

**ENVIRONMENTAL IMPACT ASSESSMENT
FINAL SCOPING REPORT**

PROPOSED MOHLAKENG EXTENSION 17 TOWNSHIP ESTABLISHMENT ON A PORTION OF REMAINING EXTENT OF PORTION 83 OF THE FARM MIDDELVLEI 255-IQ, A PORTION OF REMAINING EXTENT OF PORTION 136 OF THE FARM LUIPAARDSVLEI 243-IQ AND PORTION 68 OF THE FARM LUIPAARDSVLEI 243-IQ, WITHIN THE JURISDICTION OF THE RAND WEST CITY LOCAL MUNICIPALITY.

GDARD Reference Number: 002/20-21/E2723

Prepared by	Prepared for
	
<p>MGTD ENVIRONMENTAL CC</p> <p>Physical Address: Unit 65 Fish Eagle, 81 Vorster Avenue, Glenanda, 2091</p> <p>Contact Person: Thobile Duma</p> <p>Cell Number: 083 328 0989</p> <p>E-mail: tduma@mgtდenvironmental/mgtdcc@gmail.com</p>	<p>ZENAWE CONSULTING</p> <p>Physical Address: 18 Baobab Street, Noordwyk, Midrand, 1985</p> <p>Contact Person: Martin Zwane/Siphiwe Hlatshwayo</p> <p>Tel Number: 011 318 0851</p> <p>Cell Number: 073 153 7892/062 398 2772</p> <p>E-mail: martin@zenawe.co.za</p>

Report status: Draft Scoping Report

Report revision: 0

Report date: December 2020

All rights to the intellectual property and/or contents of this document remain vested in the MGTD Environmental. This document is issued for the sole purpose for which it is supplied. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by means electronic, mechanical, photocopying, recording or otherwise without the express written permission of the MGTD Environmental.

DECLARATION OF THE EAP

I, **Thobile Duma**, acting as independent Environmental Practitioner on this project, declare that:

I act as the independent environmental practitioner in this application

- 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 National Environmental Management Act (107 of 1998), the Environmental Impact Assessment Regulations of 2014, and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- 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 and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties 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
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014 as amended.

Signature of the environmental practitioner:



Name of company: MGTD Environmental

EXECUTIVE SUMMARY

Introduction

Zenawe Consulting on behalf of the Rand West City Local Municipality proposes to develop Low-cost Mixed-Use Housing Development on the remainder of Portion 83 of the farm Middelvlei 255 IQ, remaining extent of Portion 136 of the farm Luipaardsvlei 243 IQ and Portion 68 of the farm Luipaardsvlei 243 IQ, the Rand West City Local Municipality (RWCLM), ward 13, 14, 19, 20 and 33. The site is strategically located along R559 between the township areas of Mohlakeng and Toekomsrus, 2 000 social housing units are being built along the R 559 and the Umphakathi Mall.

The proposed development will offer affordable housing as well as other amenities and facilities such as open parks and schools. Services and Infrastructure that will be installed include provision of sewage, water, electricity, storm water management and roads.

Need for the Project

It is estimated that +-22000 families in the Rand West City Local Municipality (RWCLM) do not have adequate access to formal houses (RWCLM Annual Report 2018/2019). Given the high unemployment rate, the situation is likely to worsen. To address these backlogs effectively the municipality needs to deliver approximately 5000 housing opportunities per annum for the next (5) years. Another contributing factor to the slow delivery is the scarcity of suitable land for development. Therefore, the current delivery rate is estimated at \pm 500 housing opportunities per annum.

The five key challenges regarding the provision of housing facing the municipality include:

- The ever-increasing housing backlog due to the demand exceeding supply;
- Dolomite nature of the area /scarcity of suitable land for housing development, the fragmented urban landscape remains largely unchanged, with new housing developments generally located on the Land ownership;
- (Large portions of land identified to cater for future housing development are owned by private bodies – Mining Houses);
- Insufficient capacity of the existing infrastructure to accommodate the new and future housing programs; and
- The municipality's periphery, far from work opportunities, amenities and facilities.

Legal Requirement

In terms of the 2014 EIA Regulations published under Section 24(5) read with Sections 24, 24D and 44 of NEMA, the proposed project potentially triggers activities in Listing Notices 1, 2 and 3 (GNR 327, GNR 325 and GNR 324 respectively). Therefore, the project may not commence without environmental authorisation from the relevant competent authority, in this case, the Gauteng Province Department of Agriculture

and Rural Development (GDARD). The application for environmental authorisation requires a process of Scoping and EIA as outlined in GNR 326 (April 2017).

Overview of the EIA Application Process

The environmental assessment process will be undertaken in two phases namely:

- **Environmental Scoping Process** which includes the notification of the process and commissioning of specialists' studies. This report details the outcome of this process; and
- **The Environmental Impact Assessment phase** resulting in the EIAR as well as an Environmental Management Programme (EMPr). The EMPr will be compiled based on the findings of the Environmental Impact Assessment and will provide mitigation and management measures for the planning and construction phase of the proposed project. The EIAR will present findings of the EIA, describe the proposed activity and affected environment, forecast the significant impacts likely to result from the implementation of the activity; evaluate alternatives; and identify and evaluate the effectiveness of mitigation measures. The draft EIAR will be made available to registered I&APs, including the competent authority to review and comment for a period of 30 days. Once the comments have been collated, responded to and integrated into the final EIAR the report will be submitted to GDARD for consideration and decision-making.

Final Scoping Report

This Final scoping report presents the results of the scoping process as part of the Environmental Impact Assessment for the proposed Low-cost mixed-use development. The report has been compiled to determine the range of positive and negative environmental, economic and social issues to be considered during the EIA Process. This Final Scoping Report, therefore, serves as the documentation in support of a scoping level of study as part of the Environmental Impact Assessment process being carried out for the proposed development.

The purpose of the Scoping Process, as the first phase of the Environmental Impact Assessment (EIA) process includes but not limited to the following:

- 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.
- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process.
- Identify and confirm the preferred site, through a detailed site selection process, which includes 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, 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 impact to inform the location of the development footprint within the preferred site; 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
Copies of the full report will be available on the MGTD Environmental website for period of 30 days.

Comments and input received on the draft Scoping Report and the Public Participation Process have been considered and included into this Final Scoping Report to be submitted to the decision-making authority GDARD.

