 to 2018	eThekwini Municipality	Environmental Compliance monitoring in accordance with relevant authorisation conditions and environmental management plans for the construction of the Northern Aqueduct Phase 5, Durban, KwaZulu-Natal.	Project Manager & ECO
Integrated Water Use License Applications			
2010	FOSKOR	Integrated Water Use License Application for a new storage dam for FOSKOR, Richards Bay, KwaZulu-Natal.	Part of Project Team
2014 to 2015	SANRAL	Integrated Water Use License Applications as required for the proposed SANRAL N2 Road upgrade from Mthunzini to Empangeni, KwaZulu-Natal.	Project Manager & Senior EAP
2014	eThekwini Municipality: Roads	Integrated Water Use License Application for the proposed Realignment of Inanda Arterial Road, Durban, KwaZulu-Natal.	Project Manager & Senior EAP

Year	Client	Project Description	Role/ Responsibility
2015 to 2017	SMEC (Umzimkulu Municipality)	Integrated Water Use License Application for the proposed Licensing of the existing Umzimkhulu Waste Water Treatment Works, Umzimkhulu, KwaZulu-Natal.	Project Manager & Senior EAP
2014 to 2016	eThekwini Municipality: Roads	Water Use License Application for the proposed eThekwini BRT Route C1A, Durban, KwaZulu-Natal.	Project Manager & Senior EAP
Management and Master Plans			
2005	Livingstone Municipality	Development of the Livingstone Integrated Development Plan, Zambia.	Part of the Project Team
2008	Steve Tshwete Municipality	Development of an Integrated Waste Management Plan for the Steve Tshwete Municipality, Mpumalanga.	Part of the Project Team
2008	Kungwini Local Municipality	Development of an EMP (Framework) for Kungwini Local Municipality, Mpumalanga.	Part of the Project Team
2010	KZN Department of Public Works – Southern Region	Compilation of an Environmental Management Plan for the Fort Napier sewage upgrading project, Pietermaritzburg, Kwa-Zulu Natal.	Project Manager & Senior EAP

APPENDIX C
PPP Documents

APPENDIX C1
Current IAP database

Title	Last name	First name	Organisation	Position
Landowners and lawful occupiers (Directly Affected)				
Mr	Daniel	Molokomme	Department of Human Settlements (DHS) - Gauteng Provincial Government	Department Representative
Authorities				
			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
			Department of Human Settlements, Water and Sanitation	
Mr	Khathutshelo	Mudau	Department of Human Settlements, Water and Sanitation	Environmental Officer - Sedibeng Region
			Gauteng Department of Agriculture and Rural Development	
Mr	Dan	Motaung	Gauteng Department of Agriculture and Rural Development	Case Officer
Ms	Boniswa	Belot	Gauteng Department of Agriculture and Rural Development	Deputy Director: Strategic Administration Support
Ms	Malesela	Sehona	Gauteng Department of Agriculture and Rural Development	Administration and Support
			Department of Roads and Transport	
			Department of Roads and Transport	Environmental Officer
			Sedibeng District Municipality	
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 Mananger: 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
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
	Bassey	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
			Emfuleni Local Municipality	
Ms	Elize	Aucamp	Emfuleni Local Municipality	Ward Councillor
Ms	Mmatshepo	Mathumbo	Emfuleni Local Municipality	Executive Secretary to the Speaker
Mr	Lucky	Leseane	Emfuleni Local Municipality	Municipal Manager
	Amanda	van Onselen	Emfuleni Local Municipality	MM - Personal Assistant
Mr	Lekgotla	Motapane	Emfuleni Local Municipality	Town Planning Manager
	Xoli	Madiba	Emfuleni Local Municipality	Manager: Health, Social Development and Environment
			Emfuleni Local Municipality	Assistant Manager:Environment
	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
			South African Heritage Resources Agency (SAHRA)	
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)	
Business Forum				
Mr	Paul	Mosedi	Sedibeng Business Forum	
NGOs/ CBOs/ Parastatals				
Libraries (Public Places for review of documents)				
			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	
Media				

APPENDIX C2

Background Information Document (BID)

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

Unitas Park, Gauteng

January 2021

Phumaf Engineering Solutions

GCS Project Number: 19.0921

Client Reference: Unitas Park

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:
Unitas Park, Gauteng

Version – 01

January 2021

Phumaf Engineering Solutions

DOCUMENT ISSUE STATUS

Document Issue	V01		
GCS Reference Number	19.0921		
Title	Background Information Document: Unitas Park, Gauteng		
	Name	**Signature**	**Date**
Prepared by:	Lehlogonolo Mashego		December 2020
Reviewed by:	Gerda Bothma		January 2021
Approved by:	Gerda Bothma		January 2021

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 Scoping and Environmental Impact Assessment (S&EIA) Process, as well as other related parallel environmental processes;
- 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	
BID	Background Information Document
CRR	Comments and Response Report
DEIAR	Draft Environmental Impact Assessment Report
DHWS	Department Human Settlements, Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Plan
FEIAR	Final Environmental Impact Assessment Report
GCS	GCS Water and Environmental Consultants (Pty) Ltd
GDARD	Gauteng Department of Agriculture and Rural Development
GRLRP	Gauteng Rapid Land Release Programme
I&AP	Interested and Affected Party
NEMA	National Environmental Management Act, 1998 (Act 107 of 1998)
NWA	National Water Act, 1998 (Act 36 of 1998)
Phumaf	Phumaf Holdings (Pty) Ltd
PPP	Public Participation Process
S&EIA	Scoping and Environmental Impact Assessment

PUBLIC PARTICIPATION – CONTACT DETAILS

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

Email: lehlo@gcs-sa.biz

Postal Address: PO Box 2597
Rivonia
Johannesburg
2128

WHAT IS AN S&EIA 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 Scoping and Environmental Impact Assessment (S&EIA) and the Environmental Management Programme (EMP), in respect of the NEMA listed activities, which forms the legal basis of this authorisation.

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 S&EIA 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 (DHS) aims at fast tracking the release of serviced stands form 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).

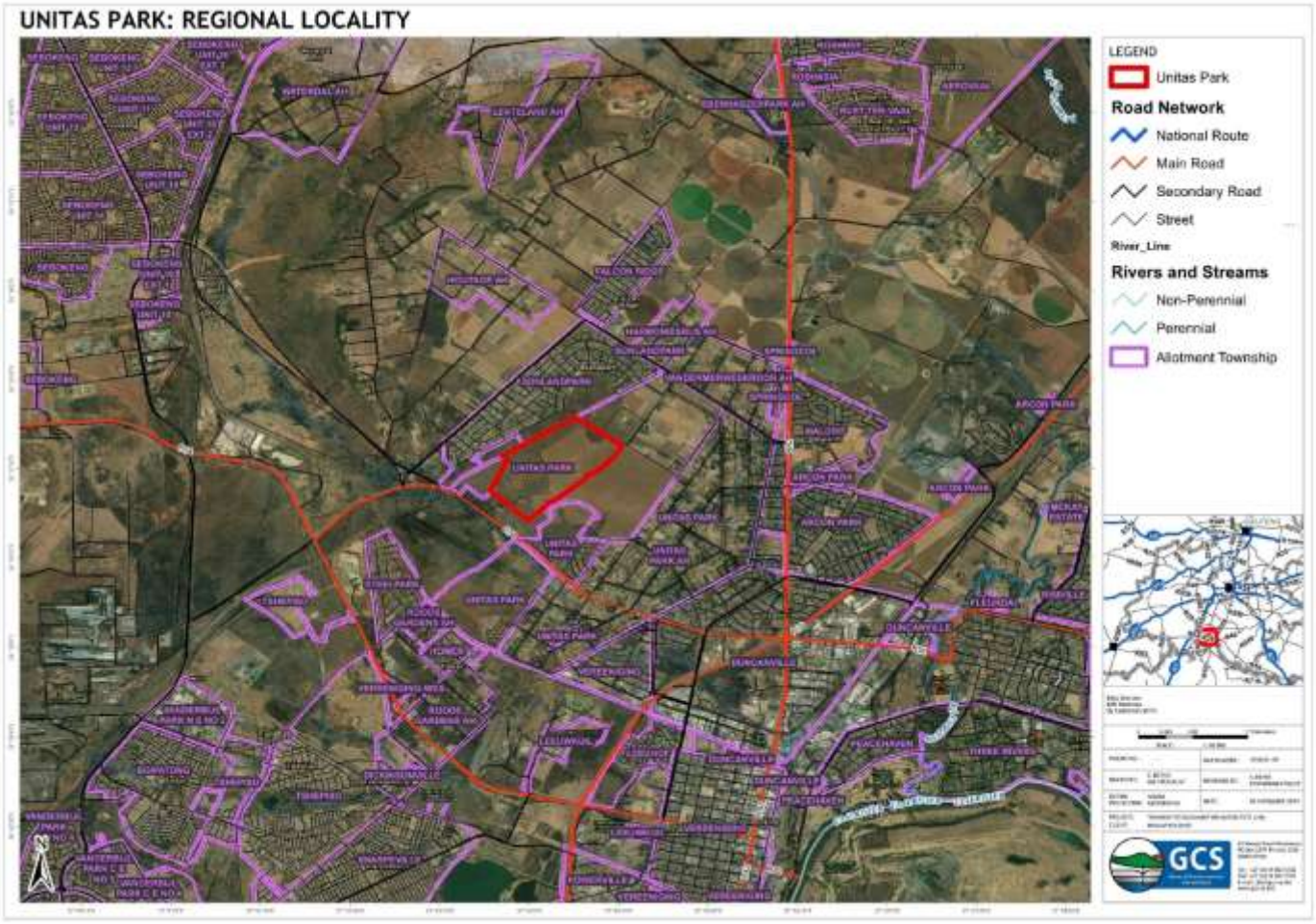


Figure 1: Site Locality Map and Regional Boundaries

PROJECT DESCRIPTION

The site is planned to have a township layout, with 2680 erven. This was approved; however, not proclaimed or registered due to constraints with the waste-water treatment capacity, and electricity upgrades required. The release strategy is for a proposed 7 250 units comprising of mixed high density and to achieve the proposed yield, the existing layout will have to be withdrawn and a new application submitted.

The area is located within Unitas Park, Vereeniging within the Sedibeng District Municipality and Emfuleni Local Municipality, 6 km north-west of the Vereeniging central business district (CBD), sandwiched between roads R54 and R42. The R82 is runs north-south approximately 2.3km to the east of the site. The N1 is about 11km to the west of the site and R54 runs through the site. Sebokeng lies to the north west of the site, with Vereeniging to the south east. The closest towns include Homer (3.1 km from the proposed site), Roods Gardens (3.3 km from the proposed site), Steelpark (4.9 km from the proposed site), Vereeniging (8.8 km from the proposed site) and Houtkop (9.6 km from the proposed site). Access to the site is via Skippie Botha and Langraad Roads and the predominant adjacent land use is residential and agricultural.

The area is currently zoned as Farmland on a dolomitic zone in terms of Geophysics. The site is approximately 149 hectares in extent and is owned by the Gauteng Provincial Government. The proposed site is currently vacant, with immediate adjacent land portions also being vacant. There is evidence of a wetland or some surface water on the site, as well as to the south east of the site. A drainage line appears to run from the site towards Houtkop Road to the south west, where the surface water drains under the road and continues to flow into a National Freshwater Ecosystem Protection Area (NFEPA). The buffer of the NFEPA includes a portion of the south west of the site.

Figure 2: Unitas Park Locality Map at 1:7 500

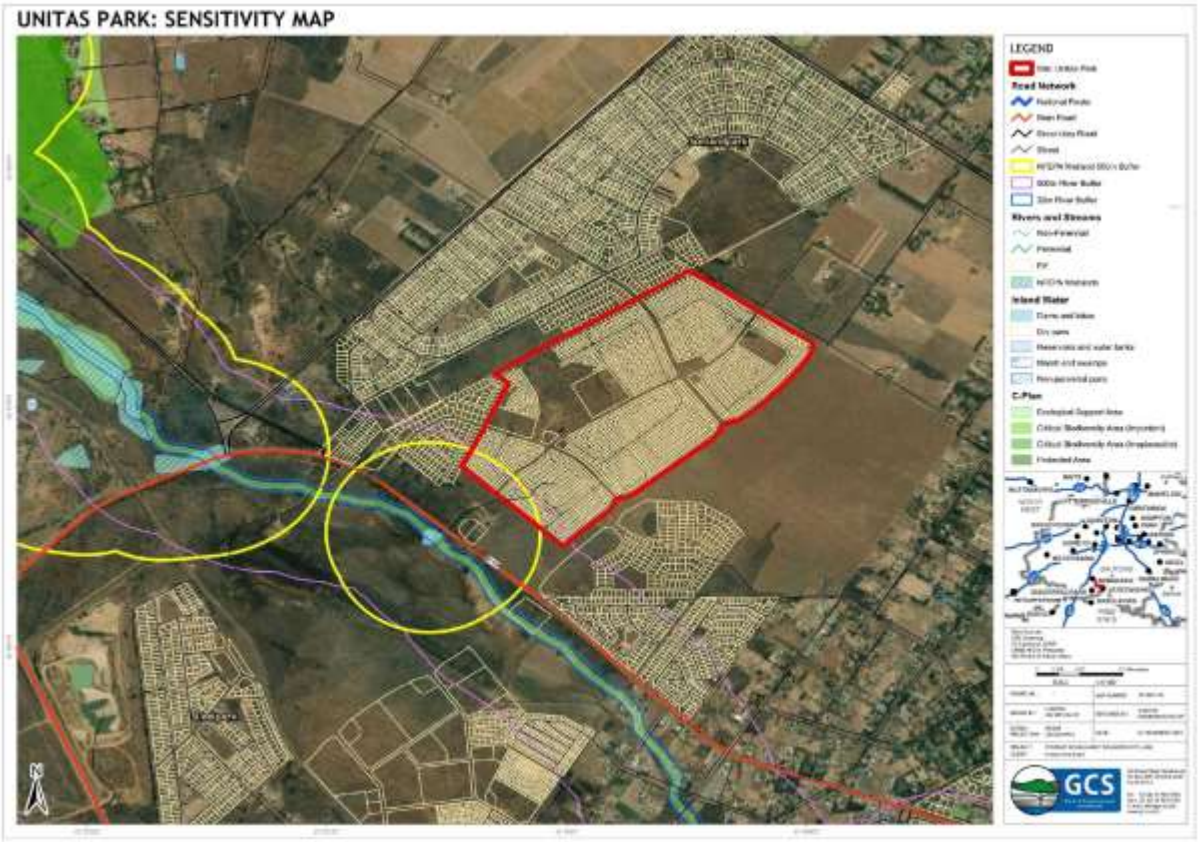


Figure 3: Unitas Park Sensitivity Map

LOCALITY

Province:	Gauteng
District:	Sedibeng District Municipality
Local Municipality:	Emfuleni Local Municipalities
Extent:	149 hectares
Zoning:	Farmland
Ownership:	Gauteng Provincial Government Deed No. T942/2015
Current Use:	Vacant
Nearest Towns:	Homer, Roods Gardens, Steelpark, Vereeniging and Houtkop
Release Strategy:	Mixed High Density
Farm Portions affected:	225 of Farm Houtkop 594IQ.

PROPOSED SPECIALIST ASSESSMENTS

The following specialist studies are proposed:

- Aquatic ecology and wetland assessment;
- Ecological assessment;
- Soils, land use, land capability assessment;
- Wetland and aquatics;
- Heritage assessment;
- Traffic assessment; and
- Socio-economic 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 Environmental Impact 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) R327, R325 and R324 of the 2014 NEMA Regulations respectively (as amended).

The listed activities (Table 1.1) triggered require an application for an EA in the form of an EIA 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
	Listing Notice 1 (GN R327)
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.*
25	*The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.*
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 —* *(i) the undertaking of a linear activity; or* *(ii) maintenance purposes undertaken in accordance with a maintenance management plan.*
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.*
	Listing Notice 2 (GN R325)
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.*
25	*The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of 15 000 cubic metres or more.*
	Listing Notice 3 (GN R324)
4	*The development of a road wider than 4 meters with a reserve less than 13.5 meters in* *c) Gauteng within* *(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.*
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, in* *c) Gauteng within* *(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.*
14	*The development of—* *(ii) infrastructure or structures with a physical footprint of10 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.* *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.*
15	*The transformation of land bigger than 1000 square metres in size to residential, commercial, retail, industrial or institutional used where such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.* *b) Gauteng* *(i) All areas.*

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:

Step 1: Notify I&APs and identify issues	• Notify I&APs of the project proposal; • Identify any issues/concerns of I&APs; • Provide I&APs with a BID on the project, including a locality map and a Registration and Comment Sheet; and • I&APS are required to register their interest in the project to receive further project information.
Step 2: I&AP review of Draft Scoping Report (DSR)	• Issues and concerns raised by I&APs are contained in a CRR; • The DSR is released for a **30-day** commenting period; and • All registered I&APs on the project database are notified in writing of the opportunity to comment.
To assist I&APs with their understanding of the project, a public meeting or consultation in a similar manner, to which all I&APs are invited or will be involved, will be held during the review period. Copies of the report will be made available on request from GCS.	
Step 3: Final Scoping Report (FSR)	• Comments received from I&APs during the review process are considered in the compilation of the FSR; and • The FSR is submitted to the Competent Authority.
Step 4: Draft EIR and EMP for I&AP review	• Compilation and release of a Draft EIR for a **30-day** review period.
Step 5: Final EIR and Draft EMPR	• The Final EIR, including the CRR and EMP will be compiled for submission to the Competent Authority for decision making.
Step 6: Environmental Authorisation and Appeal Period	• All registered I&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&APs will also be notified of the appeal period, as well as the manner of appeal.
Public Notification	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: • The placement of an advertisement in a regional newspaper; • Notices in English will be placed at the site; • Distribution of BIDs to landowners and occupiers of land adjacent to the proposed prospecting area and to I&APs on request; and • Local authorities will be notified in writing and automatically registered as I&APs.
How to comment	• Should you wish to register as an I&AP in order to be kept informed, please complete the registration form on the overleaf and submit to GCS via fax, post or email. • Any further enquiries can be directed to GCS telephonically, or via fax or email. • It is important that you provide your contact details so that we can respond to your comments or questions.
Kindly note that should you require any other party to be contacted, please provide their contact details as well.	

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

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:			

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

NOTES:

APPENDIX C3

Pre-Application Correspondence

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

Subject	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
Date	19 August 2020
Time	10h00
Attendance	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
Apologies	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 to 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

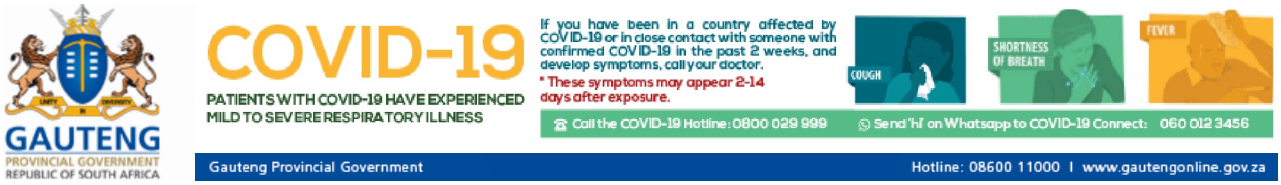
From: MOTAUNG, DAN (GDARD) <Dan.Motaung@gauteng.gov.za>
Sent: Monday, 31 August 2020 11:14 AM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Cc: Gerda Bothma <gerdab@gcs-sa.biz>
Subject: RE: Pre-Application Meeting Minutes

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



From: Lehlo Mashego <lehlo@gcs-sa.biz>
Sent: Monday, 31 August 2020 09:56
To: MOTAUNG, DAN (GDARD) <Dan.Motaung@gauteng.gov.za>
Cc: Gerda Bothma <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
Address 63 Wessel Road, Rivonia,

Established in 1987

Johannesburg,
South Africa

Consider the environment before printing this email.