ADHERENCE TO REGULATORY REQUIREMENTS, REGULATION NO R. 326 PUBLISHED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (AS AMENDED)

CONTENT OF SCOPING REPORT AS PER THE 2014 EIA REGULATIONS (APPENDIX 2)		RELEVANT SECTION WITHIN THE SCOPING REPORT
(a)	Details of:	-
	(i) the EAP who prepared the report; and	Section 1.5
	(ii) the expertise of the EAP, including a curriculum vitae;	Section 1.5 and Appendix 1
(b)	The location of the activity, including:	-
	(i) the 21-digit Surveyor General code of each cadastral land parcel;	Section 1.6
	(ii) where available, the physical address and farm name;	Section 1.6
	(iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section 1.6
(c)	A plan which locates the 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	N/A
	(ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;	Section 1.6
(d)	A description of the scope of the proposed activity, including:	Section 2.1 to 2.3
	(i) all listed and specified activities triggered;	Section 2, Table 4
	(ii) a description of the activities to be undertaken, including associated structures and infrastructure;	Section 2.1-2.3
(e)	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 4
(f)	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 2.4

CONTENT OF SCOPING REPORT AS PER THE 2014 EIA REGULATIONS (APPENDIX 2)		RELEVANT SECTION WITHIN THE SCOPING REPORT
<u>(a)</u>	A full description of the process followed to reach the proposed preferred activity, site and location <u>of the development footprint</u> within the site, including-	Section 3
	(i) details of all the alternatives considered;	Section 3.1 -3.3
	(ii) details of the PPP undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section 7 and Appendix 2
	(iii) a summary of the issues raised by I&APs, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	Section 7 and Appendix 2
	(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 5
	(v) the impacts and risks <u>which have informed the identification of</u> each alternative, including the nature, significance, consequence, extent, duration and probability of <u>such identified</u> 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;	Section 6
	(vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	Section 6
	(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;	Section 8.1
	(viii) the possible mitigation measures that could be applied and level of residual risk;	Mitigation measures not included in DSR
	(ix) the outcome of the site selection matrix;	N/A
	(x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and	Not Applicable alternatives were considered
	(xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;	Section 3
<u>(h)</u>	A of plan of study for undertaking the environmental impact assessment process, including:	Section 8

CONTENT OF SCOPING REPORT AS PER THE 2014 EIA REGULATIONS (APPENDIX 2)		RELEVANT SECTION WITHIN THE SCOPING REPORT
	(i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;	Section 3
	(ii) A description of the aspects to be assessed as part of the EIA process;	Section 8
	(iii) Aspects to be assessed by specialists;	Section 8
	(iv) A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;	Section 8
	(v) A description of the proposed method of assessing duration and significance;	Section 6
	(vi) An indication of the stages at which the competent authority will be consulted;	Table 8
	(vii) Particulars of the PPP that will be conducted during the EIA process;	Section 7
	(viii) A description of the tasks that will be undertaken as part of the EIA process;	Section 8.2
	(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.	Not Applicable this will take place during the Impact Assessment phase of the EIA
(i)	An undertaking under oath or affirmation by the EAP in relation to:	Page 3
	(i) the correctness of the information provided in the report;	Page 3
	(ii) the inclusion of comments and inputs from stakeholders and I&APs;	Page 3
	(iii) any information provided by the EAP to I&APs and any responses by the EAP to comments or inputs made by I&APs;	Page 3
(ii)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and I&APs on the plan of study for undertaking the EIA;	Page 3
(k)	Where applicable, any specific information required by the competent authority; and	Not currently applicable
(l)	Any other matter required in terms of section 24(4)(a) and (b) of the Act.	Not currently applicable

RELEVANT SECTIONS OF THE PUBLIC PARTICIPATION PROCESS AS PER THE 2014 EIA REGULATION (CHAPTER 6)		RELEVANT SECTIONS WITHIN THE SCOPING REPORT
41.1	This regulation only applies in instances where adherence to the provisions of this regulation is specifically required	Acknowledged and adhered to within Scoping Report
41.2	The person conducting a PPP must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by:	Section 7.4
a	Fixing a notice board at a place conspicuous to the public at the (i) site and (ii) alternative sites	Appendix 2
b	Giving written notice to (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land; ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken; iii) owners and occupiers of land adjacent to the site or alternative sites; iv) the municipal councilor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area; v) the municipality which has jurisdiction in the area; vi) organ of state having jurisdiction and vii) any other party as required by the competent authority	Appendix 2
c	Placing an advertisement in (i) one local newspaper or (ii) official gazette that is published for the purpose of providing public notice	Appendix 2
d	Placing an advertisement in at least one provincial newspaper or national newspaper (if the activity impacts extend beyond boundaries of a metro or local municipality)	Appendix 2
e	Using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person desires but is unable to participate in the process due to i) illiteracy; (ii) disability; or (iii) any other disadvantage	Appendix 2
41.3	A notice, notice board or advertisement referred to above must:	
a	Give details of the application which is subject to PPP	Appendix 2
b	State (i) application has been or is to be submitted to the authority in terms of these Regulations (ii) whether a basic assessment or scoping being applied (iii) nature and location of activity (iv) where further information can be obtained (v) manner in which and person to whom representations can be made	Appendix 2
41.4	A notice board must be (a) 60 cm by 42 cm (b) display the required information in lettering and format determined by authority	Appendix 2
41.7	Person conducting PPP must ensure that (a) information containing all relevant facts in respect of the application is made available to I&APs (b) participation by I&APs is facilitated to provide all with a reasonable opportunity to comment	Appendix 2
42.1	The Applicant or EAP must open and maintain a register with details of:	
a	Persons who have submitted written comment or attended meetings	Appendix 2
b	Persons who have requested to be registered as I&APs	Appendix 2
c	All organs of state which have jurisdiction	Appendix 2

RELEVANT SECTIONS OF THE PUBLIC PARTICIPATION PROCESS AS PER THE 2014 EIA REGULATION (CHAPTER 6)		RELEVANT SECTIONS WITHIN THE SCOPING REPORT
43.1	EAP must give access to the register to any persons who requests this in writing	Appendix 2
44.1	EAP must ensure that comments of I&APs are recorded in reports submitted to the authority (provided that comments may be attached to the report without recording in report itself)	Appendix 2
44.2	Where a person is desiring but unable to access written comments as contemplated in sub regulation (1) due to (i) a lack of skills to read or write, (ii) disability; or (iii) any other disadvantage reasonable alternative methods of recording comments must be provided for	N/A in this process to date.