APPENDIX C4
Advertisement Placed

GCS
Water & Environmental
Consultants

NOTICE IN TERMS OF SECTION 38(2) AND 62(6) OF THE EMFULENI MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAWS, 2018, FOR THE SIMULTANEOUS AMENDMENT OF THE VEREENIGING TOWN PLANNING SCHEME, 1992 AND THE REMOVAL AND AMENDMENT OF RESTRICTIVE CONDITIONS IN RESPECT OF ERF 616 VEREENIGING.

I, Mr. C.F. de Jager of Pace Plan Consultants, being the authorized agent of the owner of Erf 616 Vereeniging, situated on 45 Senator Marks Avenue, Vereeniging, hereby give notice in terms of Section 38(2) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, that I have applied to the Emfuleni Local Municipality in terms of Section 62(6) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, for the removal and amendment of certain restrictive conditions described in the Title Deed of Erf 616 Vereeniging and the simultaneous amendment of the Vereeniging Town Planning Scheme, 1992, in terms of Section 38 of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, with the rezoning of Erf 616 Vereeniging from "Residential 1" to "Institutional" for a place of public worship and ancillary offices, height of 1 storey, coverage of 50%, F.A.R. of 0.5 and building lines of 2m from the rear boundary and 0m on all other boundaries.

All relevant documents relating to the application will be open for inspection during normal office hours at the office of the Strategic Manager: Land Use Management, First floor, Old Trust Bank Building, corner of President Kruger Street and Eric Louw Street, Vanderbijlpark and at the office of the agent hereunder, for 28 days from 13 January 2021. Any person, who wishes to object to the application or submit representations in respect thereof, must lodge the same in writing to the Municipal Manager at the named address or to PO Box 3, Vanderbijlpark, 1900, or fax to 0169505533 within 28 days from 13 January 2021.

Agent address: Pace Plan Consultants, 70A Chopin Street, Vanderbijlpark SW 5, 1911, Tel: 0834465872, christo@paceplan.co.za: DATE OF FIRST PUBLICATION: 13 January 2021

F2884

NOTICE IN TERMS OF SECTION 38(2) AND 62(6) OF THE EMFULENI MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAWS, 2018, FOR THE AMENDMENT OF THE VANDERBIJL-PARK TOWN PLANNING SCHEME, 1987 AND THE SIMULTANEOUS AMENDMENT OF RESTRICTIVE CONDITIONS IN RESPECT OF ERF 535 VANDERBIJL PARK SOUTH EAST NO. 7.

I, Mr. C.F. de Jager of Pace Plan Consultants, being the authorized agent of the owner of Erf 535 Vanderbijlpark South East No. 7, situated on 26 James Chapman Street, Vanderbijlpark SE 7, hereby give notice in terms of Section 38(2) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, that I have applied to the Emfuleni Local Municipality in terms of Section 62(6) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, for the amendment of certain restrictive conditions described in the Title Deed of Erf 535 Vanderbijlpark South East No. 7 and the simultaneous amendment of the Vanderbijlpark Town Planning Scheme, 1987, in terms of Section 38 of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, with the rezoning of Erf 535 Vanderbijlpark South East No. 7 from "Residential 1" to "Residential 4" for student housing with a coverage of 50%, height of 3 storeys and building lines of 0m on the street and side boundaries and 1,0m from the rear boundary.

All relevant documents relating to the application will be open for inspection during normal office hours at the office of the Strategic Manager: Land Use Management, First floor, Old Trust Bank Building, corner of President Kruger Street and Eric Louw Street, Vanderbijlpark and the office of the agent hereunder, for 28 days from 13 January 2021. Any person, who wishes to object to the application or submit representations in respect thereof, must lodge the same in writing to the Municipal Manager at the named address or to PO Box 3, Vanderbijlpark, 1900, or fax to 0169505533 within 28 days from 13 January 2021.
Agent address: Pace Plan Consultants, 70A Chopin Street, Vanderbijlpark SW 5, 1911, Tel: 0834465872, christo@paceplan.co.za: DATE OF FIRST PUBLICATION: 13 January 2021

F2888

VANDERBIJLPARK TOWN PLANNING SCHEME, 1987
in compliance with clauses 12 and 19 of the Vanderbijlpark Town Planning Scheme, 1987, read with clause 36(2) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018 notice is hereby given that:
Mr. W. Louw the authorized agent, intends to apply to the Emfuleni Local Municipality for the Council's consent to the erection and use of buildings on the under mentioned land and/or to use the under mentioned land, namely:
ERF: 903 SUBURB: VANDERBIJLPARK SOUTH EAST 2 (S.E.2)
STREET ADDRESS: 51 HENDRIK VAN ECK BOULEVARD
AREA: 1107 m²
FOR: PLACE OF INSTITUTION for overnight facilities (only for patients) and treatment for patients in the bioknetic practice.
Particulars of the application will be filed with the Municipal Manager of the Emfuleni Municipal Council on or before 13 January 2021 and may thereafter be inspected at the office of the Manager: Land Use Management, Emfuleni Local Municipality,First Floor, EDP Building, c/o President Kruger and Eric Louw Streets, Vanderbijlpark during normal office hours or an electronic copy can be obtained from the applicant.
Any person having any objection to the erection and use of the proposed building or to the proposed use of land must lodge such objection, together with the grounds thereof, in writing, either per registered mail, hand delivered, facsimile or e-mail with the Municipal Manager, P.O.Box 3, Vanderbijlpark, 1900 or fax to (016) 9505533 or e-mail: erikavdw@emfuleni.gov.za and with the under mentioned address within twenty eight (28) days after the said date.
Address of the authorized agent: Mr. W. Louw, 1 Schubert Street, Vanderbijlpark, 1911 Cellular / Fax: 0833848784 / 0865463812,
e-mail: willemlouwvaal@gmail.com

F2902

Application regarding Portion 1 of Erf 2434, Three Rivers, Registration Division I.Q., Gauteng Province.
The public is hereby notified that the owner of the said erf, Me. Bianca Oosthuizen, appointed Conradie, van der Walt & Associates to submit an application to the Emfuleni Local Municipality (ELM). This application was submitted on 27 October 2019 in terms of Section 5(5) of the Gauteng Removal of Restrictions Act, 1996 (Act 3 of 1996); and Schedule 2 of the ELM Spatial Planning and Land Use Management By-law (2016) for the removal of restrictions A(b), B(b), and B(c) in Title T38073/2019, and for the simultaneous amendment of the Vereeniging Town Planning Scheme, 1992, by the rezoning of the property from "Residential 1" to "Residential 2" with a density of "20 dwelling units per hectare" restricted to a maximum of 8 dwelling units subject to certain conditions. The erf is located at 67 Brandmuller Drive, Three Rivers. The contact details of Munette Greeff, the agent handling the application, is 071 283 6541; munette@davido.co.za, or No. 187, Road 4, Eloff, 2211. The application is open for inspection during office hours at the Department of Land Use Planning, EDP Building, Cnr. of President Kruger and Eric Louw Street, Vanderbijlpark for 28 days from 15 January 2021. Objections, representations, or comments on the application must be submitted in writing or by email to the abovementioned office, or at PO Box 3, Vanderbijlpark, 1900, or AntonM@emfuleni.gov.za on or before 11 February 2021.

F2892

Reference Number: TC2020/10/07
26 December 2020
NOTICE TO AFFECTED PERSONS / KENNISGEWING AAN GEAFFEKTEERDE PERSONE
APPLICATION FOR REZONING OF PORTION 105 OF THE FARM ELANDSFONTEIN 334 IQ
APPLICANT: EVANN'S BUSINESS SOLUTIONS
OWNER: LILLIAN CHRISTINA COUTTS
REFERENCE NUMBER: TC2020/10/07
PROPERTY DESCRIPTION: PORTION 105 OF FARM ELANDSFONTEIN 334 IQ
PHYSICAL ADDRESS: PORTION 105 OF FARM ELANDSFONTEIN 334 IQ
DETAILED DESCRIPTION OF PROPOSAL:
APPLICATION FOR REZONING OF PORTION 105 OF THE FARM ELANDSFONTEIN 334 IQ.
NOTICE IS HEREBY GIVEN IN TERMS OF MIDVAAL LAND USE SCHEME 2017, READ TOGETHER WITH SECTION 38 OF THE MIDVAAL LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW 2017 AND THE SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, ACT 16 OF 2013
WE, EVANN'S BUSINESS SOLUTIONS, BEING THE AUTHORISED AGENT OF THE OWNER OF PORTION 105 OF THE FARM ELANDSFONTEIN 334 IQ, HEREBY GIVE NOTICE THAT WE ARE APPLYING FOR A REZONING IN TERMS OF MIDVAAL LAND USE SCHEME 2017, READ TOGETHER WITH SECTION 38 THE MIDVAAL LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW 2017 AND THE SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, ACT 16 OF 2013
THE LAND IS CURRENTLY ZONED AS "RURAL RESIDENTIAL" AS PER THE TOWN PLANNING SCHEME. PLANS OR PARTICULARS RELATING TO THE APPLICATION MAY BE INSPECTED DURING OFFICE HOURS AT THE FOLLOWING ADDRESS OF THE UNDERSIGNED: EXECUTIVE DIRECTOR: DEVELOPMENT PLANNING AND HOUSING, CIVIC STREET, MEYERTON
ANY PERSON HAVING AN OBJECTION TO THE APPROVAL OF THIS APPLICATION MUST LODGE SUCH OBJECTION IN WRITING WITH BOTH THE MUNICIPAL MANAGER, MIDVAAL MUNICIPALITY, PO BOX, 9, MEYERTON, 1960 AND THE UNDERSIGNED, NOT LATER THAN 28 DAYS FROM 26 DECEMBER 2020
REGARDS
APPLICANT : EVANN'S BUSINESS SOLUTIONS
ADDRESS : 101 KING FISHER ROAD, CARENVALE, ROODEPOORT
EMAIL : evannsbusiness@gmail.com
Cell : 078 207 1592

F2909

NOTICE IN TERMS OF SECTION 38(2) OF THE EMFULENI MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAWS, 2018, FOR THE AMENDMENT OF THE VEREENIGING TOWN PLANNING SCHEME, 1992, IN RESPECT OF ERF 844 BEDWORTH PARK.

I, Mr. C.F. de Jager of Pace Plan Consultants, being the authorized agent of the owner of Erf 844 Bedworth Park, situated on 35 Diana Avenue, Bedworthpark, Vereeniging, hereby give notice in terms of Section 38(2) of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, that I have applied to the Emfuleni Local Municipality for the amendment of the Vereeniging Town Planning Scheme, 1992, in terms of Section 38 of the Emfuleni Municipality Spatial Planning and Land Use Management By-Laws, 2018, with the rezoning of Erf 844 Bedworth Park from "Residential 1" to "Residential 4" with a coverage of 50%, height of 3 storeys, F.A.R of 1.5 and building lines of 2 metres from the rear boundary and 0 metres on all other boundaries.

All relevant documents relating to the application will be open for inspection during normal office hours at the office of the Strategic Manager: Land Use Management, First floor, Old Trust Bank Building, corner of President Kruger Street and Eric Louw Street, Vanderbijlpark or the office of the agent hereunder, for 28 days from 13 January 2021. Any person, who wishes to object to the application or submit representations in respect thereof, must lodge the same in writing to the Municipal Manager at the named address or to PO Box 3, Vanderbijlpark, 1900, or fax to 0169505533 within 28 days from 13 January 2021.

Agent address: Pace Plan Consultants, 70A Chopin Street, Vanderbijlpark SW 5, 1911, Tel: 0834465872, christo@paceplan.co.za: DATE OF FIRST PUBLICATION: 13 January 2021

F2886

NWU students represent Sedibeng

SEDIBENG.- North West University (NWU) Vaal is proud of these students who recently represented Sedibeng at the National Netball Championships in Bela-Bela, Limpopo. From left: Nomthandazo Dhlamini, Boitumelo Mato, Lerato Ntlaba, Sibongile Shabalala and Enid Matika. Absent is Lady Ngakane.

NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION APPLICATION PROCESS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR, UNITAS PARK, GAUTENG PROVINCE.

GCS Ref No: 19.0921
GDARD Ref No: 002/20-21/E0042

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 Unitas Park – Extension 16 Development has been identified for implementation. The proposed project entails the phased establishment of a mixed-use residential development inclusive of the following land uses: low, medium and high density residential; student village; mixed use; innovation hub; social/educational; public open space and sports facility.
The proposed project site is located on Portion 222 of the farm Houtkop 549 IQ within Unitas Park (Erf 2680), in-between the towns of Vereeniging, Sebokeng and Vanderbijlpark, falling within the Emfuleni Local Municipality and Sedibeng District Municipality. The site is approximately 149 hectares in extent, falls within the 2010 urban edge and is zoned as "agriculture".

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 calendar days** (i.e. the deadline for comments is **15 February 2021**) from the date of commencement (**15 January 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), the NWA and the National Heritage Resources Act (Act No. 25 of 1999):
- GN R327, 07 April 2017, Listing Notice 1 – Activities 12, 25, 27, and 28
- GN R325, 07 April 2017, Listing Notice 2 – Activities 15 and 25
- GN R324, 07 April 2017, Listing Notice 3 – Activities 4, 12, 14 and 15
- Section 21 of the NWA (Water Use License Application)
- Section 38 of the NHRA (Heritage Permitting)

The Draft Scoping Report and Supporting Documentation can be accessed at the following link from 15 January 2021:
- 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 February 2021**, as follows:
Lehlogonolo Mashego
Tel: 011 803 5726
Fax: 011 803 5232
E-mail: lehlo@gcs-sa.biz
Mail: P O Box 2597, Rivonia, 2128

APPENDIX C5
Site Notices

LOCATION	PROOF	
Strategic Location 1		
Strategic Location 2		

Strategic Location 3

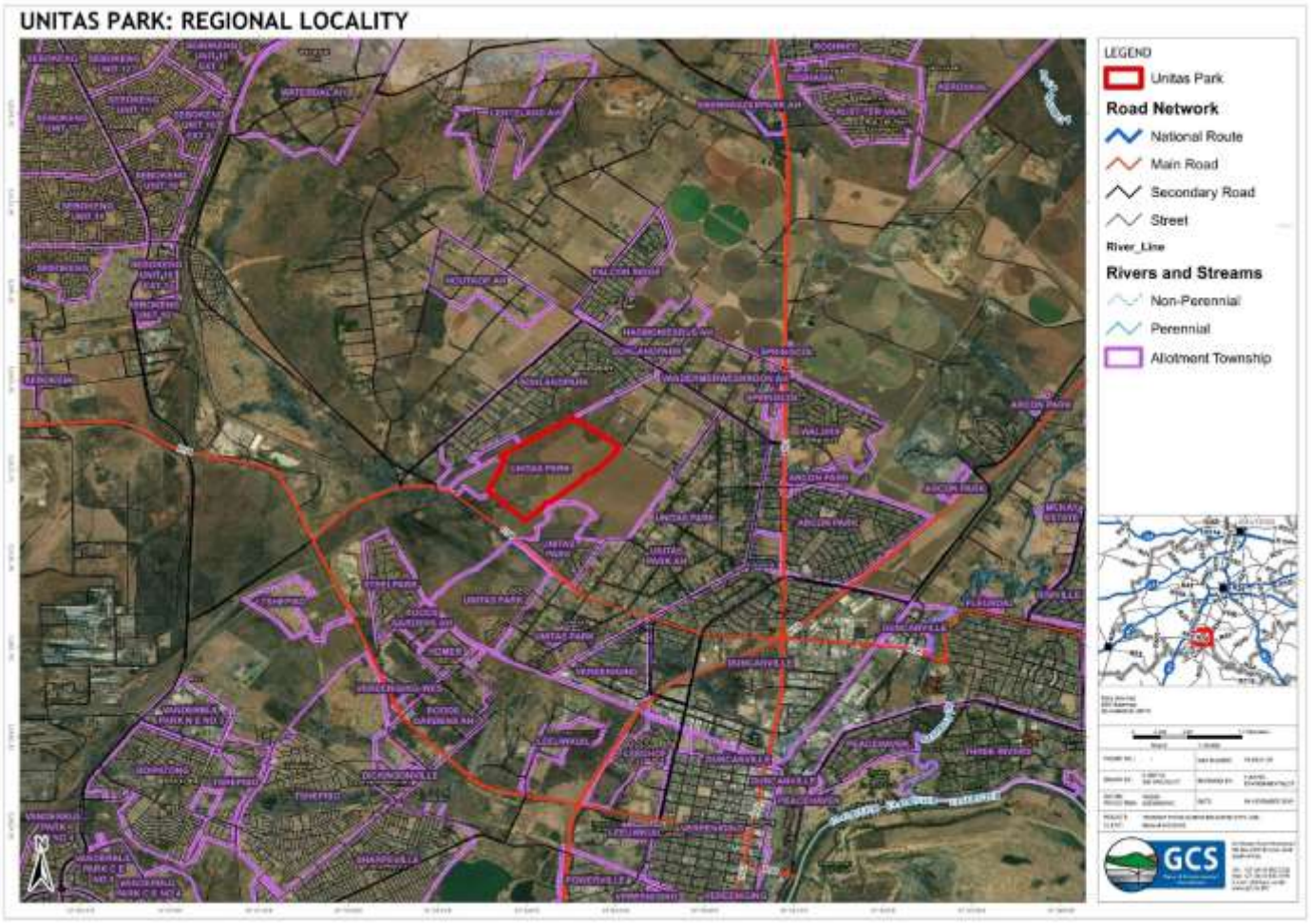
Jnr EAP on site

NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION APPLICATION PROCESS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) FOR UNITAS PARK, GAUTENG PROVINCE.

GCS Ref No: 19.0921
GDARD Ref No: 002/20-21/E0042

Background and Project Description

The Department of Human Settlements (DHS) aims at fast tracking the release of serviced stands form State owned land to qualifying beneficiaries through the Gauteng Rapid Land Release Programme (GRLRP). As part of this programme, the Unitas Park – Extension 16 Development has been identified for implementation. The proposed project entails the phased establishment of a mixed use residential development inclusive of the following land uses: low, medium and high density residential; student village; mixed use; innovation hub; social/educational; public open space and sports facility.
The proposed project site is located on Portion 222 of the farm Houtkop 549 IQ within Unitas Park, in-between the towns of Vereeniging, Sebokeng and Vanderbijlpark, falling within the Emfuleni Local Municipality and Sedibeng District Municipality. The site is approximately 149 hectares in extent and falls within the 2010 urban edge. The site is zoned as “agriculture”.