Contents

DECLARATION OF THE EAP	2
EXECUTIVE SUMMARY.....	3
ADHERENCE TO REGULATORY REQUIREMENTS, REGULATION NO R. 326 PUBLISHED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (AS AMENDED)	6
GLOSSARY OF TERMS	16
ABBREVIATIONS.....	18
1. INTRODUCTION	19
1.1 Context and Background.....	19
1.2 Location of the proposed activity	20
1.3 Adjacent Developments	21
1.4 Applicant Details.....	23
1.5 Details of Environmental Assessment Practitioner (EAP)	23
1.6 Property Details	25
1.7 Environmental Impact Assessment Process	25
2 DESCRIPTION OF THE PROPOSED ACTIVITY	27
2.1 Scope of Activities	27
2.2 Infrastructure Services	27
2.3 Activities Applied for in terms of NEMA.....	29
2.4 Need and desirability.....	31
2.4.1 Provincial Context	31
2.4.2 Municipal Context	31
3 DESCRIPTION OF ALTERNATIVES	33
3.1 Site alternatives	33
3.2 Activity alternatives.....	34
3.3 Design or Layout alternatives.....	34
3.4 Technology alternatives	34
3.5 Status quo / No-go alternatives.....	35
4. LEGAL REQUIREMENTS OF THE PROPOSED DEVELOPMENT	36
4.1 The Constitution of the Republic of South Africa, 1996 (Act 108 of 1996)	36

4.2 National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended.....	36
4.3 Directions regarding measures to address, prevent and combat the spread of COVID-19 relating to National Environmental Management Permits and Licences (Government Gazette Notice: GN 650 in GG 43412 on 5 June 2020)	37
4.4 The National Water Act (Act No 36 of 1998)	37
4.5 National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008, as amended)	38
4.6 The National Environmental Management: Biodiversity Act (Act 10 of 2004)	38
4.7 National Environmental Management: Air Quality Act, 39 Of 2004 And Relevant Regulations	39
4.8 National Heritage Resources Act (No. 25 of 1999)	39
4.9 National Building Regulations and Building Standards Act (Act No. 103 of 1997)	40
4.10 Occupational Health & Safety Act (OHSA), 1993 (Act No 85 of 1993)	41
4.11 National Environmental Management Protected Areas Act, 2003 (Act No. 57 of 2003, as amended)	41
4.12 Spatial Planning and Land User Management Act, 2013 (Act No. 16 of 2013) [SPLUMA]	41
4.13 Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001, as amended)	42
4.14 Other policies, plans and guideline documents.....	42
4.14.1 West Rand Draft EMF, 2013	42
4.14. 2 The West Rand District Municipality Spatial Development Framework (SDF) (2014).....	43
4.14.3 Rand West City Local Municipality IDP, 2020/2021	43
4.14.4 Gauteng Conservation Plan (C-Plan) Version 3.3.....	43
4.14.5 Gauteng Noise Control Regulations	44
4.14.6 GDARD Buffer Zone Guidelines 2017.....	44
4.14.7 DWA Dolomite guidelines 2009 Final.....	45
4.14.7 Appropriate Development of Infrastructure on Dolomite:	45
Guidelines for Consultants.....	45
4.14.8 SANS 1936-1: Development of dolomite land — Part 1: General principles and requirements	45
5 DESCRIPTION OF THE RECEIVING ENVIRONMENT.....	46
5.1 PHYSICAL ENVIRONMENT	46
5.1.1 Access.....	46

5.1.2 Climate	46
5.1.2 Topography	46
5.1.3 Geology and Soils.....	47
5.1.4 Hydrological Features.....	48
5.1.5 Land Use	50
5.2 Biological Environment	53
5.2.1 Vegetation.....	53
5.2.2 Fauna	53
5.2.3 Biodiversity Features	53
5.2.4 Protected Areas	54
5.3 Socio-economic Environment.....	54
5.3.1 Demographic profile	55
5.3.2 Local Economic Profile.....	55
5.3.3 Employment/Unemployment and Poverty	55
5.3.4 Economically Active Population	56
5.3.5 Unemployment Rate.....	56
5.3.6 Safety & Security	57
5.3.7 Health.....	58
5.3.8 Agricultural Potential.....	58
5.3.9 Noise	58
5.3.9 Air Quality.....	59
5.3.10 Heritage.....	59
6. IMPACT ASSESSMENT METHODOLOGY AND ASSESSMENT OF IMPACTS	61
6.1 Environmental issues and Potential impacts	63
6.1.1 Vegetation Assessment.....	63
6.1.2 Freshwater.....	64
6.1.3 Heritage	64
6.1.4 Other Issues Identified.....	65
7. PUBLIC PARTICIPATION PROCESS.....	66
7.1 Identification and registration of Interested and Affected Parties	67
7.2 Project announcement.....	67
7.3 Obtaining and dealing with comments from I&Aps	68
7.4 Comments and Responses Report	68

7.5	Circulation of the Draft Scoping Report for public review and comment	69
7.6	Notification of submission of the Final Scoping Report	69
8.	PLAN OF STUDY FOR EIA	70
8.1	Key issues and impacts identified during the Scoping Process	70
8.2	Activities to be undertaken during the EIA Process	71
8.2.1	Public Participation Process	71
8.2.2	Specialists Studies Identified	71
8.2.3	Assessment of Environmental Issues and Alternatives	72
8.2.4	Consultation with authorities	72
8.2.5	Compilation of the Environmental Impact Report	73
8.2.6	Environmental Management Plan (EMP)	73
8.2.7	Programme for Assessment Phase	73
9.	CONCLUSION	75
10.	REFERENCES	76

List of Tables
Table 1: Details of the EAP
Table 2: 21 Digit Surveyor General Code
Table 3: Proposed Land Use
Table 4: EIA Listed Activities
Table 5: Economically Active Population
Table 6: Unemployment Rate
Table 7: Proposed Development Phases
Table 8: Key dates for involvement of the authorities
Table 9: Programme for Assessment Phase

List of Figures
Figure 1: Locality Plan
Figure 2: Umphakathi Mall Site
Figure 3: Montrose Mega Development site boundaries
Figure 4: EIA Process
Figure 5: Topography
Figure 6: Geology
Figure 7: Hydrology
Figure 8: Land Cover
Figure 9: Land Use Activities within and surrounding the site
Figure 10: Critical Biodiversity Areas
Figure 11: High Agricultural Potential land on site

List of Appendices
Appendix 1: EAP CVs
Appendix 2: Public Participation Documents
Appendix 3: Concept Masterplan Developable Areas

GLOSSARY OF TERMS

"Activity" means an activity identified in Government Notice Number R718 of 2009, and GNR. 324, R. 325, and R. 327, of 2017 as a listed activity.

"Alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to property, activity, design or technology.

"Applicant" means a person who has submitted or intends to submit an application.

"Application" means an application for Environmental Authorization in terms of the EIA regulations, 2014 (as amended).

"Associated Infrastructure," means any building or infrastructure that is necessary for the functioning of a facility or activity or that is used for an ancillary service or use from the facility.

"Biodiversity" The variety of life occurring in an area, including the number of different species, the genetic wealth within each species, and the natural habitat where they are found.

"Buffer Zone"

Buffer zone in terms of the 2017 GDARD buffer zone guidelines 2017 refers to an area of land required to filter out the deleterious effects of the of the pollution source that is buffered (based on current understanding of the pollution type and mode of dispersal).

"Cultural significance" This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

"Cumulative impact" in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

"Environmental Impact Assessment" in relation to an application to which scoping must be applied, means the process of collecting, organizing, analysing, interpreting and communicating information that is relevant to the consideration of that application.

"Environment" The environment has been defined as "The external circumstances, conditions and objects that affect the existence and development of an individual, organism or group". These circumstances include biophysical, social, economic, historical, cultural and political aspects.

"Environmental Assessment Practitioner" Person or company, independent of the applicant (developer), that manages the environmental assessment process of a proposed project on behalf of the applicant.

"Environmental Impact Report" In-depth assessment of impacts associated with a proposed development. This forms the second phase of an Environmental Impact

Assessment and follows on from the Scoping Report.

"Heritage resources" This means any place or object of cultural significance. It also includes archaeological resources.

"Interested and Affected Party" means an interested and affected party contemplated in section 24(4) (d) of the Act, and which in terms of that section includes -

- (a) Any person, group of persons or organization interested in or affected by an activity; and
- (b) Any organ of state that may have jurisdiction over any aspect of the activity

"Public Participation Process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters; "Registered Interested and Affected Party", in relation to an application, means an interested and affected party whose name is recorded in the register opened for that application in terms of regulation 42.

"Species of Conservation Concern" All those species included in the categories of endangered, vulnerable or rare, as defined by the International Union for the Conservation of Nature and Natural Resources.

"Significant impact" means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the Environment.

"The Act" means the National Environmental Management: Waste Act, 1998 (Act No.59 of 2008).

ABBREVIATIONS

- "BID" Background Information Document"
- "DWS" Department of Water Sanitation
- "EAP" Environmental Assessment Practitioner
- "EIA" Environmental Impact Assessment
- "EIR" Environmental Impact Report
- "EMP" Environmental Management Plan
- "GDARD" Gauteng Department of Agriculture and Rural Development
- "GDOH" Gauteng Department of Housing
- "GN" Government Notice
- "I& APs" Interested and/or Affected Parties
- "NEMA" National Environmental Management Act (107 of 1998)
- "NWA" National Water Act
- "PHRA" Provincial Heritage Resources Agency
- "PPP" Public Participation Process
- "RSDF" Regional Spatial development Framework
- "SAHRA" South African Heritage Resources Agency
- "SDF" Spatial Development Framework

1. INTRODUCTION

This document presents the results for the scoping process as required by the EIA regulations. The document also outlines the methodology of the tasks to be performed by the consultant in order to prepare the Environmental Impact Assessment Report. The Scoping Report aims to provide information to stakeholders regarding the environmental issues and potential impacts identified related to the proposed development. The information contained in the Scoping Report will enable the relevant authorities to make an informed decision concerning the proposed project.

This section provides some background information pertaining to the proposed activity, details of the applicant, environmental consultant and maps out the application process required to obtain authorisation for the proposed activity.

1.1 Context and Background

The Constitution commits government to take reasonable measures, within its available resources, to ensure that all South Africans have access to adequate housing, health care, education, food, water and social security.

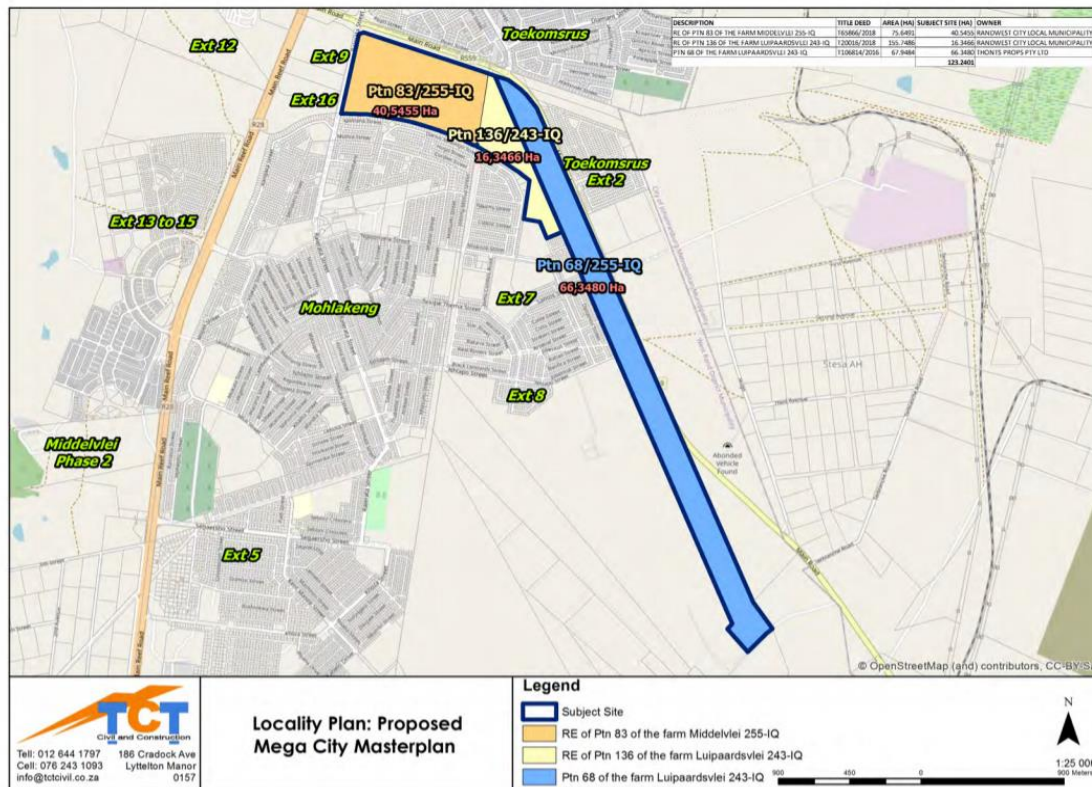
The applicant, Zenawe Consulting on behalf of TCT civics and Rand West City Local Municipality proposes to develop low cost mixed-use housing development comprising residential (Res 1 and Res 4), educational, open space and related uses (Figure 1). Construction will take place in three phases, with 5 000 units developed during each phase.

The final layout plan would be guided by the development constraints and opportunities presented by the site.

The application site is vacant and is located on the Remaining Extent of Portion 83 of the farm Middelvlei 255 IQ, Remaining Extent of Portion 136 of the farm Luipaardsvlei 243 IQ and Portion 68 of the farm Luipaardsvlei 243 IQ within Rand West City Local Municipality, Gauteng Province.

To manage the Environmental Impact Assessment (EIA) application process, the applicant appointed MGTD Environmental to obtain environmental authorisation in terms of section 24(2) and 24D of the National Environmental Management Act (Act 107 of 1998) as amended.