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 calendar days (i.e. the deadline for comments is **15 February 2021**) from the date of commencement (**15 January 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), the NWA and the National Heritage Resources Act (Act No. 25 of 1999) (NHRA):

- GN R327, 07 April 2017, Listing Notice 1 – Activities 12, 25, 27, and 28
- GN R325, 07 April 2017, Listing Notice 2 – Activities 15 and 25
- GN R324, 07 April 2017, Listing Notice 3 – Activities 4, 12, 14 and 15
- Section 21 of the NWA (Water Use License Application)
- Section 38 of the NHRA (Heritage Permitting)

The Draft Scoping Report and Supporting Documentation can be accessed at the following link from 15 January 2021:

- 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 February 2021**, as follows:
Lehlogonolo Mashego
Tel: 011 803 5726
Fax: 011 803 5232
E-mail: lehlo@gcs-sa.biz
Mail: P O Box 2597, Rivonia, 2128

APPENDIX C6

Comments & Response Report

Environmental Authorisation Application for the Proposed Mixed Use Development for Unitas Park – Extension 16, Gauteng Province

Comments and Responses Report (CRR)

Version 0.1

16 February 2021

This Comments and Responses Report (CRR) **Version 0.1** provides a summary of the comments, questions and issues raised by stakeholders since the announcement of the application on 15 February 2021 for a Regulatory Process for an Environmental Authorisation for the proposed Unitas Park – Extension 16 Township Development in Gauteng Province.

- Version 1 of the CRR is appended to the Final Scoping Report and records issues and concerns raised during the announcement and consultative period of the project from 15 January 2021 to 15 February 2021.

Table of Contents

List of Appendices

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
Comments received during the review period of the Draft Scoping Report (15 January to 15 February 2021)						
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.	Ms	Elize Aucamp	Emfuleni Local Municipality – Ward Councillor	18 Jan 2021	Verbal, during site notice placement.	Noted. All service and maintenance issues will be addressed during the assessment process. It can be noted that tthe proposed development requires 20MVA electricity supply. Of this 5MVA is already available at the Eskom Sonland Substation – Emfuleni installed this to supply the old Unitas Park project. 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. Furthermore, 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. The Total Peak Water Demand for the proposed development=283,227 l/s or 25ML/day. The Emfuleni Local Municipality is responsible for the provision and maintenance of roads and stormwater infrastructure in its area of jurisdiction.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
						The Proposed development Total Peak Sewer discharge=203,891 l/s or 18ML/day.
It is not recommended that there be provision of students given the proximity of institutions from the site.	Ms	Elize Aucamp	Emfuleni Local Municipality – Ward Councillor	18 Jan 2021	Verbal, during site notice placement.	This comment has been noted and further investigation regarding the feasibility of the proposed student housing.
Where I should apply in order to obtain a stand in this portion of land (222 Houtkop 549 IQ, Unitas Park). Cause now we got many scams where people are robbed and occupy fraudulent land, please I need your help. May the lord be with you, thanks.	Mr	Abel Ignatius Mbele	Interested and affected party (I&AP)	18 Jan 2021	Email correspondence	Your query has been noted and brought to the attention of the applicant for further attention.
Forward me the map for Unitas Park Extension 16 Development. And process on land application	Mr	Lucas Matshela Sehanka	Gauteng Department of Sport, Arts, Culture and Recreation (GDSACR)	14 Jan 2021	Email correspondence	The requested project maps were shared. Please note that the Land Application for the proposed Township Establishment procedure for Emfuleni Local Municipality is done in terms of Section 44 of the Emfuleni Local Municipality Spatial Planning and Land Use Management By-Law, 2016.
All development applications are processed via our online portal, the South African Heritage Resources Information System (SAHRIS) found at the following link: http://sahra.org.za/sahris/. We do not accept emailed, posted, hardcopy, faxed, website links or DropBox links as official submissions. Please create an application on SAHRIS and upload all documents pertaining to the Environmental Authorisation Amendment Application Process. As per section 38(8) of the National Heritage Resources Act, Act 25 of 1999	Ms	Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	18 Jan 2021	Email correspondence	Thank you for the email below. Please note that a case has been opened, we have not yet received the case ID as that would've been shared for ease of reference.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
(NHRA), an assessment of heritage resources must form part of the process and the assessment must comply with section 38(3) of the NHRA. Once all documents including all appendices are uploaded to the case application, please ensure that the status of the case is changed from DRAFT to SUBMITTED. Please ensure that all documents produced as part of the EA Amendment process are submitted as part of the application.						
Sonlandpark, Falcon Ridge, Waldrift, Duncanville and surroundings areas are already struggling with power and water infrastructure. A project like this will place extra strain on an already weak infrastructure and should not be done.	Mr	Herman van Staden	Homeowner	21 Jan 2021	Email correspondence with Comments and Registration form as deliverable	The proposed development requires 20MVA electricity supply. Of this 5MVA is already available at the Eskom Sonland substation – Emfuleni installed this to supply the old Unitas Park project. 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. The proposed development will discharge into the Leeuwkuil wastewater treatment works which according to Emfuleni still need to be upgraded and rehabilitated in order to accommodate future developments like the proposed Unitas Park Ext 16. There is a proposal of an on-site above ground WWTW for the proposed development The treatment plant will comprise of 2x10 MLPD Aboveground Steel Tank Wastewater Treatment Facility.
Sonlandpark, Falcon Ridge, Waldrift, Duncanville and surroundings areas are already struggling with power and water infrastructure. A project like this will place extra strain on an already weak infrastructure and should not be done.	Ms	Alta Oosthuizen	Homeowner	21 Jan 2021	Email correspondence with Comments and Registration form as deliverable	
Sonlandpark, Falcon Ridge, Waldrift, Duncanville and surroundings areas are already struggling with power and water infrastructure. A project like this will place extra strain on an already weak infrastructure and should not be done.	Mr	Christo Oosthuizen	Homeowner	22 Jan 2021	Email correspondence with Comments and Registration form as deliverable	
Sonlandpark, Falcon Ridge, Waldrift, Duncanville and surroundings areas are already struggling with power and water infrastructure. A project like this will place extra strain on an already weak infrastructure and should not be done.	Mr	Duane Bird	Tenant	22 Jan 2021	Email correspondence with Comments and Registration form as deliverable	
Sonlandpark, Falcon Ridge, Waldrift, Duncanville and surroundings areas are already struggling with power and water infrastructure. A project like this	Ms	Monica Bird	Tenant	22 Jan 2021	Email correspondence with Comments	

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
will place extra strain on an already weak infrastructure and should not be done.					and Registration form as deliverable	Unitas Park is supplied from the Helenasrust Rand Water connection via Rand Water's Langerand reservoir which the proposed Unitas Park Ext 16 will also be supplied from. The Rand Water connection is sufficient, but the network pipes must be augmented. A water line connects to Rand Water at Langerand and feeds a new reservoir north-west of Unitas Park extension. Unitas Park township and densification areas can connect to the existing pipelines and no additional bulk water infrastructure was required in the short to medium term. Currently, there is no spare capacity at the Langerand but the introduction of a new supply zone with reservoir TWL 1570 m will remove all pressure on the system. The proposed 2km-K55 will have two access points that have been provided for in the erf subdivision. This road, or a portion of it, must first be constructed before access to the site can be obtained.
All development applications are processed via our online portal, the South African Heritage Resources Information System (SAHRIS) found at the following link: http://sahra.org.za/sahris/. We do not accept emailed, posted, hardcopy, faxed, website links or DropBox links as official submissions. Please create an application on SAHRIS and upload all documents pertaining to the Environmental Authorisation Amendment Application Process. As per section 38(8) of the	Mr	Andrew Salomon	South African Heritage Resources Agency (SAHRA)	05 Feb 2021	Email correspondence	Following the email below, please note that all project documents to the current phase have been uploaded onto the system. We will further await comments accordingly.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
National Heritage Resources Act, Act 25 of 1999 (NHRA), an assessment of heritage resources must form part of the process and the assessment must comply with section 38(3) of the NHRA. Once all documents including all appendices are uploaded to the case application, please ensure that the status of the case is changed from DRAFT to SUBMITTED. Please ensure that all documents produced as part of the EA process are submitted as part of the application, and are submitted to SAHRA at the beginning of the Public Review periods. Once all these documents have been uploaded, I will be able to issue an informed comment as per section 38(4) and 38(8) of the NHRA.						
It is clearly stated that the township layout for 2680 erven was approved but must be withdrawn and a new application must be submitted. I Therefore see no reason for any comments on the current development and request that the new application be made available to us for further comments.	Cllr	Elize Aucamp	Ward Councillor	17 Feb 2021	Email correspondence	Correct, a township application on the said property with a township layout for 2680 erven was approved previously, however it will be withdrawn as it has lapsed and as indicated in the Draft Scoping Report (DSR), did not accommodate different residential densities and it did not comply with the latest environmental and geotechnical requirements for the site. Comments therefore are not required for the previously approved application, but for the new application as is contained in the Urban Design Framework and as envisaged within the DSR.
I was instructed by the community to ask that a public participation meeting be held, not all the residents has access to emails, data etc and therefore the process is not fair.	Cllr	Elize Aucamp	Ward Councillor	17 Feb 2021	Email correspondence	The request for a public participation meeting has been noted and further public engagement during the environmental impact assessment phase of the project will take this request into consideration.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
The Scoping Report must comply with Regulation 21 (3) of the Environmental Impact Regulations, 2014 as amended, and must contain all information set out in Appendix 2 of the above - mentioned Regulations.	Mr	Steven Mukhola	Gauteng Department of Agriculture and Rural Development (GDARD) – Director: Impact Management	23 Feb 2021	Email correspondence	The Scoping Report has been compiled in terms of Appendix 2 of the EIA Regulations, 2014 as amended.
A description of all the activities to be undertaken must be listed, specified and must be inclusive of all associated structures and infrastructures such as access routes and bulk services connection.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	The details of all proposed activities to be undertaken have been included in Section 1.6 of the Scoping Report.
The development footprint size of the proposed activity must be clearly defined in relation to the site development and layout plan.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	Noted. Detailed maps will be provided to indicate the development footprint vs the site development and layout plan.
The proposed development must correspond with activities applied for under the Environmental Impact Assessment (EIA) Regulations, 2014 as amended.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	All activities applied for under the EIA Regulations, 2014 as amended are in line with the proposed developmental works and objectives.
The draft scoping report indicates the presence of unchanneled valley bottom within the study area.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	That is correct, further investigation is underway.
A detailed site development and layout plan overlain by a composite sensitivity map must be attached in scoping report. This plan must be an A3 size and take into consideration all activities listed inclusive of associated infrastructure such as access routes and bulk services connection. The plan must also reflect buffer zones as indicated on page 34 of the Ecological Impact Assessment Report prepared by Gareth Preen dated 24 March 2020.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	The detailed site development and layout plan has been appended in the Scoping Report.

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
The proposed site is affected by a dolomite in terms of the Department recommend that a dolomite stability assessment be conducted and be included in the draft EIAR.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	The dolomite stability assessment has been initiated and will further form part of the submission of the DEIAR.
Comparative assessment of all alternatives taking into consideration, the sensitive areas on the site, surrounding land uses, nature and scale of activity components must be done, and outcomes reported.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	Noted, thank you. A comparative assessment will form part of the assessment process.
A credible method of impact assessment, impact identification, rating and mitigation must be used to determine the impact of the proposed development on the biophysical environment on the site.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	Noted, thank you. A credible methods of impact assessment will be used during the EIA phase
1.1 A detailed master storm water management plan (SWMP) must comply with the Sustainable Urban Drainage Systems (SUDS) Principles and consider source, local and regional controls.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	Noted, thank you. The Master SWMP will comply with the SUDS principles and will further be included in the EIA phase.
1.2 A site (project) specific Environmental Management Programme (EMPr) which is practical and enforceable is attached the draft scoping report. However, the EMPr must be in line with the content requirement as stipulated in Appendix 4 of the Environmental Impact Assessment (EIA) Regulations, 2014, and must incorporate management and mitigation measures to impacts identified during the assessment and in the specialist studies.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	The compilation of the site-specific EMP is based on Appendix 4 of the EIA Regulations, 2014 as amended.
1.3 The Public Participation process (PPP) must be carried out in accordance with the minimum requirements of Chapter 6, Public Participation, GN R326, of the EIA Regulations 2014 as amended.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	The nature of the conducted PPP is in line with Chapter 6 of the EIA Regulations, 2014 as amended. It is to be further noted that given the respectively Covid-19 guidelines, alternatives were and will further be

ISSUE OR CONCERN	CONTRIBUTOR			DATE OF CONTRIBUTION	MEANS OF CONTRIBUTION	RESPONSE
						applied to ensure that all protocols are followed.
1.4 All the specialist studies included in the Draft Scoping Report must be included in the Draft EIAR not in the Final Scoping Report.	Mr	Steven Mukhola	GDARD – Director: Impact Management	23 Feb 2021	Email correspondence	Noted, thank you.

APPENDIX A

Comment and Registration Forms

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

I&AP Comment and Registration Form
GCS Ref No: 19.0921

Name:	Monica	Surname:	Bird
Organisation / interest:	Tenant		
Postal / Residential address	38 Wolff Kruger Ave		
	Area: Sonlandpark	Code:	1929
Contact details	Tel: ( )		
	Fax: ( )		
	Mobile: (072) 9723227		
	Email: monicambird90@gmail.com		

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	X
No, I am not interested in participating and do not wish to receive further information	

Preferred method of communication	Email	X	Fax		Post	
Date commented	22/01/2021					

Please indicate any issues, comments and concerns with regards to the proposed project

Sonlandpark, Falcon Ridge, Waldrift, Duncanville & Surrounding areas are already Struggling with power and water infrastructure, A Project like this will place extra Strain on an already weak infrastructure. And therefor Should not be done.

Please indicate in which aspects you would require more information

All aspects

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

I&AP Comment and Registration Form
GCS Ref No: 19.0921

Name:	HERMAN	Surname:	VAN STADEN
Organisation / interest:	HOME OWNER		
Postal / Residential address	40 WOLFF KRUGER AVE		
	Area: SONLANDPARK	Code:	1929
Contact details	Tel: (079) 898 3900		
	Fax: ( )		
	Mobile: (079) 898 3900		
	Email: HERMANVANSTADEN@GMAIL.COM		

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						X
No, I am not interested in participating and do not wish to receive further information						
Preferred method of communication	Email	X	Fax		Post	
Date commented	21 / 01 / 2021					

Please indicate any issues, comments and concerns with regards to the proposed project

SONLANDPARK, FALCON RIDGE, WALORIFT, DUNCANVILLE AND SURROUNDING AREAS ARE ALREADY STRUGGLING WITH POWER AND WATER INFRASTUCTURE. A PROJECT LIKE THIS WILL PLACE EXRA STRAIN ON AN ALREADY WEAK INFRASTRUCTURE. AND SHOULD NOT BE DONE.

Please indicate in which aspects you would require more information

ALL

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

I&AP Comment and Registration Form
GCS Ref No: 19.0921

Name:	ALTA	Surname:	OOSTHUIZEN
Organisation / interest:	HOME OWNER		
Postal / Residential address	WOLF KRUGER LAAN 38		
Area:	SONLANDPARK	Code:	1929
Contact details	Tel:	(076) 677 8178	
	Fax:	( )	
	Mobile:	(076) 677 8178	
	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	X
No, I am not interested in participating and do not wish to receive further information	

Preferred method of communication	Email		Fax		Post	
Date commented	(21/01/2021)					

Please indicate any issues, comments and concerns with regards to the proposed project

SONLANDPARK, FALCON RIDGE, WALDRIFT, DUNCANVILLE AND SURROUNDING AREAS ARE ALREADY STRUGGLING WITH POWER AND WATER INFRASTRUCTURE. A PROJECT LIKE THIS WILL PLACE EXTRA STRAIN ON AN ALREADY WEAK INFRASTRUCTURE AND SHOULD NOT BE DONE.

Please indicate in which aspects you would require more information

ALL ASPECTS

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

I&AP Comment and Registration Form
GCS Ref No: 19.0921

Name:	Duane	Surname:	Bird
Organisation / interest:	Tenant		
Postal / Residential address	38 Wolff Kruger Ave.		
	Area: Sonland Park	Code:	1929
Contact details	Tel: ( )		
	Fax: ( )		
	Mobile: (076) 8645831		
	Email: duaneanthonybird@gmail.com		

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	X
No, I am not interested in participating and do not wish to receive further information	

Preferred method of communication	Email	X	Fax		Post	
Date commented	22/01/2021					

Please indicate any issues, comments and concerns with regards to the proposed project

Sonland Park, Falcon Ridge, Waldrift, Duncanville and Surrandng areas are already Strugging with Power and Water infrastructure. A project like this will place extra stram on an already weak infrastructure and should not be done.

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

Phumaf Holdings (Pty) Ltd
Unitas Park, Gauteng
Background Information Document

I&AP Comment and Registration Form
GCS Ref No: 19.0921

Name:	CHRISTO	Surname:	OOSTHUIZEN
Organisation / interest:	OWNER		
Postal / Residential address	WOLF KRUGER LAAN 38		
	Area:	Code:	1929
Contact details	Tel: ( )		
	Fax: ( )		
	Mobile: (076) 235 5958		
	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	22/01/2021					

Please indicate any issues, comments and concerns with regards to the proposed project

SONLANDPARK, FALCONRIDGE, WALDRIFT, DUNCANVILLE, SURROUNDING AREAS ARE ALREADY STRUGGLING WITH POWER AND WATER INFRASTRUCTURE. A PROJECT LIKE THIS WILL PLACE EXTRA STRAIN ON AN ALREADY WEAK INFRASTRUCTURE AND THEREFOR SHOULD NOT BE DONE

Please indicate in which aspects you would require more information

ALL ASPECTS

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: lehlo@gcs-sa.biz
Post: PO Box 2597, Rivonia, 2128

APPENDIX B

Email Correspondence

From: abel ignatius mbele
Sent: Mon, 18 Jan 2021 07:55:14 +0200
To: Lehlo Mashego
Subject: inquiry

Good morning Hloni I hope you are doing well under this pandemic period. My name is Abel Mbele and I am hereby requesting to you if you can assist me with the information regarding to where I should apply in order to obtain a stand in this portion of land (222 Houtkop 549 IQ, Unitas Park). Cause now we got many scams where people are robbed and occupy fraudulent land, please I need you help. May the lord be with you, thanks.

From: Lehlo Mashego
Sent: Tue, 19 Jan 2021 11:47:59 +0000
To: Nokukhanya Khumalo
Cc: Gerda Bothma
Subject: RE: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Good Day Nokukhanya

Thank you for the email below.

Please note that a case has been opened, we have not yet received the case ID as that would've been shared for ease of reference.

Kind regards
Lehlogonolo

From: Nokukhanya Khumalo <nkhumalo@sahra.org.za>
Sent: Monday, 18 January 2021 9:14 AM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Cc: Gerda Bothma <gerdab@gcs-sa.biz>
Subject: RE: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Good morning,

Please note that all development applications are processed via our online portal, the South African Heritage Resources Information System (SAHRIS) found at the following link: http://sahra.org.za/sahris/. We do not accept emailed, posted, hardcopy, faxed, website links or DropBox links as official submissions.

Please create an application on SAHRIS and upload all documents pertaining to the Environmental Authorisation Amendment Application Process. As per section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA), an assessment of heritage resources must form part of the process and the assessment must comply with section 38(3) of the NHRA.

Once all documents including all appendices are uploaded to the case application, please ensure that the status of the case is changed from DRAFT to SUBMITTED. Please ensure that all documents produced as part of the EA Amendment process are submitted as part of the application.