Figure 1: Locality Plan



1.2 Location of the proposed activity

The proposed site is located along R559 within the Rand West City Local Municipality (Figure 1). The following National and Provincial roads provide both regional mobility and accessibility to the site:

- The R28 which links Randfontein, Westonaria and Sedibeng LM in Gauteng (regional mobility and accessibility);
- The R559 which links Randfontein with Southern Soweto (regional mobility and accessibility);
- R41 which links Randfontein to Northwest (regional mobility and accessibility); and
- The N12 which links Westonaria to North West and Johannesburg/East Rand.
- The proposed PWV 16 traverses the site (Appendix C).

Rand West City Local Municipality is a Category B municipality situated within the borders of the West Rand District in the Gauteng Province. It is the smallest of three municipalities in the district, making up a third of its geographical area.

It was established by the amalgamation of the Randfontein and Westonaria Local Municipalities in August 2016. The municipality is characterised by dispersed urban structures consisting of various urban areas and mining villages spread across the entire

municipal area. The rural areas consist of a large number of farms, as well as agricultural holdings.

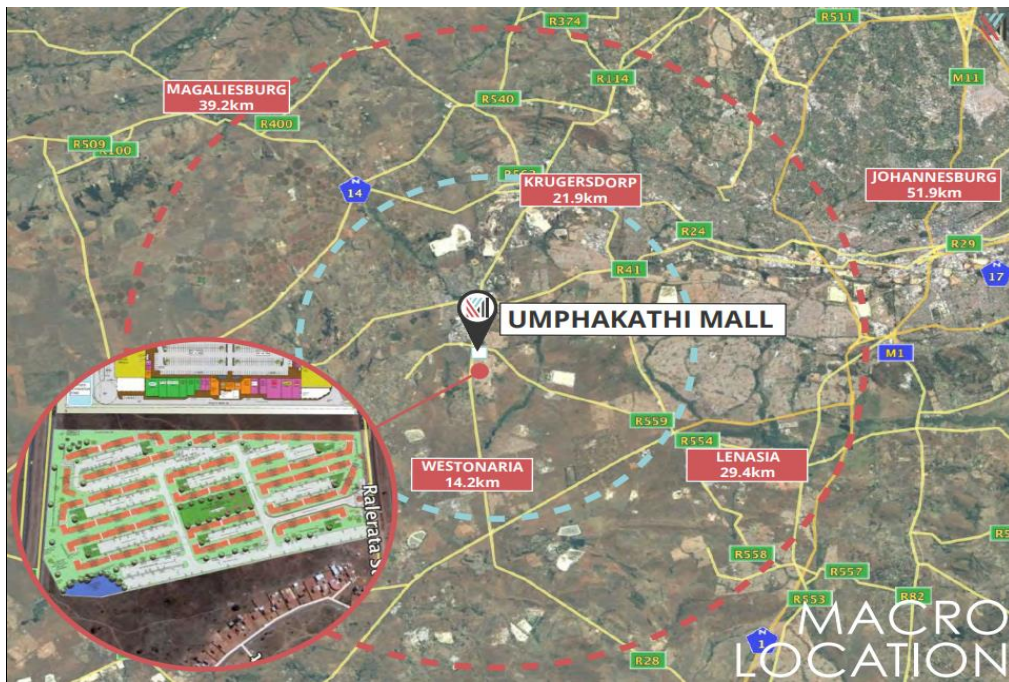
1.3 Adjacent Developments

The area immediately surrounding the subject property has seen several new developments (Figure 2 and 3) in the recent past (housing development, commercial, business and social infrastructure in the mix). Included in such developments are the following:

- **Montrose Mega Development;**
- **Umphakathi Mall;**
- **Umphakathi Square**
- **Mohlakeng Hostel Redevelopment**
 - o 11 blocks (56 units) of flats completed and allocated
- **Mohlakeng Extension 11 Phase 3 (291 units- Established on Remaining Extent of Portion 1, Portions 33 and 37 (Portions of Portion 1) of the farm Middelvlei 255 IQ, Randfontein)**
 - o Officially registered as Mohlakeng Extension 13, 14 and 15 after the township was phased
 - o 570 units constructed and allocated as part of Phase 1 (Extension 13)
 - o 413 houses completed and allocated as part of Phase 2
 - o 291 units outstanding
- **Mohlakeng Two rooms (90 units)**
 - o RWCLM availed 90 erven for the relocation of the two families living in one house
 - o To date 33 houses completed and allocated
 - o Remainder of the 57 houses were planned completed by end of March 2017
- **Badirile Phase 2 (Informal settlement on Portion 18 of Farm Brandvlei 261 IQ)**
 - o 400 houses completed and allocated as part of phase 1
 - o 292 houses completed and allocated as part of Phase 2
 - o New Community Hall constructed and donated to the community of Badirile by the Contractor
- **Badirile Portion 18 (Siyahlalala)**
 - o Township Establishment undertaken and duly approved by Council
- **Phomolong (Erf 3864 Mohlakeng-200 units)**
- **Wheatlands (Remaining extent of Farm Wheatlands 260 IQ – 1400 units)**
- **Mohlakeng Ext 5 (Erven 8718 and 9226 Mohlakeng, Ext. 5-320 units)**
- **Finbury Place Haven (Erven 2206 & 2207, Finsbury, Randfontein +/-1000 social housing units)**
- **Jabulani Informal Settlement (Informal settlement on Portion 14 Of the Farm Elandsvlei 249 IQ, Randfontein)**
- **Afri-Village**

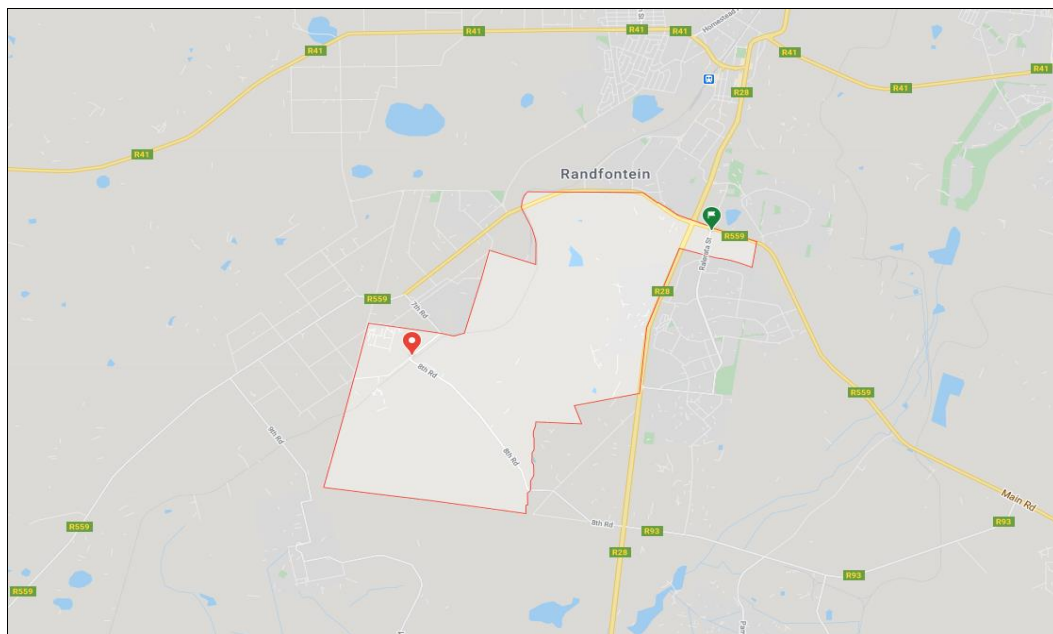
One of the key Mega Developments within the Municipality in close proximity to the site includes the proposed Montrose Mega Project situated on Portion 80 and 81 of land portion 6 of Middelvlei farm 255 IQ which is 131 hectares and Remainder of portion 6 of land farm Middelvlei 255 IQ which is 387 hectares which will consist of 13 000 housing units (Figure 3). SCM Properties and Developments (PTY) LTD has valid sole exclusive land availability agreements on all the properties.