Kind Regards,
Nokukhanya Khumalo

From: Lehlo Mashego <lehlo@gcs-sa.biz>
Sent: Friday, 15 January 2021 19:22
To: Lehlo Mashego <lehlo@gcs-sa.biz>

Cc: Gerda Bothma <gerdab@gcs-sa.biz>
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Dear stakeholders

I have spoken to a few of you personally to let you know of the Scoping and Environmental Impact Assessment (S&EIA) underway for the proposed Township Development in Unitas Park – Extension 16, Emfuleni Local Municipality.

Please find attached a Background Information Document (BID) with more information.

As mentioned to you, the Draft Scoping Report (DSR) 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 Sedibeng Ster (13 January - 19 January 2021). Your participation in this project will be appreciated.

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

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

Lehlo Mashego
Environmental Liaison Officer

GCS Water & Environmental Consultants

Tel +27 (0) 11 803 5726
Fax +27 (0) 11 803 5745
Cell

Web Address www.gcs-sa.biz
63 Wessel Road, Rivonia,
Johannesburg, South Africa

Established in 1987

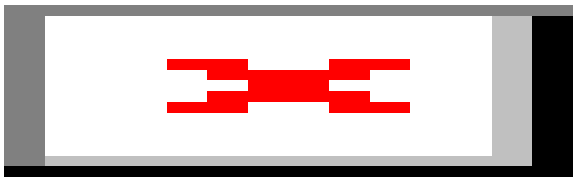
Consider the environment before printing this email.

Nokukhanya Khumalo
Heritage Officer: Archaeology, Palaeontology & Meteorites Unit

South African Heritage Resources Agency
- A nation united through heritage -

T: +27 21 462 4502/ 8654| C:| F:+27 21 4624509
E: NKhumalo@sahra.org.za | 111 Harrington Street | Cape Town |

www.sahra.org.za



From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 08:47:54 +0000
To: hermanvanstaden@gmail.com
Subject: RE: I&AP Comment and Registration

Good day Alta

Apologies for the delayed response.

Do note that your registration form has been received and thank you for your contribution.

It is to be noted that all received comments will be incorporated and addressed into the Comments and Response Report (CRR). The first version of the CRR will be made available along with the distribution of the Final Scoping Report.

Additionally, the draft Scoping Report may still be accessed on the link provided below.

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

Should you wish to engage further, please do not hesitate to contact us accordingly

Kind regards
Lehlogonolo

From: hermanvanstaden@gmail.com <hermanvanstaden@gmail.com>
Sent: Sunday, 24 January 2021 8:13 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: I&AP Comment and Registration

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Alta Oosthuizen

From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 08:47:29 +0000
To: hermanvanstaden@gmail.com
Subject: RE: I&AP Comment and Registration

Good day Duane

Apologies for the delayed response.

Do note that your registration form has been received and thank you for your contribution.

It is to be noted that all received comments will be incorporated and addressed into the Comments and Response Report (CRR). The first version of the CRR will be made available along with the distribution of the Final Scoping Report.

Additionally, the draft Scoping Report may still be accessed on the link provided below.

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

Should you wish to engage further, please do not hesitate to contact us accordingly

Kind regards
Lehlogonolo

From: hermanvanstaden@gmail.com <hermanvanstaden@gmail.com>
Sent: Sunday, 24 January 2021 8:14 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: I&AP Comment and Registration

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Duane Bird

From: Lehlo Mashego
Sent: Fri, 22 Jan 2021 08:36:49 +0000
To: Herman van Staden
Cc: Gerda Bothma
Subject: RE: I&AP Comment and Registration form

Good morning Herman

Please note that this acts as a formal acknowledgement of the IAP Comment and Registration Form received.

Should you need any additional information, please do not hesitate to contact us.

Kind regards
Lehlogonolo Mashego

From: Herman van Staden <hermanvanstaden@gmail.com>
Sent: Thursday, 21 January 2021 12:03 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: I&AP Comment and Registration form

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Herman van Staden

From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 11:10:06 +0000
To: abel ignatius mbele
Subject: RE: inquiry
Attachments: 19.0921 - Unitas Park_BID_V1.pdf

Good day Abel

Apologies for the delayed response.

Following the email below, do that we are currently running the environmental authorisation process and are encouraged to provide your input and comment thereof. Do note that a formal response to what you have raised will further be addressed and will be incorporated into the first version of the Comments and Response Report which will be made available with the distribution of the Final Scoping Report.

Do note that the draft Scoping Report may still be accessed on the link provided below.

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

Should you wish to engage further, please do not hesitate to contact us accordingly.

Kind regards
Lehlogonolo

From: abel ignatius mbele <abelignatiusmbele@gmail.com>
Sent: Monday, 18 January 2021 7:55 AM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: inquiry

Good morning Hloni I hope you are doing well under this pandemic period. My name is Abel Mbele and I am hereby requesting to you if you can assist me with the information regarding to where I should apply in order to obtain a stand in this portion of land (222 Houtkop 549 IQ, Unitas Park). Cause now we got many scams where people are robbed and occupy fraudulent land, please I need you help. May the lord be with you, thanks.

From: Lehlo Mashego
Sent: Fri, 15 Jan 2021 16:15:36 +0000
To: Sehanka, Lucas (GPSPORTS)
Cc: Gerda Bothma
Subject: RE: Map of Unitas Park Extension 16 Development
Attachments: 19_0921_09_UnitasPark_Regional_Locality_CB_20191104.pdf, 19_0921_23_Unitas_Park_SiteLocality_FarmPortionOnly_CB_20191107.pdf

Good day Mr Lucas

Following the previous engagements, kindly see attached as requested.

Do note that the Draft Scoping Report (DSR) is available and may be accessed on the link provided below.

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

In addition, please note that you will be included onto the stakeholder database and ask that you share with us or forward the project information to any interested and affected party/ies (I&APs).

Kind regards
Lehlogonolo Mashego

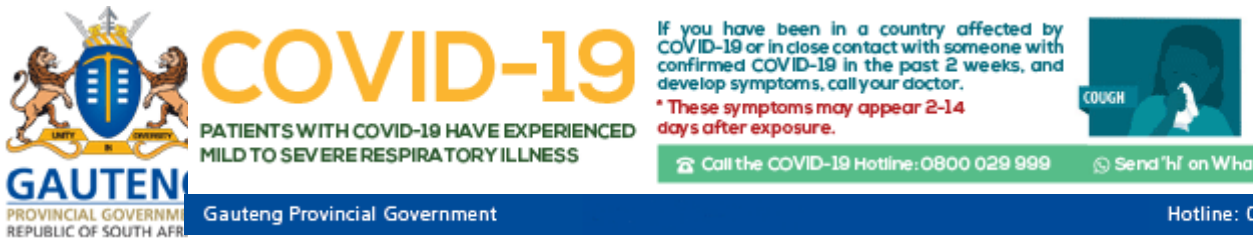
From: Sehanka, Lucas (GPSPORTS) <Lucas.Sehanka@gauteng.gov.za>
Sent: Thursday, 14 January 2021 3:07 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: Map of Unitas Park Extension 16 Development

Good day Lehlogonolo

As per our telephonic discussions may you please forward me the map for Unitas Park Extension 16 Development. And process on land application

Kind Regards

Lucas Matshela Sehanka
Acting ASD Sport & Recreation: South Corridor
Gauteng Department of Sport, Arts, Culture & Recreation
Tel: 016 430 2160 **| Cell:** 082 767 4165
Email: Lucas.Sehanka@gauteng.gov.za **| Web:** www.gauteng.gov.za



From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 08:45:36 +0000
To: hermanvanstaden@gmail.com
Subject: RE: Unitas Park_I&AP Comment and Registration

Good day Christo

Apologies for the delayed response.

Do note that your registration form has been received and thank you for your contribution.

It is to be noted that all received comments will be incorporated and addressed into the Comments and Response Report (CRR). The first version of the CRR will be made available along with the distribution of the Final Scoping Report.

Additionally, the draft Scoping Report may still be accessed on the link provided below.

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

Should you wish to engage further, please do not hesitate to contact us accordingly

Kind regards
Lehlogonolo

From: hermanvanstaden@gmail.com <hermanvanstaden@gmail.com>
Sent: Sunday, 24 January 2021 8:15 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: I&AP Comment and Registration

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Christo Oosthuizen

From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 08:46:31 +0000
To: hermanvanstaden@gmail.com
Subject: RE: Unitas Park_I&AP Comment and Registration

Good day Monica

Apologies for the delayed response.

Do note that your registration form has been received and thank you for your contribution.

It is to be noted that all received comments will be incorporated and addressed into the Comments and Response Report (CRR). The first version of the CRR will be made available along with the distribution of the Final Scoping Report.

Additionally, the draft Scoping Report may still be accessed on the link provided below.

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

Should you wish to engage further, please do not hesitate to contact us accordingly

Kind regards
Lehlogonolo

From: hermanvanstaden@gmail.com <hermanvanstaden@gmail.com>
Sent: Sunday, 24 January 2021 8:16 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: I&AP Comment and Registration

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Monica Bird

From: Lehlo Mashego
Sent: Thu, 4 Feb 2021 11:09:39 +0000
To: 'lekgotlam@emfuleni.gov.za'
Cc: 'lekgotlamotapane18@gmail.com';'NomvulaT@emfuleni.gov.za'
Subject: FW: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021
Attachments: 19.0921 - Unitas Park_BID_V1.pdf
Importance: High

Good day Mr Lekgotla

Following the email below regarding the available draft Scoping Report for Unitas Park Township Development, may you kindly assist with the below detailed aspect/s.

We are currently running the consultation period and as such have identified the municipality as a key stakeholder, given this we would appreciate comment from the municipality with comments/input from the Environmental, Planning and Engineering departments respectively.

Kindly advise on the need for any additional information regarding the proposed project.

Kind regards
Lehlogonolo
(076 837 5240)

From: Lehlo Mashego
Sent: Friday, 15 January 2021 7:22 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Cc: Gerda Bothma <gerdab@gcs-sa.biz>
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Dear stakeholders

I have spoken to a few of you personally to let you know of the Scoping and Environmental Impact Assessment (S&EIA) underway for the proposed Township Development in Unitas Park – Extension 16, Emfuleni Local Municipality.

Please find attached a Background Information Document (BID) with more information.

As mentioned to you, the Draft Scoping Report (DSR) 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 Sedibeng Ster (13 January - 19 January 2021). Your participation in this project will be appreciated.

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

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

From: Lehlo Mashego
Sent: Thu, 21 Jan 2021 12:41:10 +0000
To: 'Thato Letsie'
Cc: Thato Letsie;Gerda Bothma
Subject: FW: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021
Attachments: 19.0921 - Unitas Park_BID_V1.pdf

Good day Thato

As per our telephonic discussion, please see the email below for your attention.

Kind regards
Lehlogonolo

From: Lehlo Mashego
Sent: Friday, 15 January 2021 7:57 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Dear stakeholders

I have spoken to a few of you personally to let you know of the Scoping and Environmental Impact Assessment (S&EIA) underway for the proposed Township Development in Unitas Park – Extension 16, Emfuleni Local Municipality.

Please find attached a Background Information Document (BID) with more information.

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

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

From: Lehlo Mashego
Sent: Fri, 5 Feb 2021 07:21:38 +0000
To: 'zamanim@emfuleni.gov.za'
Cc: Gerda Bothma
Subject: FW: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021
Attachments: 19.0921 - Unitas Park_BID_V1.pdf
Importance: High

Good morning Zamani

Following our telephonic discussion regarding the available draft Scoping Report (DSR) for Unitas Park Township Development, may you kindly find attached is the background information document (BID).

We are currently in the consultation period and as such have identified the municipality as a key stakeholder, given this we would further appreciate comment from the municipality with comments/input from the Environmental, Planning and Engineering departments respectively. The available DSR may be accessed in the link below.

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

Please do not hesitate to contact us for any additional information.

Kind regards
Lehlogonolo
(076 837 5240)

From: Lehlo Mashego
Sent: Friday, 15 January 2021 7:22 PM
To: Lehlo Mashego <lehlo@gcs-sa.biz>
Cc: Gerda Bothma <gerdab@gcs-sa.biz>
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021

Dear stakeholders

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

From: Thato Letsie
Sent: Sun, 17 Jan 2021 19:30:58 +0200
To: Lehlo Mashego
Cc: Thato Letsie
Subject: GCS Ref: 19.0921 STAKEHOLDER REGISTRATION
Attachments: KASI CHOICE PRESENTATION.pptx, SEDIBENG SUPPORT LETTER.PDF, Disclosure_C2013005951.pdf, GCS WATER & ENVIRONMENTAL CONSULTANTS.pdf, KASI CHOICE INVESTMENT PROPOSAL 2020.pdf, KASI CHOICE - PROFILE - 2020.pdf

Greetings Ntate Lehlogonolo Mashego

Thankyou for the notice,

Please view the attached for your attention.
Presentation password: 2013

Best Regards
LETSIE THATO IBRAHIM (MR)
EXECUTIVE BOARD TRUSTEE
CORPORATE SUPPORT SERVICES
BUSINESS EXECUTIVE SUITS
INVESTMENT FUND MANAGER
+27 65 948 2961/+27 16 428 4699
+27 16 422 6054

From: Lehlo Mashego
Sent: Fri, 15 Jan 2021 17:57:26 +0000
To: Lehlo Mashego
Bcc: 'paul@bkserv.co.za';'maretha.lombard@vaaldriehoek.com'
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021
Attachments: 19.0921 - Unitas Park_BID_V1.pdf

Dear stakeholders

I have spoken to a few of you personally to let you know of the Scoping and Environmental Impact Assessment (S&EIA) underway for the proposed Township Development in Unitas Park – Extension 16, Emfuleni Local Municipality.

Please find attached a Background Information Document (BID) with more information.

As mentioned to you, the Draft Scoping Report (DSR) is now available and may be accessed on the link provided below.

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

From: Lehlo Mashego
Sent: Fri, 15 Jan 2021 17:22:15 +0000
To: Lehlo Mashego
Cc: Gerda Bothma
Bcc: Daniel.Molokomme@gauteng.gov.za;Masina Litsoane;eiaadmin@environment.gov.za;mudauk@dws.gov.za;MOTAUNG, DAN (GDARD);Boniswa.belot@gauteng.gov.za;SEHONA, MALESELA (GDARD);khanyiles@sedibeng.gov.za;maisakam@sedibeng.gov.za;mapulengm@sedibeng.gov.za;siphon@sedibeng.gov.za;archiem@sedibeng.gov.za;motshedisim@sedibeng.gov.za;bettyp@sedibeng.gov.za;refilwem@sedibeng.gov.za;mirriamm@sedibeng.gov.za;khulum@sedibeng.gov.za;basseym@sedibeng.gov.za;sellop@sedibeng.gov.za;katep@sedibeng.gov.za;cllrward45@gmail.com;mmatshepom@emfuleni.gov.za;MM@emfuleni.gov.za;leseane28@gmail.com;AmandaO@emfuleni.gov.za;moratuwa@emfuleni.gov.za;hpelser@emfuleni.gov.za;antonm@emfuleni.gov.za;NomvulaT@emfuleni.gov.za;nkhumalo@sahra.org.za;nhiggitt@sahra.org.za;lmofutsanyana@sahra.org.za;liesbeth@emfuleni.gov.za;lekgotlame@emfuleni.gov.za
Subject: GRLRP: Unitas Park - Draft Scoping Report (DSR)_from 15 Jan 2021
Attachments: 19.0921 - Unitas Park_BID_V1.pdf

Dear stakeholders

I have spoken to a few of you personally to let you know of the Scoping and Environmental Impact Assessment (S&EIA) underway for the proposed Township Development in Unitas Park – Extension 16, Emfuleni Local Municipality.

Please find attached a Background Information Document (BID) with more information.

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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.

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

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

We are looking forward to your participation.

Kind regards
Lehlogonolo Mashego

From: hermanvanstaden@gmail.com
Sent: Sun, 24 Jan 2021 20:13:09 +0200
To: Lehlo Mashego
Subject: I&AP Comment and Registration
Attachments: IMG_0002.pdf

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Alta Oosthuizen

From: hermanvanstaden@gmail.com
Sent: Sun, 24 Jan 2021 20:14:31 +0200
To: Lehlo Mashego
Subject: I&AP Comment and Registration
Attachments: IMG_0004.pdf

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Christo Oosthuizen

From: hermanvanstaden@gmail.com
Sent: Sun, 24 Jan 2021 20:13:49 +0200
To: Lehlo Mashego
Subject: I&AP Comment and Registration
Attachments: IMG_0003.pdf

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Duane Bird

From: hermanvanstaden@gmail.com
Sent: Sun, 24 Jan 2021 20:15:50 +0200
To: Lehlo Mashego
Subject: I&AP Comment and Registration
Attachments: IMG_0005.pdf

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Monica Bird

From: Herman van Staden
Sent: Thu, 21 Jan 2021 12:02:47 +0200
To: Lehlo Mashego
Subject: I&AP Comment and Registration form
Attachments: it.support@seartec.co.za_20210121_120226.pdf

Dear Lehlogonolo

Please find attached my I&AP Comment and Registration Form.

Thank you in advance

Herman van Staden

APPENDIX C

Other Records

GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Reference: **Gaut 002//20-21/E0042**
Enquiries: Xoliswa Bobelo
Telephone: 011 240 3391
E-mail: Xoliswa.Bobelo@gauteng.gov.za

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

By Email: gerdab@gcs-sa.biz

Tel No.: 011 803 5726

Attention: Ms Gerda Bothma

COMMENTS ON THE DRAFT SCOPING REPORT FOR THE PROPOSED DEVELOPMENT OF UNITAS PARK EXTENSION 16 ON PORTION 225 OF THE FARM HOUTKOP 594 IQ, EMFULENI LOCAL MUNICIPALITY

The above matter has reference.

This letter serves to inform you that the Department of Agriculture and Rural Development ("the Department") has reviewed the above-mentioned application report.

The Department will like to comment as follows:

- The Scoping Report must comply with Regulation 21 (3) of the Environmental Impact Regulations, 2014 as amended, and must contain all information set out in Appendix 2 of the above-mentioned Regulations.
- A description of all the activities to be undertaken must be listed, specified and must be inclusive of all associated structures and infrastructures such as access routes and bulk services connection.
- The development footprint size of the proposed activity must be clearly defined in relation to the site development and layout plan.
- The proposed development must correspond with activities applied for under the Environmental Impact Assessment (EIA) Regulations, 2014 as amended.
- The draft scoping report indicates the presence of unchanneled valley bottom within the study area.
- A detailed site development and layout plan overlain by a composite sensitivity map must be attached in scoping report. This plan must be an A3 size and take into consideration all activities listed inclusive of associated infrastructure such as access routes and bulk services connection. The plan must also reflect buffer zones as indicated on page 34 of the Ecological Impact Assessment Report prepared by Gareth Preen dated 24 March 2020.
- The proposed site is affected by a dolomite in terms of the Department's Geographic Information System. Therefore, the Department recommend that a dolomite stability assessment be conducted and be included in the draft EIAR.
- Comparative assessment of all alternatives taking into consideration, the sensitive areas on the site, surrounding land uses, nature and scale of activity components must be done, and outcomes reported.
- A credible method of impact assessment, impact identification, rating and mitigation must be used to determine the impact of the proposed development on the biophysical environment on the site.

1.1 A detailed master storm water management plan must comply with the Sustainable Urban Drainage Systems (SUDS) Principles and consider source, local and regional controls.