Figure 2: Umphakathi Mall Site



Source: Ancora

Figure 3: Montrose Mega Development site boundaries



1.4 Applicant Details

Aspect	Details
Applicant	TCT Civils
Physical Address	18 Baobab Street, Noordwyk, Midrand, 1985
Representative	Mr Martin Zwane
Contact Details	Tel Number: 011 318 0851 Cell Number: 073 153 7892 E-mail: martin@zenawe.co.za

1.5 Details of Environmental Assessment Practitioner (EAP)

The role of the Environmental Assessment Practitioner ("EAP") is to manage the application for an Environmental Authorization on behalf of the applicant. The EAP must adhere to all relevant legislation and guidelines, ensuring that the reports contain all the necessary and relevant information required by the competent authority to make Scoping Report approval. It is the responsibility of the EAP to perform all work relating to the application in an objective, appropriate and responsible manner.

An EAP and a specialist, appointed in terms of regulation 12(1) or 12(2), must—

- (a) be independent;
- (b) have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity;
- (c) Ensure compliance with these Regulations;
- (d) 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 application;
- (e) take into account, to the extent possible, the matters referred to in regulation 18 when preparing the application and any report, plan or document relating to the application; and
- (f) Disclose to the proponent or applicant, registered interested and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing—
 - (i) any decision to be taken with respect to the application by the competent authority in terms of these Regulations; or
 - (ii) the objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority;

Table 1: Details of the EAP

Aspect	Detail
Consultancy name	MGTD Environmental cc
Physical Address	Unit 1, Upper Level, 96 Vorster Avenue, Glenanda, 2091
Postal Address	P O Box 2032, Mondeor, 2110
Other contact details	Cell: 083 328 0989 Fax: 086 685 7986
Principal Environmental Assessment Practitioner	Thobile Duma (SACNASP affiliated)
Qualifications	MBA MSc (Engineering) BSc Honours (Microbiology) BSc (Microbiology & Biochemistry)
Expertise/experience	[17 years] Director/Owner Manager: MGTD Environmental Environmental Consultant: Gates Land Solutions Environmental Specialist: Sasol Gas Environmental Advisor: Eskom Distribution
Assistant Environmental Assessment Practitioner	Mukoni Mmbengwa
Qualifications	National Diploma: Environmental Sciences
Contact details	Cell: 073 963 7939 Fax: 086 685 7986 Email: Mukoni.Mmbengwa@mgtdenvironmental.co.za/ mk.mbengwa@gmail.com
Expertise/experience	[5 years] Environmental Consultant: MGTD Environmental Environmental Consultant: Gates Land Solutions Research Assistant: (Atmospheric Emissions monitoring) Clay Brick Association Project Supervisor/Coordinator: Bontle Ke Botho greening and cleaning campaign (Mzansi Women Construction)

1.6 Property Details

TCT Civils is the registered owner of the portions of land earmarked for Mohlakens Ext 17. The properties for the proposed development and its associated activities are as follows:

Table 2: 21 Digit Surveyor General Code

Property/Land Parcel	21-digit Surveyor General Code
Remainder of Portion 83 of the Farm Middelvlei 255 IQ	TOIQ00000000025500083
Portion 63 of the Farm Luipaardsvlei 243 IQ	TOIQ00000000024300068
Remainder of Portion 136 of the Farm Luipaardsvlei 243 IQ	TOIQ00000000024300136

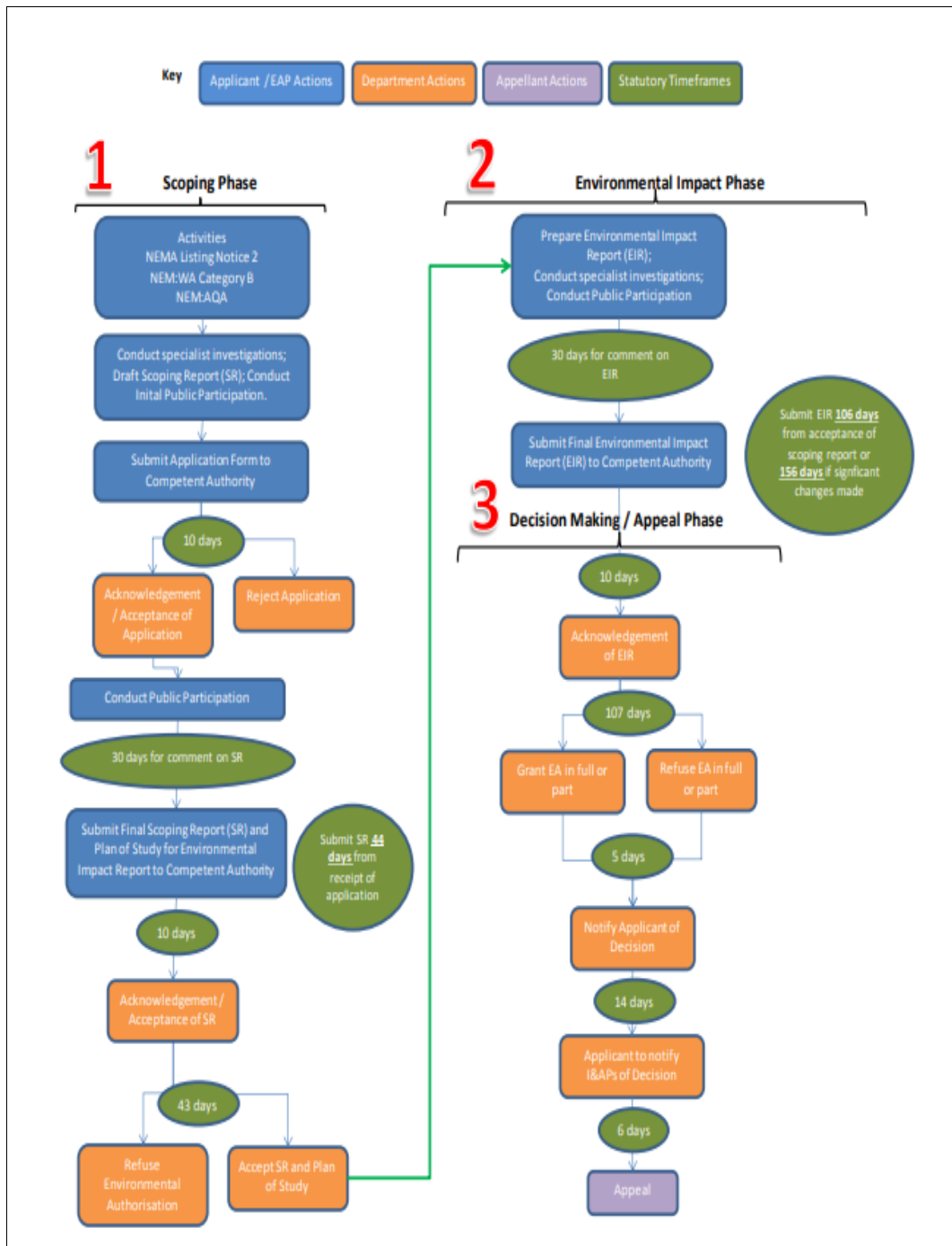
Site Co-ordinates: -26.215514, 27.708879