1.2 A site (project) specific Environmental Management Programme (EMPr) which is practical and enforceable is attached the draft scoping report. However, the EMPr must be in line with the content requirements as stipulated in Appendix 4 of the Environmental Impact Assessment (EIA) Regulations, 2014, and must incorporate management and mitigation measures to impacts identified during the assessment and in the specialist studies.

1.3 The Public Participation process must be carried out in accordance with the minimum requirements of Chapter 6, Public Participation, GN. R326, of the EIA Regulations 2014 as amended.

1.4 All the specialist studies included in the Draft Scoping Report must be included in the Draft EIAR not in the Final Scoping Report.

If you have any queries regarding the contents of this letter, please contact the official of the Department at the number or email address indicated above.

Yours faithfully,

Mr. Steven Mukhola
Director: Impact Management
Date: 19/02/2021

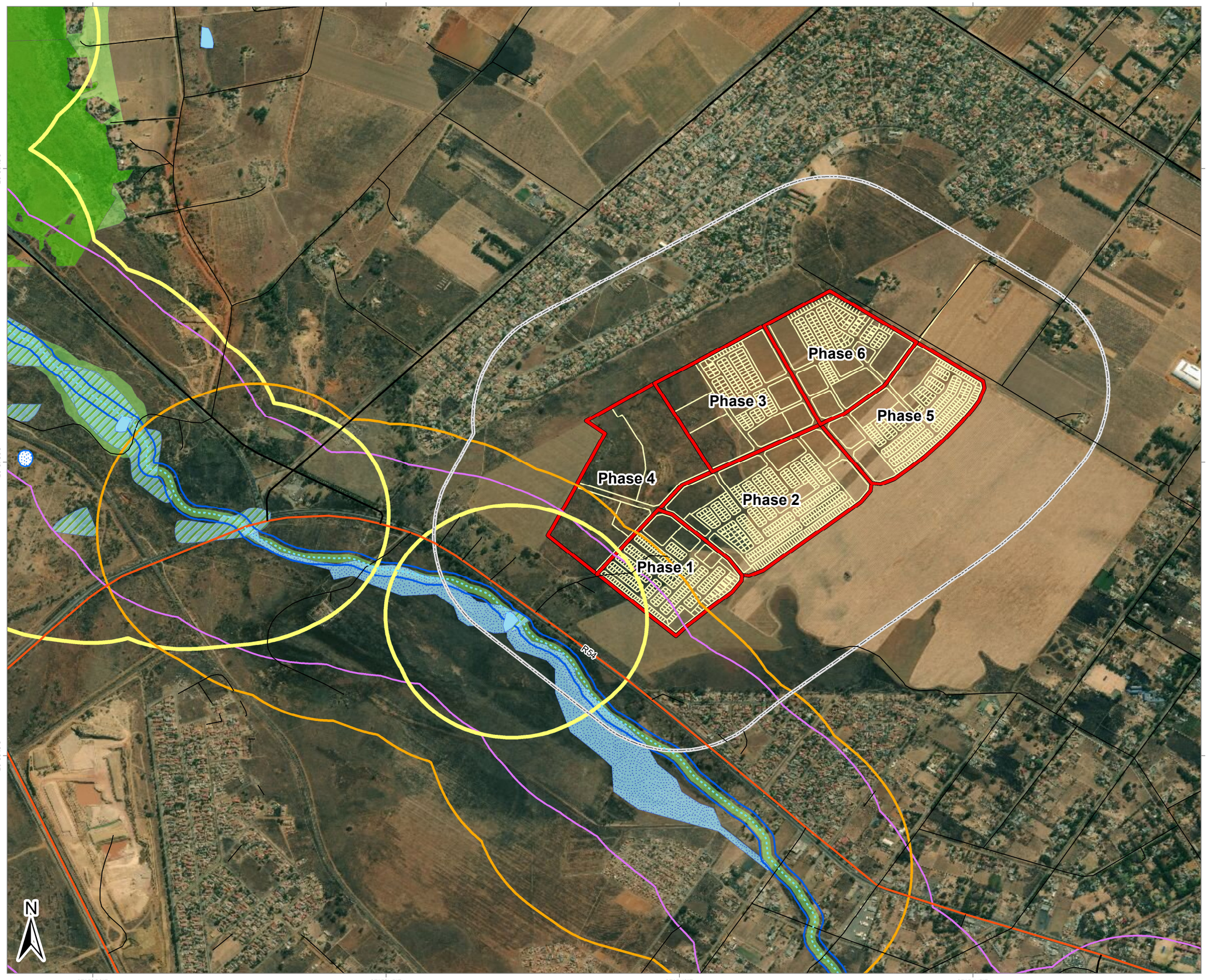
APPENDIX D

Site Development & Layout Plan

GCS

Water & Environmental Consultants

UNITAS PARK: SENSITIVITY MAP



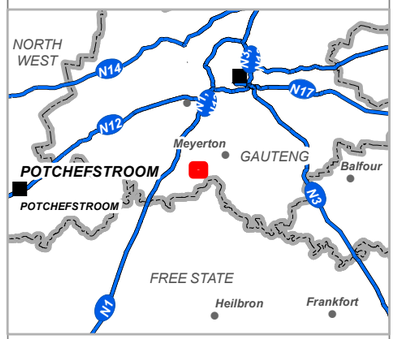
LEGEND

Rivers and Streams
- Non-Perennial

Road Network
- Main Road
- Secondary Road
- Street
- Construction Phases
- Proposed Infrastructure
- 500 m Site Buffer
- NFEPA Wetlands
- Unchannelled Valley Bottom 1
- 500 m Unchannelled Valley Bottom 1 Wetland Buffer
- 500 m NFEPA Wetland Buffer
- 500 m River Buffer
- 32 m River Buffer

C-Plan
- Ecological Support Area
- Critical Biodiversity Area (Important)

Inland Water
- Dams and lakes
- Non-perennial pans



Data Sources:
ESRI Basemap
SANBI 2011 NFEPA Wetlands, SANBI C-Plan Version 3.3
Wetlands from Specialist
NGI Rivers & Water Areas

0 250 500 Meters

SCALE: 1:17 000

FIGURE NO.:	-	MAP NUMBER:	19-0921-16-V2
DRAWN BY:	N NAIDOO GIS TECHNICIAN	REVIEWED BY:	L MASHEGO CONSULTANT
DATUM: PROJECTION:	WGS84 GEOGRAPHIC	DATE:	26 FEBRUARY 2021
PROJECT:	TOWNSHIP ESTABLISHMENT BRYANSTON EXT3 (JHB)		
CLIENT:	PHUMAF HOLDINGS		

GCS Water & Environmental Consultants

63 Wessel Road Woodmead
PO Box 2597 Rivonia 2128
South Africa

Tel: +27 (0) 11 803 5726
Fax: +27 (0) 11 803 5745
E-mail: jhb@gcs-sa.biz
www.gcs-sa.biz

PROPOSED LAYOUT: UNITAS EXTENSION 16

NORTH

Y: -98900
X: +2945620

PHASE 3
- 522 Walk Up units
- 42 Erven of 250sqm
- 80 Erven of 300sqm
- Mixed Use: 110 Walk Up Units
- Mixed Use: 4 428sqm GLA
- Social Facility Erf of 4 715sqm
- Public Open Space of 4 927sqm
- 1 Erf for Sports Field
- 1 Erf for Primary School
- 1 Erf for Secondary School

PHASE 6
- 764 Walk Up units
- 44 Erven of 250sqm
- 134 Erven of 300sqm
- Mixed Use: 104 Walk Up Units
- Mixed Use: 4 168sqm GLA
- Social Facility Erf of 9 896sqm
- Public Open Space of 4 927sqm

Y: 91000
X: -2945620

PHASE 4
- 4 560 Students to be accommodated in Student Village
- 1 140 Units if Student Village is used for Residential Units
- Innovation/Incubation Hub of 15 382sqm
- Public Open Space of 107 953sqm

PHASE 5
- 747 Walk Up units
- 291 Erven of 250sqm
- Mixed Use: 132 Walk Up Units
- Mixed Use: 5 302sqm GLA
- Social Facility Erf of 2 864sqm
- Public Open Space of 3 079sqm

PHASE 2
- 730 Walk Up units
- 459 Erven of 250sqm
- Mixed Use: 285 Walk Up Units
- Mixed Use: 14 154sqm GLA
- Social Facility Erf of 3 915sqm
- Public Open Space of 4 600sqm

PHASE 1
- 317 Erven of +/-250sqm
- Mixed Use: 233 Walk Up Units
- Mixed Use: 9 320sqm GLA
- Social Facility Erf of 3 395sqm
- Public Open Space of 3 383sqm

Y: -98900
X: +2947190

Y: 91000
X: -2947190

BAR SCALE: 1: 7000	200m	200m	200m	200m	200m	200m	200m	200m	200m	200m

SITUATED ON: PORTION 22 OF THE FARM HOUTKOP 594 IQ

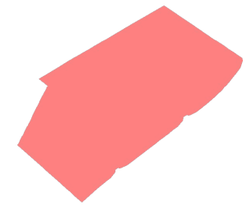
LOCAL AUTHORITY: EMFULENI LM

PROVINCE: GAUTENG

SCALE: 1: 7000

LOCALITY

NORTH



NOTES

1. FIGURE **A,B,C,D,E,F,G,H,J,K,L,M,N,P,Q,R,S,T,U,V, W,X,Y,Z,1A,1B,A** REPRESENTS A PORTION OF PORTION 22 OF THE FARM HOUTKOP 594 IQ, MEASURING **151Ha** IN EXTENT.
2. COORDINATE SYSTEM: WG 27
3. ALL AREAS AND DIMENSIONS ARE APPROXIMATE AND SUBJECT TO FINAL SURVEY.

LEGEND

1. PROPOSED LAND USES

- RESIDENTIAL LOWER DENSITY
- RESIDENTIAL MEDIUM DENSITY
- RESIDENTIAL HIGHER DENSITY
- MIXED USE
- STUDENT VILLAGE
- INNOVATION/INCUBATION HUB
- SOCIAL
- EDUCATIONAL
- PUBLIC OPEN SPACE
- SPORTS FACILITY
- INFRASTRUCTURE

DETAILS

DATE: 2021-02-22
DRAWN: RF MENTZ
SCALE: 1: 7000 (A3)
DRAWING NO: N/A

METROPLAN
TOWN PLANNERS AND URBAN DESIGNERS

PROJECT NUMBER: MP- 1367

PLAN NO 1

APPENDIX E

Draft Environmental Management Plan Report (EMPr)

GCS
Water & Environmental Consultants

63 Wessel Road, Rivonia, 2128 PO Box 2597, Rivonia, 2128 South Africa
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Draft Environmental Management Plan

Unitas Park – Extension 16

Version - Draft for Authority and Public Comment

January 2021

Phumaf Holdings (Pty) Ltd

GCS Project Number: 19.0921

Client Reference: 034RFP/7001/2019

GDARD Reference: 002/20-21/E0042

Draft Environmental Management Plan
Unitas Park – Extension 16

Version – Draft for Authority and Public Review

January 2021

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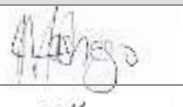
Title	Draft Environmental Management Plan (EMP) for Unitas Park Extension 16, Gauteng Province		
	Name	**Signature**	**Date**
Author	Lehlogonolo Mashego		January 2021
Document Reviewer	Gerda Bothma		January 2021

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1 OVERVIEW

1.1 Project Background

The Gauteng Rapid Land Release Programme (GRLRP) aims at fast tracking the release of serviced stands form State owned land to qualifying beneficiaries. The proposed site is located within Unitas Park, Vereeniging within the Sedibeng District Municipality and Emfuleni Local Municipality, 6 km north-west of the Vereeniging central business district (CBD), sandwiched between roads R54 and R42 (see **Figure 2-3** and **Figure 2-4).**

GCS Water and Environmental Consultants (Pty) Ltd (GCS) has developed this Environmental Management Plan (EMP) report in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998, as amended) were the application is for an EA. These regulations help guide management actions against the identified potential impacts through the construction, operation and decommissioning phases. Additionally, the EMP sets actions that enhance the project and its implementation through the recommended mitigation measures and as such this report is presented.

1.2 Purpose of the EMPr

This EMP has been developed in line with requirements under the NEMA Environmental Impact Assessment (EIA) Regulations to guide environmental management action throughout the project lifespan and ensure that any adverse environmental impacts that result from the activities are adequately managed and mitigated for. Section 19 of the NEMA EIA Regulations of 2017, as amended (GN R326 in GG 40772, April 2017), requires that the Applicant submit an Environmental Management Programme (EMPr) to the Competent Authority. This EMPr will form part of the Environmental Authorisation for Unitas Park – Extension 16, 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 EMP outlines all environmental management and monitoring actions, set to a timeline and with specific assigned responsibilities. This EMP 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 during the rehabilitation project. The objectives of the EMP are as follows:

- Ensure compliance with the relevant legislation;
- Verify environmental performance through information on impacts as they occur;
- Respond to changes in project implementation or unforeseen events; and

- Provide feedback on for 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 2014, as amended (GN 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 Environmental Management Programme (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, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including— (i) Planning and design; (ii) Pre-construction activities; (iii) Construction activities; (iv) Rehabilitation of the environment after construction and where applicable post closure; and (v) Where relevant, operation activities;	Section 4
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— (i) Avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;	Section 4

(ii) Comply with any prescribed environmental management standards or practices; (iii) Comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) Comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	
The method of monitoring the implementation of the impact management actions;	Section 3
The frequency of monitoring the implementation of the impact management actions;	Section 3
An indication of the persons who will be responsible for the implementation of the impact management actions;	Section 3
The time periods within which the impact management actions must be implemented;	Section 4
The mechanism for monitoring compliance with the impact management actions;	Section 3
A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	Section 3
An environmental awareness plan describing the manner in which— (i) The applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) Risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Section 4
Any specific information that may be required by the competent authority.	NA

1.4 Environmental Assessment Practitioner (EAP)

GCS have been appointed by Phumaf Holdings (Pty) Ltd (Phumaf) as the independent environmental assessment practitioners (EAPs), to oversee the development of this EMP.

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	Daniel.Molokomme@gauteng.gov.za
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 professional experience in township development. Additionally, three (3) specialist studies were included as part of the assessment;
- The mitigation measures recommended in this EMP document are based on the risks/impacts identified through the scoping assessment, professional knowledge and specialist input. These impacts were identified according to the provided project description and the known receiving environment. Should the scope of the project change, the risks will have to be reassessed and mitigation measures updated accordingly.

1.6 Legal Requirements

The EMP should take cognizance of the relevant South African legislation as well as best practice guidelines. **Table 1-4** below lists the most relevant environmental legislation and guidelines applicable to this project and the EMP.

Table 1-4: Applicable legislation and best practice guidelines to be considered in this EMP.

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 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".	The Applicant must ensure that environmental impacts are avoided, mitigated or managed as far as possible throughout the life cycle of the project.

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
National Environmental Management Act (Act 107 of 1998) (NEMA)	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".	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.
National Environmental Management: Waste Act (Act 59 of 2008) (NEM:WA)	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 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.	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.
National Environmental Management: Air Quality Act (Act 39 of 2004) (NEM:AQA)	Regulates activities which may have a detrimental effect on ambient air quality including certain processes and dust generating activities.	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.
National Environmental	Regulates the protection of biodiversity and the management of invasive species. Section 73	Should a threatened or protected species be

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
Management: Biodiversity Act (Act 10 of 2004) (NEM:BA)	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."	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.
Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA)	Regulates the eradication of weeds and invader plants, including those occurring on development sites.	It is the duty of the Applicant to remove invasive species found on site.
National Water Act (Act 36 of 1998) (NWA)	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.	A Water Use Licence will be required for this development and will be undertaken simultaneously.
The National Heritage Resources Act (Act 25 of 1999) (NHRA)	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."	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.
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.

LEGISLATION/ GUIDELINES	DESCRIPTION	APPLICABILITY
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

Unitas Park – Extension 16 is located on Portion 222 of the farm Houtkop 549 IQ within Unitas Park, Vereeniging within the Sedibeng District Municipality and Emfuleni Local Municipality. The site was originally planned to have a township layout, with 2680 residential erven, two primary and one high school, three social/commercial facility erven and three open space erven. This layout was approved; however, not proclaimed or registered as this "standard layout" did not accommodate different residential densities and it did not comply with the latest environmental and geotechnical requirements. The new strategy for this site is a proposed 7 250 units comprising of mixed high density and to achieve the proposed yield, the existing layout will have to be withdrawn and a new application submitted.

The area is currently zoned as Farmland on a dolomitic zone in terms of Geophysics. The total extent is approximately 149 hectares and is owned by the Gauteng Provincial Government. The proposed site is currently vacant, with immediate adjacent land portions also being vacant. There is evidence of water courses on the site, as well as to the south east of the site. A drainage line appears to run from the site towards Houtkop Road to the south west, where the surface water drains under the road and continues to flow into a National Freshwater Ecosystem Protection Area (NFEPA). The buffer of the NFEPA includes a portion of the south west of the site.

The proposed project entails the phased establishment of a mixed use residential development inclusive of the following land uses: low, medium and high density residential; student village; mixed use; innovation hub; social/educational; public open space and sports facility.

2.2 Site Sensitivity

2.2.1 Climate

The red line in Figure 2-1 below indicates the mean daily maximum temperature, ranging between 18C in winter and 29C in summer, while the blue line indicates the mean daily minimum temperature, which ranger between 2C in winter and 15C in summer months. The maximum temperatures in summer can reach approximately 35C, while in winter, the number of days that frost occurs can reach up to 8 days in July. The mean annual precipitation ranges from a minimum of 1mm per month in winter to a maximum of 107mm per month in summer (Meteoblue, 2020).

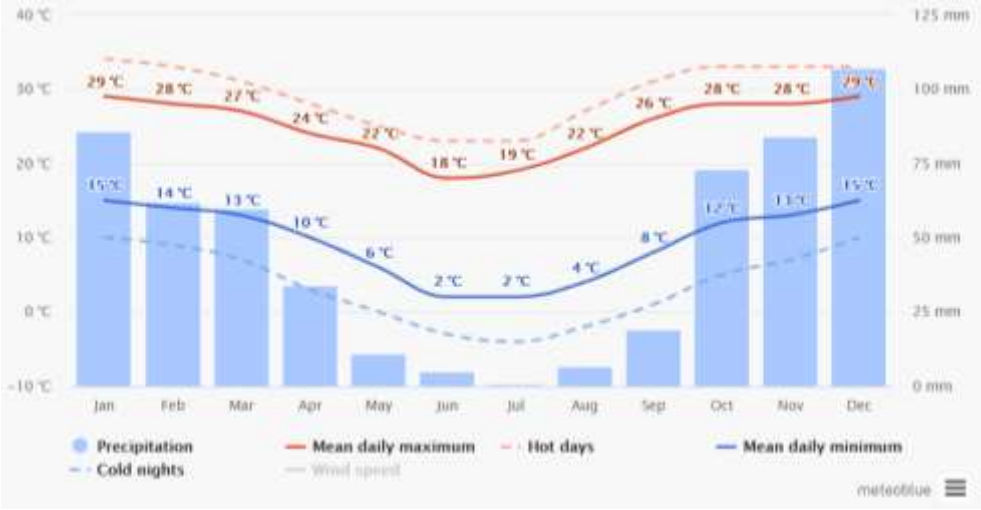

Figure 2-1: Mean monthly temperatures and precipitation in the Vanderbijlpark area (Meteoblue, 2020)

2.2.2 Topography, Drainage and Watercourses

From a southerly to northerly direction, the topography across the study area is relatively undulating with a steady rise from the south to the north. A similar topographic profile is evident from the west to the east of the proposed development area. There is a steady undulating decrease of the topographic slope west to east.