1.7 Environmental Impact Assessment Process

The environmental assessment process (Figure 4) will be undertaken in two phases namely:

- **Environmental Scoping Process** which includes the notification of the process and commissioning of specialists' studies.
- **The Environmental Impact Assessment phase** resulting in the EIAR as well as an Environmental Management Programme (EMPr). The EMPr will be compiled based on the findings of the Environmental Impact Assessment and will provide mitigation and management measures for the planning and construction phase of the proposed project. The EIAR will present findings of the EIA, describe the proposed activity and affected environment, forecast the significant impacts likely to result from the implementation of the activity; evaluate alternatives; and identify and evaluate the effectiveness of mitigation measures. The draft EIAR will be made available to registered I&APs, including the competent authority to review and comment for a period of 30 days. Once the comments have been collated, responded to and integrated into the final EIAR the report will be submitted to GDARD for consideration and decision-making.

Figure 4: EIA Process



2 DESCRIPTION OF THE PROPOSED ACTIVITY

This section provides details of the proposed activity and associated infrastructure as well as the motivation for the proposed development.

2.1 Scope of Activities

The project entails construction of res 1 2010 units, 6 re 4 units, one community facility and two educational facilities. This mixed-use development will cover an area of approximately 82 Ha (hectares) and will consist of the following (Table 3):

Table 3: Proposed Land Use

LAND USE				
Zoning	Land Use	Area of Stand	No. of units	No. of stands
Residential 1	Residential (180m - 55 du/ha) - Subsidized Housing	36.18 Ha	2010	2010
Residential 4	Residential (120 du/ha) - Walk ups Units	15.69 Ha	1880	6
Community Facility		0.58 Ha		1
Educational		4.26 Ha		2
Public Open Space (POS)		1.6 Ha		9
Street		23.66 Ha		
Total		82 Ha	3890	2028

2.2 Infrastructure Services

Due to the scale of the development, the availability of bulk services for the development will need to be investigated. Zenawe Engineers will prepare the Bulk Engineering Services Reports on the external services for the proposed development.

The infrastructure to be developed will include:

- The construction of roads;
- The provision of electricity;
- The provision of water;
- The provision of sewage pipelines;
- Zoning of properties, and
- Waste management

A detailed Engineering Services Report which addresses the specifications of electricity, water, sanitation, sewage infrastructure network and connection points,

traffic and waste management required to service the proposed township will be submitted with the EIR.

WATER

The water source, upgrades to existing water reticulation infrastructure and connection with the proposed internal water network will need to be determined. Back-up storage will also need to be investigated.

The availability and confirmation that sufficient capacity exists to service the proposed development will need to be addressed, and confirmation received from the engineers and/or municipality.

SEWER

The availability of sewer services, the potential upgrades to existing infrastructure or the potential development of new infrastructure to adequately service the proposed development will need to be investigated.

The availability and confirmation that sufficient capacity exists to service the proposed development will need to be addressed and confirmed by the engineers and/or the municipality.

ROADS

The internal road network and design standards, including any access roads, will need to be determined in line with the proposed layout design. The main entrance to the development is expected to be from an access road off the R559.

A Traffic Impact Assessment will be conducted to determine the design of the internal roads, including any upgrades that will be required to existing roads to provide adequate access to the site, or if new access points will be needed.

STORMWATER

The internal stormwater network and links and upgrades to the existing external stormwater network, will need to be determined and addressed in the Bulk Engineering Services Reports. This will be determined once a conceptual site layout plan has been developed.

SOLID WASTE (REFUSE) REMOVAL

Refuse removal will be via the Municipal waste stream and disposed of at the nearest municipal bulk solid waste disposal site. Sufficient capacity to adequately service the proposed development will need to be confirmed by the engineers and municipality.

ELECTRICITY

The proposed internal electrical network, electrical infrastructure requirements, upgrades to the existing external electrical network, including the provider and

confirmation of sufficient capacity will need to be determined and addressed in the Bulk Engineering Services Reports.

2.3 Activities Applied for in terms of NEMA

In terms of the NEMA EIA Regulations of 2014, the activities triggered by the proposed development are presented in the table below.

Table 4: EIA Listed Activities

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 (GN No. 327)	Describe the portion of the proposed project to which the applicable listed activity relates.
9	<p>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water-</p> <p>(i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where-</p> <p>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	<p>Infrastructure for the associated housing development.</p>
10	<p>The development and related operation of infrastructure exceeding 1000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</p> <p>(i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where-</p> <p>(a) such infrastructure is for bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	<p>Bulk transportation of sewage infrastructure for the associated housing development.</p>
12	<p>The development of –</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs—</p> <p>(a) within a watercourse;</p>	<p>A pan occurs within the study area.</p>
19	<p>The infilling of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit,</p>	<p>A pan occurs within the study area.</p>

	pebbles or rock of more than 10 cubic metres from – (i) A watercourse;	
Activity No(s):	Provide the relevant Scoping/Full EIA Activity(ies) as set out in Listing Notice 2 (GN No. 325)	Describe the portion of the proposed project to which the applicable listed activity relates.
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 total site to be developed is approximately 123 ha in extent.
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3 (GN No. 324)	Describe the portion of the proposed project to which the applicable listed activity relates.
4.	The development of a road wider than 4 metres with a reserve less than 13,5 metres. c. In Gauteng ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans. v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004).	Roads will be constructed as part of the proposed development.
12.	The clearance of an area of 300 square metres or more of indigenous vegetation. c. In Gauteng i. Within any critically endangered or endangered ecosystems listed in terms of section 52 of the NEMBA. ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in Gauteng Conservation Plan or bioregional plans;	The development will have an approximate 82-hectare footprint, much of which will require clearance of indigenous vegetation. Site falls within endangered Soweto Highveld and Carletonville Dolomite grasslands occur on site. Critical Biodiversity Areas occur on site.