The proposed development area falls within the C22F Quaternary Catchment and the Upper Vaal Water Management Area (WMA). The ephemeral drainage line which falls within the study area and which is approximately 426 m south of the proposed development sites drains south east towards the Vaal Rivier.

The hydrological component of the wetland system has been seriously modified through the canalization and stream channel modification or the system. Unchannelled valley bottom wetlands are generally characterised by diffuse surface flow in their natural states. As such, it was determined that canalization and stream channel modifications have had serious impacts on the hydrology of the system.

2.2.3 Geology and Soils

According to the Environmental Protection Atlas (ENPAT) geology data for the Gauteng Province, the site is underlain by a Quartzite Geology. The associated patterns with the geology in this area are rare upland duplex and margalitic soils and widespread dystrophic and/or mesotrophic red soils. The ENPAT data also indicates that the soil form that overlays this geology is the Hutton Formation.

The Hutton soil formation is characterised by an orthic A-horizon over a red apedal B-horizon. This soil form is generally reddish coloured with a weak structure in which water stagnation does not generally take place.

Six different soil forms (Carolina, Cullinan, Dresden, Glencoe, Lichtenburg and Mispah) were identified within the proposed development site. Both the Cullinan and Carolina soil forms are newly described soil forms of the new Natural and Anthropogenic Soil Classification System of South Africa (Soil Classification Group, 2018). The natural soil forms identified on site include soil of the Carolina, Dresden, Glencoe, Lichtenburg and Mispah forms while the Cullinan form is an anthropogenic soil form.

Approximately 95.6ha of the 154ha study site consists of yellow-brown and red sandy-clayloam soil profiles of the Carolina, Glencoe and Lichtenburg forms with soil depth of 1m or deeper than 1m. These soil profiles are located in the northern, eastern, south-eastern and centre of the study area. A small portion (1ha) of shallow Dresden soil profiles are located in the south of the study area. More than 95% of the areas of Carolina, Dresden, Glencoe and Lichtenburg soil forms have been used for maize cultivation the past growing season (2019 – 2020).

The western section of the proposed development area consist of shallow Mispah profiles with soil depth between 0.1 and 0.35m where evidence of a derelict old farmhouse was found. Two areas of previous soil excavations are present in the western section of the site (Cullinan form). The Cullinan form soil form has been described as large, exposed excavations without backfilling (Soil Classification Working Group, 2018).

2.2.4 Land Cover and Land Use of the Region

The area is zoned for farming/agricultural. Evidence was found of a derelict farmstead surrounded by what may be the remains of a garden around the house. The current land use of the site largely consists of rainfed production of grains (maize was planted for the 2019-2020 growing season) as well natural veld that may be used for livestock production (will be confirmed when information is received from farmer who leases the property). Within the south-western section of the study site, there are evidence of two areas of previous soil excavation in where gravel and fractured rock was removed without any backfill or active rehabilitation of the area.

Land outside the proposed development site consist of a mixture of land uses, including residential areas and a school to the north-west of the site as well as rainfed crop production and farmsteads towards the north-east, east and south-east of the study site. The R54 (Houtkop Road) is located south of the study site.

2.2.5 Flora and Fauna

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%.

The open and degraded grassland were determined to have low to very low naturalness due to the extensive commercial agriculture taking place within the study area. During the infield floral assessment, no species of conservation concern were observed. The study area falls within the Soweto Highveld Grassland which is considered to be endangered. However, very small and scattered areas of open grassland was identified.

Although the area has the potential to provide habitat for a diverse range of fauna species in a natural state, the degraded nature resulted in very few fauna species being observed. One (1) mammal species, namely the *Lepus saxtilis* (Scrub Hare) (LC) was observed. Additionally, large flocks of *Streptopelia decipiens* (African Dove) (LC) were observed.

2.2.6 Socio-Economic

According to the Sedibeng Growth and Development Strategy 2 (Sedibeng District Municipality, 2012), the Unitas Park population is of low-Living Standards Measurement 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 Unitas Park. 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.

2.2.7 Traffic

Background

The site is well-connected on a regional scale. To the south is Houtkop Road (R54), to the south-west is the R28 and to the east is the R59 (Old Johannesburg Road). The proposed PWV 20 runs to the west of the site and the proposed K55 abuts the site on its eastern boundary. On a more local level, the extension of Houtkop Road, Skippie Botha Road, and Langrand Road provides connectivity to the north, east, and west.

A strong movement of people occurs between Vanderbijlpark, Vereeniging, and Meyerton towards Johannesburg along the P156 freeway. A strong movement also occurs between Sebokeng and Johannesburg, especially during the morning and afternoon peak hours, as commuter access employment opportunities in Johannesburg and surrounding areas. A strengthening of movement in the future can be expected between Vereeniging and Sebokeng, as urban development and densification occur along this corridor. Movement along the corridor between Vereeniging, Sebokeng, and Johannesburg is supported by the existing commuter railway line.

Rail Network

Emfuleni is served by a rail network that connects Emfuleni to neighbouring areas in Gauteng and the Free State. This rail network consists of three (3) lines.

- The first rail line stretches along with the P156 (R59) freeway and links Sasolburg to Vereeniging, Meyerton, and Germiston. This rail line is primarily a freight line but does contain commuter railway stations along sections of the line.
- The second railway line stretches from Sasolburg, via Vereeniging towards Sebokeng, Orange Farm, and Johannesburg. This railway line also functions as a freight railway line, although it also fulfills a significant commuter railway line function.
- The third railway line stretches from Sebokeng towards Westonaria. This railway line is exclusively used for rail freight purposes.

Road Network

Emfuleni comprises of an extensive bus network that serves the municipal area. A prominent bus route is the bus route linking Vereeniging to Sebokeng along with the K53 (Moshoeshoe Road) and the K45 (Golden Highway). This bus route links Evaton and Sebokeng to the Vereeniging CBD and the industrial areas located within Vereeniging. Equally so, the area comprises of an extensive mini-bus taxi network. This network largely uses the same routes as of the bus routes and serves the same areas within the municipal area. The only significant exception is that the minibus route links Vanderbijlpark CBD to Sebokeng via Mittal Steel; a route that the bus network does not serve.

The proposed development will generate an estimated 566 trips during the weekday AM and weekday PM peak periods, respectively. Whilst this has been identified, it is to be noted that the site is currently underdeveloped and existing capacity constraints, as such the development needs to meet this along with the increased traffic impacts. As a precautionary measure the analysis performed, found that the impact of the proposed developments can be mitigated by means of several road and intersection improvements

2.2.8 Heritage sites and paleontological importance

A Heritage study was undertaken by HCAC (2020) and a paleontological study by Marion Bamford (2020) to determine the character of the site in terms of cultural resources. T Due to the area being ranked of high significant by SAHRIS (Figure 2-2), a paleontological study was undertaken. The non-intrusive field survey identified some scatted Stone Age artefacts, a stone cairn of unknown purpose and a partially demolished homestead. The paleontological study concluded that, as the site lies on soils that overlay deposits of siltstones, mudstones, shales and possible coal seams of the Vryheid Formation, there is a possibility of fossils being preserved. However, these rocks are only potentially present more than 50m below the surface. It is therefore unlikely that fossils will be unearthed.

Due to the site being used for the cultivation of maize, a large portion of the site was inaccessible. Although artefacts were identified in the areas that could be accessed, they are rated as having low heritage significance. It is recommended that the area is monitored during the construction phase.

Figure 2-2: SAHRIS palaeosensitivity map for the proposed development in Unitas Park Ext 16 shown within the yellow rectangle.

(Background colours indicate the following degrees of sensitivity: red = very highly sensitive; orange/yellow = high; green = moderate; blue = low; grey = insignificant/zero)

Figure 2.3: Unitas Park – Extension 16 Erf 2680 Locality Map

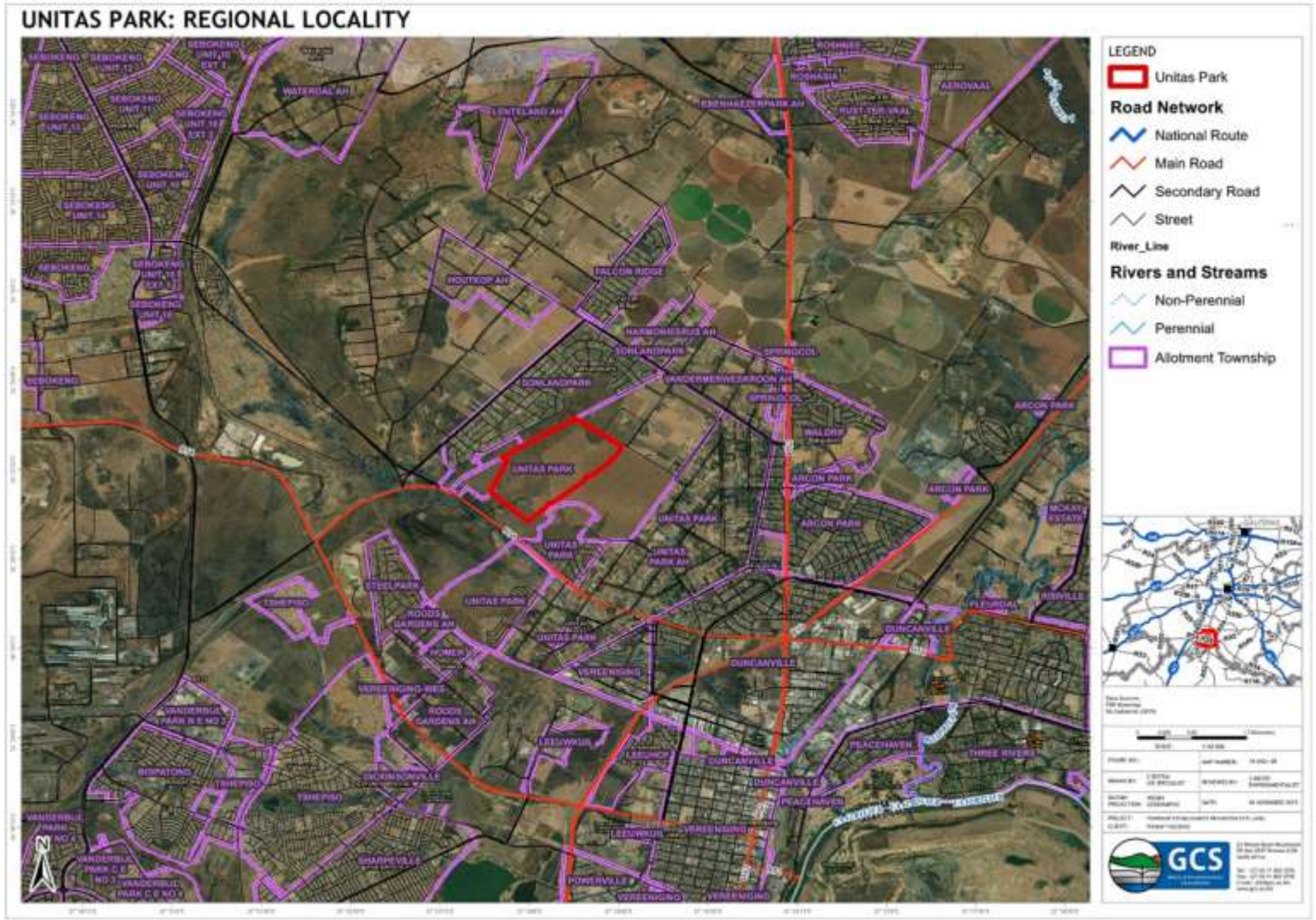

Figure 2.4: Unitas Park – Extension 16 Erf 2680 Regional Locality

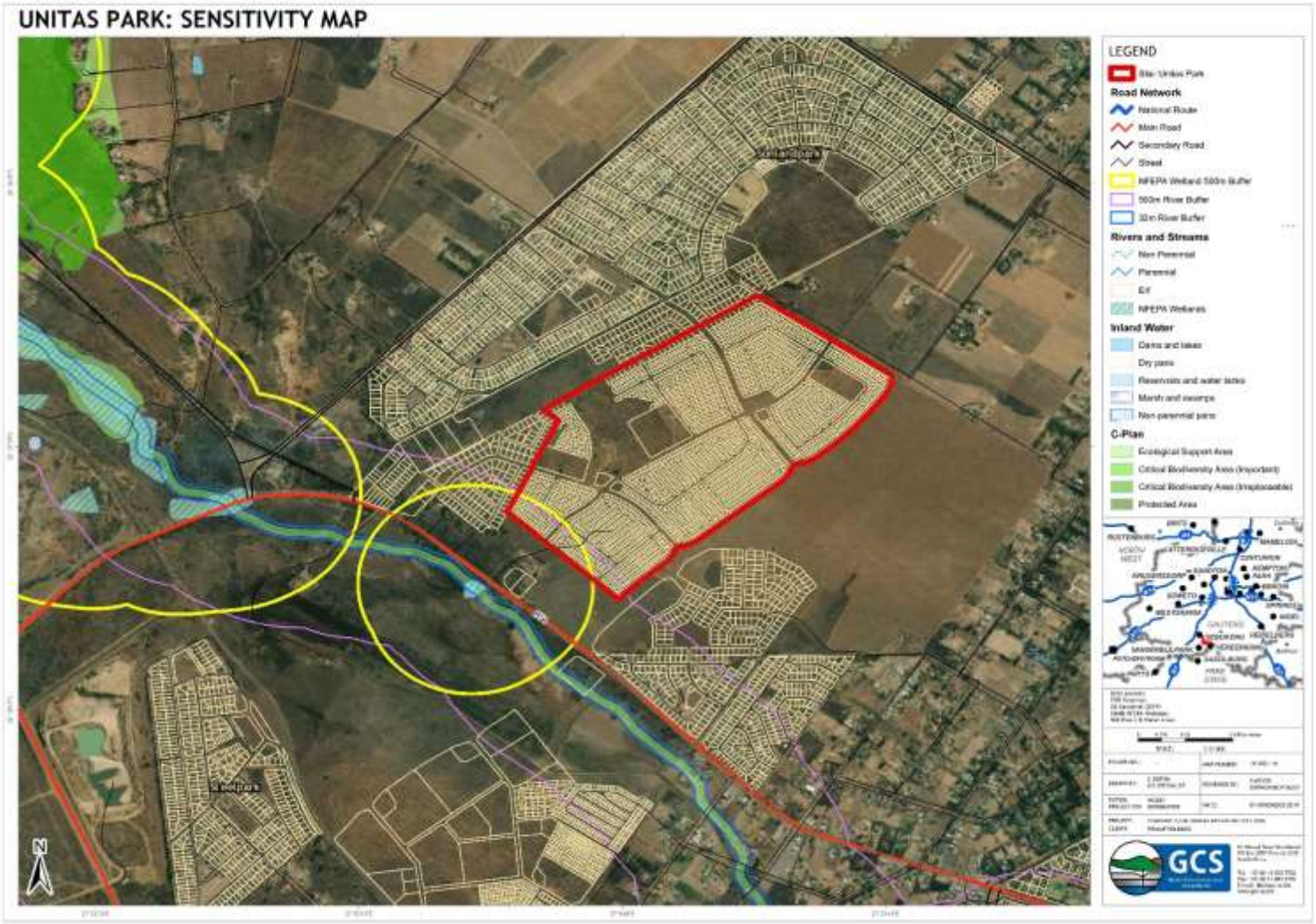

Figure 2-5: Unitas Park – Extension 16 Erf 2680 Sensitivity Map

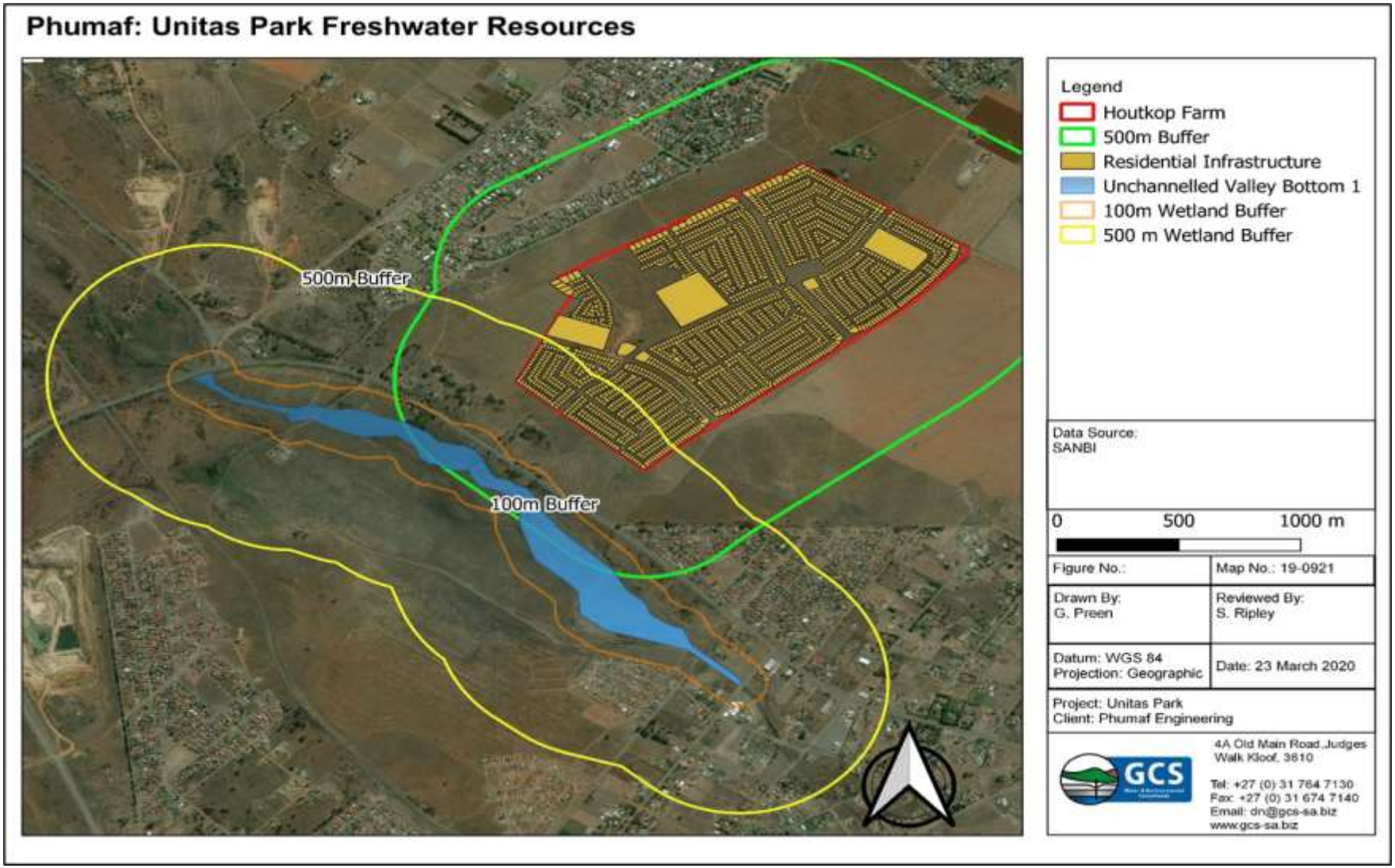

Figure 2-6: Unitas Park – Extension 16 Erf 2680 Sensitivity Map.

2.3 Activity Description

The proposed development of Unitas Park – Extension 16 from agricultural to mixed use residential/township development will include the following g the 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 Project Manager and Engineer's Representative

Phumaf has been appointed by DHS – Provincial to undertake the design and implementation of the project. Phumaf will thus be responsible for appointing a Contractor to undertake the construction necessary to achieve the objectives of the GRLRP based on the project design for Unitas Park – Extension 16. The Contractor will manage the site, but this must be monitored by a representative from Phumaf (Engineer) in order to oversee and manage the environment (and associated) aspects of the development. It is to be noted that Phumaf is ultimately responsible for the implementation of the EMP.

The representative 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 Error! Reference source not found.. 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

Phumaf will appoint an Environmental Control Officer (ECO) to assess (on a monthly basis during construction and e very five (5) years during the operational phase) the implementation of the EMPr on site. The Engineer may decide to assign this role to one person for all phases or to assign a different ECO for each phase respectively. The ECO's responsibilities include the following:

- 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

Based on the investigation of the receiving environment acquired from previous experience, a desktop assessment, site visit, DEA Online Screening Tool, Specialist input, as well as the understanding of activities to be carried out for the construction and operation phases of the project, the potential environmental impacts during the various phases of the development will be identified and addressed in detail during the EIA phase. Potential impacts that have been identified at this stage are presented in Table **3-1**.

Table 3.1: Preliminary impacts identified.

ENVIRONMENTAL ASPECTS	POTENTIAL ENVIRONMENTAL IMPACT	SPECIALIST STUDY TO INVESTIGATE IMPACT
Vegetation/Flora	• Clearing or damage to vegetation • Disruption of ecological connectivity; • Loss of biodiversity; • Spreading of weeds and alien vegetation; and • Introduction of alien invasive plants.	Ecological Impact Assessment and Environmental Management Plan
Wildlife/Fauna	• Loss and degradation of faunal habitat and diversity; • Introduction of alien invasive plants.	Ecological Impact Assessment and Environmental Management Plan
Wetlands	• Loss of ecological services/processes	Ecological Impact Assessment and Environmental Management Plan
Soils and Geology	• Loss of soil resource, land use and land capability • Loss of soil productivity • Contamination of soil resources	Soils, Land Capability and Agricultural Potential Assessment
Land-Use	• Permanent change in the land use from agricultural to residential • Altering of geological strata • Alteration of natural topography	Soils, Land Capability and Agricultural Potential Assessment
Surface Water	• Change in drainage patterns • Contamination of surface water resources • Potential contamination of surface water resources	Design Stormwater Management Plan Implement Environmental Awareness and Response Plan
Groundwater	• Potential contamination of groundwater resources; • Poor quality seepage	Environmental Management Plan Implement Environmental Awareness and Response Plan
Air Quality	• Fugitive dust releases	Environmental Management Plan
Heritage	• Possible damage to heritage artefacts • Disturbance of heritage resources.	Environmental Management Plan and Environmental Awareness and Response Plan

ENVIRONMENTAL ASPECTS	POTENTIAL ENVIRONMENTAL IMPACT	SPECIALIST STUDY TO INVESTIGATE IMPACT
Waste	• Waste generation; • Increase in greenhouse gas emissions as a result of construction activities (gases emitted by construction vehicles); and • Release of hazardous substances, including hydrocarbons, into the environment.	Environmental Management Plan and Environmental Awareness and Response Plan
Visual	• Negative Impacts on aesthetics • Change of Visual Character • Landscape visual change	Environmental Management Plan
Health and Safety	• Disturbance to road users; • Disturbance to surrounding property owners, users and businesses (noise and dust impacts); and • Health and safety of construction team, road users and surrounding property owners, users and businesses.	Environmental Management Plan
Socio-economic	• Employment opportunities through temporary job creation (positive) • Nuisance factors of traffic, dust, noise • Increase in crime	Environmental Management Plan Stakeholder Communication Strategy and Grievance Mechanism

The following key impacts have been identified as per the pre-empted project phases:

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;

- Surface water 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;
- Surface water contamination from sewage leaks;
- Surface water 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;
- Surface water 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 EMP (**Table 4-2**) 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 reduce the significance of these impacts.

It is important that the Engineer assess the following commitments in detail. In signing the final version of the EMP, the Engineer acknowledges their responsibility to uphold the specific management actions detailed below. It should be noted that although responsibility has been allocated to the Contractor team in most instances, the Engineer is responsible for ensuring that the EMP and its conditions are implemented and adhered to.

Table 4-2: EMP Management Actions.

ASPECT	IMPACT	MANAGEMENT ACTIONS
PLANNING AND DESIGN PHASE		
Site design and layout	Avoidable environmental harm resulting from unsuitable site designs or layout	1. Site design/layout should minimise transformed spaces and ensure that the footprint is as small as possible 2. Site design must include indigenous garden patches in order to maintain some connectivity for insects, birds and reptiles 3. Gardens must contain insect-, bird- and reptile-friendly indigenous grass, bush and tree species 4. 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) 5. Large plant species (trees, bushes) must be left on site if and where possible 6. Stormwater designs must be appropriately designed so as to minimise erosion 7. A waste management plan must be compiled prior to the commencement of the construction phase;
	Avoidable social impacts resulting from unsuitable site designs or layout	8. Site design/layout should include open spaces to avoid over-crowding 9. The site should be designed so as to minimise disturbance to residents in the area, as far as possible
Construction planning	Social disturbance resulting from improper construction planning	10. The construction site must be clearly marked and should not exceed the boundaries of the construction site plan 11. The unnecessary removal of vegetation outside of the construction site plan is not permitted 12. All threatened or protected species (TOPS) in the vicinity of the construction activity should be identified prior to construction beginning 13. An IAPS management plan must be compiled by a suitable specialist prior to the commencement of construction activities. This must be implemented throughout

ASPECT	IMPACT	MANAGEMENT ACTIONS
		the construction and operational phase. This must be monitored by the Environmental Control Officer (ECO) 14. All construction machinery, vehicles and personnel movement must be limited to the existing informal tracks around the site 15. No fires are permitted on site 16. Construction must be planned so as to minimise disturbance to the current residents of the area 17. At least two weeks prior to construction, residents should be warned of possible disturbances 18. The Engineer/Contractor must maintain open communication with the surrounding residents regarding the progress and timeframes of the project 19. The Contractor must record and repair any damage to neighbouring properties caused by construction activities
Relevant permitting	Illegal activities resulting from a lack of appropriate permitting	20. The EA and WUL must be in place prior to construction beginning 21. A permit in terms of NEM:BA must be in place should any TOPS need to be relocated or damaged (including trimmed) 22. A permit in terms of NHRA must be in place should any heritage artefacts need to be relocated
CONSTRUCTION PHASE		
Environmental awareness	Lack of awareness may result in environmental harm and/or non-compliance to the EMPr/EA	23. Comprehensive induction of all employees on site, including an environmental section which outlines as a minimum the following: o Explanation of the importance of complying with the EMPr o Discussion of the potential environmental impacts of development activities o Employees' roles and responsibilities, including emergency preparedness

ASPECT	IMPACT	MANAGEMENT ACTIONS
		○ Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities ○ Importance of biodiversity 24. Daily safety talks should include environmental topics (at least one environmental topic per week) to increase general and site-specific environmental awareness
Monitoring of compliance and EMP implementation	Lack of monitoring may result in environmental harm and/or non-compliance to the EMPr/EA	25. 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 26. The Engineer/Applicant's representative should conduct weekly inspections of the site and implementation of the EMPr 27. 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
Vegetation clearance	Loss of or disturbance to vegetation and habitat	28. The clearance footprint should be kept as small as possible 29. The site must be clearly demarcated, and employees made aware to stay within its boundaries 30. Areas that are not intended for clearance must be appropriately marked and cordoned off as "no-go areas" 31. Construction machinery and vehicles to stay within site and on demarcated roads as far as practically possible 32. Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible 33. Floral species to be left on site must be appropriately marked and cordoned off to prevent damage 34. No fires are permitted on site

ASPECT	IMPACT	MANAGEMENT ACTIONS
		35. The open grassland identified and demarcated within this report must be avoided as far as practicable 36. These individuals should be barricaded and the construction team must be trained in their importance to ensure they are not damaged; 37. TOPS may not be relocated or damaged (including trimmed) without a permit 38. Other large trees and bushes should be similarly protected 39. Employees may not litter in the grassland areas or use them as ablution facilities 40. Edge effect control needs to be implemented within construction areas, with specific consideration to compaction and erosion control
	Loss of topsoil	41. Topsoil must be cleared and stored separately from subsoil and other excavated materials (e.g. rock) 42. Topsoil stockpiles should be no higher than 2 m tall 43. Topsoil should be stockpiled for the least amount of time before being reused on site for rehabilitation or moved to other sites for use 44. Topsoil stockpiles should be barricaded so as to prevent loss of topsoil through erosion
	Erosion of surrounding soil	45. The clearance footprint should be kept as small as possible 46. 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 47. Stockpiles may not exceed 5 m in height and must be covered using an impermeable material
	Loss of threatened or protected species (TOPS), both floral and faunal	48. Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible 49. Floral species to be left on site must be appropriately marked and cordoned off to prevent damage

ASPECT	IMPACT	MANAGEMENT ACTIONS
		50. Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees 51. Permits must be in place if any plant TOPS will be removed, trimmed or relocated 52. Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery 53. No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site 54. 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 55. No poisons are to be utilised on site
	Introduction/ proliferation of AIS	56. Any plant AIS noted on site must be removed 57. Disturbed soils must be monitored for colonisation of plant AIS 58. Plant AIS must be removed from disturbed soils before seeding and disposed of with general waste 59. 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
	Soil and groundwater contamination resulting from hydrocarbon leaks from clearing machinery/equipment	60. Restrict movement of construction employees, vehicles and machinery outside of construction areas 61. Restrict vehicles to travel only on designated roadways 62. Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 63. 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 64. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used

ASPECT	IMPACT	MANAGEMENT ACTIONS
		65. Park construction vehicles in areas lined with concrete or fitted oil traps 66. Stationary construction vehicles and machinery must have drip trays placed underneath 67. Ensure vehicles are in good condition and not leaking fuel or oil when entering the construction area 68. Regular vehicle and equipment inspections 69. Use of bunds during refuelling 70. Maintenance to be done off site 71. 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 72. Drip trays must be in good condition (i.e. no holes and not bent or flattened) 73. All employees are to be trained in proper spill management techniques and drilled quarterly 74. Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements 75. 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 76. 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 77. Significant spills must be reported to GDARD
	Soil and groundwater contamination from hazardous substance spills	78. All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area 79. Employees must be trained on appropriate hazardous substance management techniques

ASPECT	IMPACT	MANAGEMENT ACTIONS
		80. Appropriate PPE (e.g. gloves, safety goggles) should be used when handling hazardous substances; and 81. Hazardous substances must be transported by an appropriately licenced contractor and disposed of in an appropriately licensed facility. 82. 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 83. Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills 84. Hazardous substances must be stored in appropriately sealed and labelled containers and/or bunded areas 85. Hazardous waste must be stored in appropriately sealed and labelled waste containers and/or bunded areas 86. A record of all spills must be kept on site
	Surface water contamination from hydrocarbon/ hazardous substance spills	87. The construction site must be clearly marked and should not exceed the boundaries of the construction site plan. 88. The wetland system must be demarcated as a no-go zone 89. A 45 m buffer must be established and maintained during the construction phase of the proposed development. This must be monitored by the ECO 90. Keep impact footprint as small as possible 91. Construct cut-off berms downslope of working areas, demarcate footprint areas to be excavated to avoid unnecessary digging 92. Exposed areas must be ripped and vegetated to increase surface roughness 93. Create energy dissipation at discharge areas to prevent scouring

ASPECT	IMPACT	MANAGEMENT ACTIONS
		94. Temporary and permanent erosion control methods may include silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed areas, erosion mats, and mulching 95. Compacted areas must be ripped (perpendicularly) to a depth of 300 mm 96. A seed mix must be applied to rehabilitated and bare areas 97. Any gullies or dongas must also be backfilled 98. Soil management plans should be in place which will include the use of correct stockpiling methods 99. Berms should be placed around soil stockpiles to secure them 100. Stockpiles must not exceed 5 m in height.
	Impact on vehicular traffic from movement of clearing machinery	101. All operators and drivers must possess the appropriate driver's licenses 102. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 103. 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 104. Heavy machinery/vehicles should not be parked within the road or on the road verge
	Increase in emissions of greenhouse gases by construction machinery/vehicles	105. Construction machinery and vehicles should be kept to a minimal as far as practically possible 106. Use of car-pooling or public transport by employees must be encouraged 107. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Dust generation	108. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust 109. Dust screens should be erected around working areas if and where practically possible

ASPECT	IMPACT	MANAGEMENT ACTIONS
		110. Employees must be provided with appropriate dust masks
	Noise generation	111. Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities 112. Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 113. Excessive noise from employees must be discouraged where possible 114. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	115. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents 116. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 117. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 118. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams 119. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site. The waste bins must be wind and scavenger proof 120. Waste bins should be periodically inspected to ensure they are not overflowing 121. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 122. Tips should be periodically serviced to ensure they do not overflow 123. Tips must be serviced by a licensed service provider

ASPECT	IMPACT	MANAGEMENT ACTIONS
		124. 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) 125. Volumes of waste removed must be monitored and reduced where possible 126. No waste may be buried or burned on site or anywhere else 127. 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
	Destruction or partial destruction of non-renewable heritage resources	128. 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: o 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 o 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
		○ 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. 129. If fossils are seen on the surface or during clearance/excavations: ○ 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) ○ Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment ○ 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 ○ 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
		○ 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
	Health and safety of construction workers	130. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 131. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 132. Daily health and safety training must be undertaken to ensure employees remain vigilant 133. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 134. An Emergency Response Plan must be available on site at all times 135. Unsafe work areas should be identified and marked as such 136. MSDSs for any hazardous substances are to be readily available on site 137. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area 138. A fully stocked first aid kit must be available on site at all times 139. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times
Excavation and service structure installation	Loss of topsoil	140. Topsoil must be cleared and stored separately from subsoil and other excavated materials (e.g. rock) 141. Topsoil stockpiles should be no higher than 2 m tall

ASPECT	IMPACT	MANAGEMENT ACTIONS
		142. Topsoil should be stockpiled for the least amount of time before being reused on site for rehabilitation or moved to other sites for use 143. Topsoil stockpiles should be barricaded so as to prevent loss of topsoil through erosion
	Erosion of surrounding soil	144. The site footprint should be kept as small as possible 145. 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
	Loss of TOPS, both floral and faunal	146. Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible 147. Floral species to be left on site must be appropriately marked and cordoned off to prevent damage 148. Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees 149. Permits must be in place if any plant TOPS will be removed, trimmed or relocated 150. Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery 151. No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site 152. 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 153. No poisons are to be utilised on site
	Soil and groundwater contamination resulting from hydrocarbon leaks from excavators	154. Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 155. 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
		156. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used 157. 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 158. Drip trays must be in good condition (i.e. no holes and not bent or flattened) 159. All employees are to be trained in proper spill management techniques and drilled quarterly 160. Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements 161. 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 162. 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 163. Significant spills must be reported to GDARD 164. A record of all spills must be kept on site
	Soil and groundwater contamination from hazardous substance spills	165. All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area 166. Employees must be trained on appropriate hazardous substance management techniques 167. All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately 168. Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills 169. A record of all spills must be kept on site

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Impact on vehicular traffic from movement of excavators	170. All operators and drivers must possess the appropriate driver's license 171. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 172. 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 173. Heavy machinery/vehicles should not be parked within the road or on the road verge
	Increase in emissions of greenhouse gases by construction machinery/vehicles	174. Construction machinery and vehicles should be kept to a minimal as far as practically possible 175. Use of car-pooling or public transport by employees must be encouraged 176. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Dust generation	177. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust 178. Dust screens should be erected around working areas if and where practically possible 179. Employees must be provided with appropriate dust masks
	Noise generation	180. Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities 181. Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 182. Excessive noise from employees must be discouraged where possible 183. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	184. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents

ASPECT	IMPACT	MANAGEMENT ACTIONS
		185. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 186. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 187. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams 188. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site 189. Waste bins should be periodically inspected to ensure they are not overflowing 190. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 191. Tips should be periodically serviced to ensure they do not overflow 192. Tips must be serviced by a licensed service provider 193. 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) 194. Volumes of waste removed must be monitored and reduced where possible 195. No waste may be buried or burned on site or anywhere else 196. 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Destruction or partial destruction of non-renewable heritage resources	197. 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: o 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 o 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 o 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. 198. If fossils are seen on the surface or during clearance/excavations: o 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)

ASPECT	IMPACT	MANAGEMENT ACTIONS
		○ Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment ○ 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 ○ 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 199. 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
	Health and safety	200. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 201. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 202. Daily health and safety training must be undertaken to ensure employees remain vigilant 203. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 204. An Emergency Response Plan must be available on site at all times

ASPECT	IMPACT	MANAGEMENT ACTIONS
		205. Unsafe work areas should be identified and marked as such 206. Deep excavations must be cordoned off and marked as such 207. Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site 208. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required 209. A fully stocked first aid kit must be available on site at all times 210. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times
Paving, concreting and infrastructure development/building	Erosion of surrounding soil	211. The site footprint should be kept as small as possible 212. 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 213. Concreted/paved areas must include suitable drainage and stormwater management systems to avoid erosion of the surrounding land, as per the stormwater management design
	Loss of TOPS, both floral and faunal	214. Floral TOPS and large plant species (trees or bushes) are to be left in situ where possible 215. Floral species to be left on site must be appropriately marked and cordoned off to prevent damage 216. Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees 217. Permits must be in place if any plant TOPS will be removed, trimmed or relocated 218. Any TOPS which will be temporarily removed from site and planted back during rehabilitation must be protected in a suitable nursery

ASPECT	IMPACT	MANAGEMENT ACTIONS
		219. No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site 220. 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 221. No poisons are to be utilised on site
	Introduction/ proliferation of AIS	222. Any plant AIS noted on site must be removed 223. Disturbed soils must be monitored for colonisation of plant AIS 224. Plant AIS must be removed from disturbed soils before seeding and disposed of with general waste 225. 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
	Soil and groundwater contamination resulting from hydrocarbon leaks from concrete trucks and other construction machinery/ vehicles	226. Construction machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 227. 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 228. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used 229. Concrete trucks must be sourced from a reputable contractor who ensures that trucks are well-maintained to ensure that no preventable leakages occur 230. A drip tray is to be placed under any potentially leaking elements of concrete trucks while they unload concrete 231. 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 232. Drip trays must be in good condition (i.e. no holes and not bent or flattened)

ASPECT	IMPACT	MANAGEMENT ACTIONS
		233. All employees are to be trained in proper spill management techniques and drilled quarterly 234. Fully stocked spill kits must be available in strategic positions on site and inspected weekly to ensure they have all the required elements 235. 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 236. 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 237. Significant spills must be reported to GDARD 238. A record of all spills must be kept on site
	Soil and groundwater contamination from concrete/cement spills	239. 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) 240. 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) 241. Concrete and cement must be adequately contained and prevented from spilling onto bare soil areas or into the road
	Soil and groundwater contamination from other hazardous substance spills	242. All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area 243. Employees must be trained on appropriate hazardous substance management techniques 244. All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately 245. Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills

ASPECT	IMPACT	MANAGEMENT ACTIONS
		246. A record of all spills must be kept on site
	Surface water contamination from construction machinery/vehicle and concrete/cement spills	247. Adhere to the wetland and watercourse buffers 248. The proposed infrastructure should be relocated outside of the proposed buffers described in this assessment 249. Keep impact footprint as small as possible 250. Implement SWMP 251. Construct cut-off berms downslope of working areas, demarcate footprint areas to be cleared to avoid unnecessary clearing 252. Exposed areas must be ripped and vegetated to increase surface roughness 253. Temporary and permanent erosion control methods may include, gabion walls, mattresses and bars, silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed areas, erosion mats, and mulching
	Surface water contamination from other hazardous substance spills	254. No cleaning of vehicles, machines and equipment on site 255. All hazardous substances to be stored separately in appropriately bunded and demarcated facilities 256. No servicing of machines, vehicles and equipment on site 257. Storage of potential contaminants in bunded areas 258. All contractors must have spill kits available and be trained in the correct use thereof
	Surface water contamination through inadequate waste management (including ablutions)	259. Ablution facilities may not be placed within 50 m or the 1:50 year floodline. Whichever is furthest will apply. 260. Implement a waste management plan 261. Implement the SWMP

ASPECT	IMPACT	MANAGEMENT ACTIONS
		262. Appropriate sanitary facilities must be provided and all waste to be removed to an appropriate waste facility
	Impact on vehicular traffic from concrete truck movement	263. All operators and drivers must possess the appropriate driver's license 264. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 265. 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 266. Heavy machinery/vehicles should not be parked within the road or on the road verge
	Increase in emissions of greenhouse gases by construction machinery/vehicles	267. Construction machinery and vehicles should be kept to a minimal as far as practically possible 268. Use of car-pooling or public transport by employees must be encouraged 269. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Cement dust generation	270. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne cement dust 271. Dust screens should be erected around areas where raw cement (i.e. not wet concrete) is being utilised, where possible 272. Employees must be provided with appropriate dust masks to reduce inhalation of cement particles
	Noise generation	273. Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities 274. Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 275. Excessive noise from employees must be discouraged where possible

ASPECT	IMPACT	MANAGEMENT ACTIONS
		276. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	277. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents 278. Waste cement must be removed as building rubble, by a licensed contractor/service provider and disposed of at the nearest appropriately licensed facility 279. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 280. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 281. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams 282. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site 283. Waste bins should be periodically inspected to ensure they are not overflowing 284. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 285. Tips should be periodically serviced to ensure they do not overflow 286. Tips must be serviced by a licensed service provider 287. 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) 288. Volumes of waste removed must be monitored and reduced where possible 289. No waste may be buried or burned on site or anywhere else

ASPECT	IMPACT	MANAGEMENT ACTIONS
		290. 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
	Health and safety	291. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 292. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 293. Daily health and safety training must be undertaken to ensure employees remain vigilant 294. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 295. Unsafe work areas should be identified and marked as such 296. An Emergency Response Plan must be available on site at all times 297. Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site 298. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required 299. A fully stocked first aid kit must be available on site at all times 300. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times
Rehabilitation	Loss of topsoil	301. Topsoil which was stockpiled during vegetation stripping should be placed in areas where vegetation will be grown

ASPECT	IMPACT	MANAGEMENT ACTIONS
		302. Newly topsoiled areas should be revegetated as soon as possible, using indigenous (and endemic, if possible) plant species 303. Topsoil should be placed last, after subsoil layers have been replaced 304. 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
	Erosion of surrounding soil	305. The rehabilitated areas should blend into the surrounding vegetation so as to discourage erosion 306. The stormwater management plan must be properly implemented on site 307. 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
	Loss of TOPS, both floral and faunal	308. Floral species left on site must be appropriately marked and cordoned off to prevent damage during topsoiling and revegetation activities 309. Plant species left on site may not be used as fence posts or to hang bags, store waste or as latrines by employees 310. 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 311. No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site 312. 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 313. No poisons are to be utilised on site
	Introduction/ proliferation of AIS	314. Any plant AIS noted on site must be removed 315. Rehabilitated areas must be monitored for colonisation of plant AIS

ASPECT	IMPACT	MANAGEMENT ACTIONS
		316. Plant AIS must be removed before seeding and disposed of with general waste 317. 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
	Soil and groundwater contamination from hydrocarbon spills from rehabilitation machinery/ vehicles	318. Rehabilitation machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 319. 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 320. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used 321. 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 322. Drip trays must be in good condition (i.e. no holes and not bent or flattened) 323. All employees are to be trained in proper spill management techniques and drilled quarterly 324. Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements 325. 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 326. 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 327. Significant spills must be reported to GDARD 328. A record of all spills must be kept on site

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Soil and groundwater contamination from hazardous substance spills	329. All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area 330. Employees must be trained on appropriate hazardous substance management techniques 331. All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately 332. Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills 333. A record of all spills must be kept on site
	Impact on vehicular traffic from rehabilitation machinery/ vehicle movement	334. All operators and drivers must possess the appropriate driver's license 335. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 336. 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 337. Heavy machinery/vehicles should not be parked within the road or on the road verge
	Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles	338. Rehabilitation machinery and vehicles should be kept to a minimal as far as practically possible 339. Use of car-pooling or public transport by employees must be encouraged 340. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Dust generation	341. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust 342. Dust screens should be erected around working areas if and where practically possible 343. Employees must be provided with appropriate dust masks

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Noise generation	344. Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities 345. Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 346. Excessive noise from employees must be discouraged where possible 347. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	348. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents 349. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 350. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 351. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams 352. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site 353. Waste bins should be periodically inspected to ensure they are not overflowing 354. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 355. Tips should be periodically serviced to ensure they do not overflow 356. Tips must be serviced by a licensed service provider 357. 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
		licenced recycling depot and non-recyclable general waste must go to municipal landfill site) 358. Volumes of waste removed must be monitored and reduced where possible 359. No waste may be buried or burned on site or anywhere else 360. 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
	Health and safety impacts of rehabilitation team and surrounding land owners/users	361. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 362. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 363. Daily health and safety training must be undertaken to ensure employees remain vigilant 364. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 365. An Emergency Response Plan must be available on site at all times 366. Unsafe work areas should be identified and marked as such 367. Deep excavations must be cordoned off and marked as such 368. Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site 369. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required

ASPECT	IMPACT	MANAGEMENT ACTIONS
		370. A fully stocked first aid kit must be available on site at all times 371. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times
Emergencies/Incidents	Emergencies/Incidents could impact health and safety and/or the receiving environment.	372. All incidents and emergencies should be dealt with in line with the Emergency Response Plan for the site. 373. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times. 374. Environmental incidents must be reported timeously to the relevant regulator's Regional office; GDARD.
OPERATIONAL PHASE		
Environmental Awareness	Lack of awareness may result in environmental harm and/or non-compliance to the EMPr/EA	375. Comprehensive induction of all employees on site, including an environmental section which outlines as a minimum the following: o Explanation of the importance of complying with the EMPr o Discussion of the potential environmental impacts of development activities o Employees' roles and responsibilities, including emergency preparedness o Explanation of the mitigation measures that must be implemented when particular work groups carry out their respective activities o Importance of biodiversity 376. Daily safety talks should include environmental topics (at least one environmental topic per week) to increase general and site-specific environmental awareness
Monitoring of Compliance	Lack of monitoring may result in environmental harm and/or non-compliance to the EMPr/EA	377. The operation should be informally monitored on a continual basis by the Applicant's representative or Site Manager to ensure compliance to the EMPr 378. 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
Occupation of residential structures and use of service infrastructure	Erosion of surrounding soil	379. Areas susceptible to erosion (such as near smooth, hard surfaces) must be monitored 380. Where necessary, erosion protection measures or stormwater management measures must be adapted to reduce erosion around the site 381. Implementation of SWM plan to manage increasing impervious areas within the project site
	Soil and groundwater contamination from sewage leaks	382. Sewage leaks must be immediately reported and repaired so as to prevent long-term environmental harm 383. The sewage purification works must be efficiently operated by adequately trained personnel at all times and must, as far as is reasonably practicable, not be overloaded 384. The person or authority in charge of the purification works must satisfy himself that the quality of the final effluent will at all times be in accordance with the directives as set out in this guide 385. Regular control tests of representative final effluent samples must be made at least quarterly and records must be kept of such tests 386. The effluent reporting to the treatment plant originated from a potable source before biological contamination via bath, shower, basin and cleaning operations. The Effluent has no industrial or chemical contamination 387. No toxic substances are to be forwarded to the plant 388. No storm water will be forwarded to the plant 389. Oils and fats are to be treated at the source with fat traps before entering the plant 390. Normal kitchen and bathroom detergents should not be problematic in terms of plant operation

ASPECT	IMPACT	MANAGEMENT ACTIONS
		391. For typical domestic sewage treated in aerobic/anoxic reactor with de-nitrification (MLE process low alkalinity with pH instability) is normally not a problem. In the absence of alkalinity information, it is assumed that there will be adequate alkalinity in order to maintain a pH of 6.8 to 7.2 in the reactor 392. The plant must cope with daily variation in the flow rate from a maximum during the day to nearly zero during the night 393. The process design to include a 10% safety factor
	Waste generation	394. Waste must be appropriately managed by the municipality including timeous removal and disposal in appropriate waste disposal sites 395. Residents must be encouraged not to litter
	Edge effects of development on surrounding open spaces	396. Surrounding natural spaces must be protected as far as possible by measures such as: o Prevention of illegal dumping o Provision of designated pathways
	Invasion/ proliferation of alien invasive species	397. Plant AIS must be removed before seeding to prevent uncontrolled spread into surrounding natural areas 398. Animal AIS may not be controlled with poison but should be prevented from proliferating through appropriate waste management techniques or controlled using biocontrol methods
Use of roads	Soil and groundwater contamination from vehicle oil spills	399. All vehicle repairs and services must take place on sealed surfaces
	Impact on vehicular traffic	400. Roads must be appropriately marked and signposted to avoid confusion 401. Roads should be appropriately developed to help reduce congestion as far as possible 402. Consider surfacing road 403. Use dust-minimising (surface wetting) procedures on access road

ASPECT	IMPACT	MANAGEMENT ACTIONS
		404. Restrict construction activity to the footprint area only 405. Control vehicle speeds, by providing speed limits (40hm/h in general areas and 20km/h in working areas) and placing temporary speed humps 406. Any instances of road mortalities (roadkill) must be recorded and reported to the ECO
	Waste generation	407. Roadside waste bins must be provided and emptied regularly 408. Residents must be encouraged not to litter
Stormwater Management	Soil and groundwater contamination from improper management of effluent	409. The Stormwater Management Plan must be correctly implemented on site and must be adapted where necessary to site conditions 410. Stormwater must be channelled into a properly constructed drainage system 411. Drains must be regularly inspected for a build up of debris (e.g. litter or leaves) and appropriately cleared 412. No fuels must be allowed to discharge directly into stormwater pipes, drains, sewage manholes/pipes
Emergencies/Incidents	Incidents/Emergencies could impact health and safety or the environment	413. All incidents and emergencies should be dealt with in line with the Emergency Response Plan for the site 414. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times 415. Environmental incidents must be reported to GDARD
DECOMMISSIONING PHASE		
Demolition of residential space and decommissioning of service infrastructure	Loss of housing	416. Alternative options must be in place to provide safe housing for displaced residents
	Soil and groundwater contamination resulting from hydrocarbon leaks from demolition machinery/equipment	417. Demolition machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 418. No servicing of machinery/equipment take place on site

ASPECT	IMPACT	MANAGEMENT ACTIONS
		419. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used 420. 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 421. Drip trays must be in good condition (i.e. no holes and not bent or flattened) 422. All employees are to be trained in proper spill management techniques and drilled quarterly 423. Fully stocked spill kits must be available in strategic positions on site and inspected weekly to ensure they have all the required elements 424. 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 425. 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 426. Significant spills must be reported to GDARD
	Impact on vehicular traffic from movement of demolition machinery	427. All operators and drivers must possess the appropriate driver's license 428. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 429. 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 430. Heavy machinery/vehicles should not be parked within the road or on the road verge

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles	431. Demolition machinery and vehicles should be kept to a minimal as far as practically possible 432. Use of car-pooling or public transport by employees must be encouraged 433. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Dust generation	434. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised to reduce airborne dust 435. Dust screens should be erected around working areas if and where practically possible 436. Employees must be provided with appropriate dust masks
	Noise generation	437. Notices must be erected prior to demolition, forewarning residents of activities 438. Demolition must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 439. Excessive noise from employees must be discouraged where possible 440. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	441. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents 442. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 443. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 444. The reuse/recycling of building rubble must be explored and undertaken where possible

ASPECT	IMPACT	MANAGEMENT ACTIONS
		445. Non-reusable or recyclable building rubble must be removed by a licensed contractor/service provider and disposed of at the nearest appropriately licensed facility 446. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams 447. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site 448. Waste bins should be periodically inspected to ensure they are not overflowing 449. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 450. Tips should be periodically serviced to ensure they do not overflow 451. Tips must be serviced by a licensed service provider 452. 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) 453. Volumes of waste removed must be monitored and reduced where possible 454. No waste may be buried or burned on site or anywhere else 455. 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

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Health and safety of construction workers	456. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 457. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 458. Daily health and safety training must be undertaken to ensure employees remain vigilant 459. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 460. An Emergency Response Plan must be available on site at all times 461. Unsafe work areas should be identified and marked as such 462. MSDSs for any hazardous substances are to be readily available on site 463. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area 464. A fully stocked first aid kit must be available on site at all times 465. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times
Rehabilitation	Loss of topsoil	466. Newly topsoiled areas should be revegetated as soon as possible, using indigenous (and endemic, if possible) plant species 467. Topsoil should be placed last, after subsoil layers have been replaced 468. 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
	Erosion of surrounding soil	469. The rehabilitated areas should blend into the surrounding vegetation so as to discourage erosion

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Loss of TOPS, both floral and faunal	470. Floral species on site must be appropriately marked and cordoned off to prevent damage during topsoiling and revegetation activities 471. Plant species on site may not be used as fence posts or to hang bags, store waste or as latrines by employees 472. No hunting, poaching, fishing, or any other harm to animals by employees is permitted on or around site 473. 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 474. No poisons are to be utilised on site
	Introduction/ proliferation of AIS	475. Any plant AIS noted on site must be removed 476. Rehabilitated areas must be monitored for colonisation of plant AIS 477. Plant AIS must be removed before seeding and disposed of with general waste 478. 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
	Soil and groundwater contamination from hydrocarbon spills from rehabilitation machinery/ vehicles	479. Rehabilitation machinery and equipment must be inspected weekly by the operator and maintained/serviced regularly to ensure that no preventable leakages occur 480. 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 481. In case of emergency repairs, machinery/equipment must be placed on an impermeable surface and drip trays are to be used 482. 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 483. Drip trays must be in good condition (i.e. no holes and not bent or flattened) 484. All employees are to be trained in proper spill management techniques and drilled quarterly

ASPECT	IMPACT	MANAGEMENT ACTIONS
		485. Fully stocked spill kits must be available in all working areas on site and inspected weekly to ensure they have all the required elements 486. 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 487. 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 488. Significant spills must be reported to GDARD 489. A record of all spills must be kept on site
	Soil and groundwater contamination from hazardous substance spills	490. All hazardous substances (including hydrocarbons) must be stored in labelled and sealed containers, within a labelled, protected and bunded area 491. Employees must be trained on appropriate hazardous substance management techniques 492. All hazardous substances utilised or stored on site must be accompanied by an MSDS and employees must be trained in using these documents appropriately 493. Hazardous substance spills are to be dealt with in the same manner as hydrocarbon spills 494. A record of all spills must be kept on site
	Impact on vehicular traffic from rehabilitation machinery/ vehicle movement	495. All operators and drivers must possess the appropriate driver's license 496. Appropriate signage must be placed on the roads around the site to ensure that road users are made aware of construction activities 497. 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 498. Heavy machinery/vehicles should not be parked within the road or on the road verge

ASPECT	IMPACT	MANAGEMENT ACTIONS
	Increase in emissions of greenhouse gases by rehabilitation machinery/vehicles	499. Rehabilitation machinery and vehicles should be kept to a minimal as far as practically possible 500. Use of car-pooling or public transport by employees must be encouraged 501. Volumes of petrol and diesel usage should be recorded in order to report on emission data
	Dust generation	502. Dust suppression/surface wetting mechanisms (such as use of a water bowser) must be utilised daily to reduce airborne dust 503. Dust screens should be erected around working areas if and where practically possible 504. Employees must be provided with appropriate dust masks
	Noise generation	505. Notices must be erected prior to construction, forewarning surrounding land owners/users of construction activities 506. Construction must only take place during working hours (i.e. 07h00 to 17h00 on weekdays and 07h00 to 13h00 on Saturdays) 507. Excessive noise from employees must be discouraged where possible 508. Employees must be provided with ear plugs for use when they are in close proximity to noisy machinery
	Waste generation	509. A Waste Management Plan must be developed and implemented on site, and all employees must be trained on its contents 510. Employees must be trained in good housekeeping practices and site must be regularly inspected for state of housekeeping 511. Reduction, reuse, and recycling of waste should be prioritised in that order, before disposal 512. Waste must be separated into general recyclable, general non-recyclable, hazardous and building waste streams

ASPECT	IMPACT	MANAGEMENT ACTIONS
		513. An appropriate number of separated, labelled and sealed waste bins must be provided in all working areas of site 514. Waste bins should be periodically inspected to ensure they are not overflowing 515. When waste bins are full, waste should be disposed of in appropriately separated, labelled tips 516. Tips should be periodically serviced to ensure they do not overflow 517. Tips must be serviced by a licensed service provider 518. 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) 519. Volumes of waste removed must be monitored and reduced where possible 520. No waste may be buried or burned on site or anywhere else 521. 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
	Health and safety impacts of rehabilitation team and surrounding land owners/users	522. All relevant Health and Safety legislation should be strictly adhered to, including but not limited to OSHA 523. Employees, contractors and visitors must undergo induction training on general site safety as well as the Emergency Response Plan 524. Daily health and safety training must be undertaken to ensure employees remain vigilant

ASPECT	IMPACT	MANAGEMENT ACTIONS
		525. Employees must be provided with the necessary Personal Protective Equipment (PPE)- hard hat, safety boots, overalls, safety goggles, dust masks, ear plugs and gloves 526. An Emergency Response Plan must be available on site at all times 527. Unsafe work areas should be identified and marked as such 528. Deep excavations must be cordoned off and marked as such 529. Material Safety Data Sheets (MSDS) for any hazardous substances are to be readily available on site 530. Hazardous substances are to be appropriately contained within functional, labelled containers and stored in a bunded area if required 531. A fully stocked first aid kit must be available on site at all times 532. A list of emergency contacts, including details of a nearby snake handler, must be kept on site at all times

5 CONCLUSION

This EMP contains practical mitigation measures for all activities that will occur as part of the GRLRP for Unitas Park – Extension 16. Should the mitigation measures provided within this EMP be implemented effectively, GCS is of the opinion that no significant environmental or social impacts will be generated. In signing this EMP, Phumaf accepts responsibility to ensure the measures outlined above are implemented.

APPENDIX A
EAP CV

APPENDIX B
Generic Method Statement