2.4 Need and desirability

2.4.1 Provincial Context

Gauteng Province is the smallest province in South Africa by land area (18,178 km² – 1.5% of total national area), but it is the most populous with a total population of 12.3 million (making up 24% of the national population). The fastest growing component of the residential sector in Gauteng is informal housing, where close to a fifth of Gauteng's households are informal (19%, including backyard dwellers) (Stats SA 2011).

As we come to grips with the effects of the COVID-19 pandemic, various urban forms and functions are being examined critically by urban scholars and policy makers. High population density can be associated with a range of negative consequences. In particular, the COVID-19 pandemic has raised concerns that dense urban areas (including townships and informal settlements) increase the risk of transmission. The Department of Human Settlement, Water and Sanitation in South Africa has proposed de-densification as a potential way to combat COVID-19 in informal settlements, where preventative hygiene and social distancing are particularly challenging to implement. The task of measurably de-densifying places would require the relocation of very large numbers of people. Re-settlement locations must be clearly and transparently identified to ensure that these spaces are appropriate for human settlement, and that they take account of the long-term implications for infrastructure and maintenance. Gauteng has an average of 3.3 people per household and informal settlements have an average of 2.9 people per household.

2.4.2 Municipal Context

A survey recorded by the Gauteng Department of Housing during 2009 identified approximately 41,848 informal structures and 48,785 backyard units in the West Rand District. However, the housing demand records of the municipalities show a figure closer to 58,011 units. The largest housing demand was recorded in Rand West City (23,044), Merafong (21,050 units), followed by Mogale City (13,917 units). Rand West City holds an estimated 13,174 backyard units.

It is estimated that +22000 families in the Rand West City Local Municipality (RWCLM) do not have adequate access to formal houses (RWCLM Annual Report 2018/2019). Given the high unemployment rate, the situation is likely to worsen. To address these backlogs effectively the municipality needs to deliver approximately 5000 housing opportunities per annum for the next (5) years. Another contributing factor to the slow delivery is the scarcity of suitable land for development. Therefore, the current delivery rate is estimated at ± 500 housing opportunities per annum.

The five key challenges regarding the provision of housing facing the municipality include:

- The ever-increasing housing backlog due to the demand exceeding supply;
- Dolomite nature of the area /scarcity of suitable land for housing development, the fragmented urban landscape remains largely unchanged, with new housing developments generally located on the Land ownership;
- (Large portions of land identified to cater for future housing development are owned by private bodies – Mining Houses);

- Insufficient capacity of the existing infrastructure to accommodate the new and future housing programs; and
- The municipality's periphery, far from work opportunities, amenities and facilities.

The proposed development will assist in:

- Providing basic services and develop infrastructure;
- Building safer, viable and sustainable communities;
- Encouraging economic growth and development;
- Providing caring and effective government;
- Providing access to proper housing; and
- Providing bulk services including major roads, sewer and water will be provided and this will enhance the quality of life of the residence.

3 DESCRIPTION OF ALTERNATIVES

Identification and assessment of alternatives forms an important component of the EIA process. Alternatives provide the applicant and project team with a number of different options to achieve the desired goal identified in the Scoping Process are the No-Go Option, locality alternatives, land use alternatives and layout alternatives.

Regulation 21(3) of EIA Regulations R326 of 2014 requires that the Scoping Report include a description of any feasible and reasonable alternatives that have been identified. Regulation 1 of GN R326 defines alternatives as follows:

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

- (a) Property on which or location where the activity is proposed to be undertaken;
- (b) Type of activity to be undertaken;
- (c) Design or layout of the activity;
- (d) Technology to be used in the activity; or
- (e) Operational aspects of the activity; and includes the option of not implementing the activity;
- (f) Status quo / No-go alternative

Alternatives to the proposed development are very limited and have therefore not been considered for the following reasons described below:

3.1 Site alternatives

The proposed site is the only viable site available at this stage and the only one that will be investigated in this application. No site alternatives were considered as the landowners only have the listed properties to consider. A contract has been entered into between the owner developer and municipality for the development of this site. According to the WRDM SDF 2020, the site falls within (Strategic Development Areas/ Priority Housing Development Areas) in the town of Randfontein.

The locality of the study area is desirable for the proposed development due to the following:

- The site is well located from a connectivity point of view;
- The location of the site enables its development to contribute to urban corridor development;
- The study area is in close proximity to various other townships;
- The sensitive environmental attributes can be integrated with the development of the site;
- Existing road network provides ease of access.

3.2 Activity alternatives

Activity alternatives are also very limited with no feasible alternatives besides residential development to assess. Due to the need for housing in Rand West City Local Municipality, the housing development and associated infrastructure on the property is therefore the only activity considered.

The development may include a number of different land-uses however, besides just residential opportunities, to be incorporated into the layout. These will be investigated during the Environmental Impact Report phase. Alternative land uses, i.e. land uses that are not consistent with the relevant Municipal EMF, SDF and IDP, are not being considered, as this would be contrary to the Municipalities development guideline documents and will not provide for the community needs.

3.3 Design or Layout alternatives

Various layout alternatives will be investigated during the Environmental Impact Report. These will be compiled with input from the municipality and its requirements, as well as input and/or recommendations of the various specialists, as well as input from Interested and Affected Parties, including the community.

The layout will be finalised once all studies have been completed (e.g. geotechnical studies, ecological, wetland assessment, Heritage etc). The final layout will also be tested against an environmental sensitivity map that will be compiled for the study area.

3.4 Technology alternatives

Various types of material can be used for the construction of the township and its associated structures. These include different brick types (face brick, cement brick, etc.), roof types (pitched or flat), finishes (paint colour, external lighting, landscape features, etc.) and road surfacing (asphalt, brick paving). The proposed development should however be aesthetically pleasing to adjacent landowners and should blend in with surrounding developments. The following energy effective building construction, orientation structural designs are recommended by the environmental consultant:

- Use of building material that requires excessive amounts of energy to manufacture should be minimised.
- Building material that can be recycled / reused should be used rather than building material that cannot.
- All units will be provided with energy saving compact fluorescent lamps (CLF's).
- All electric geyser thermostats should be set at the most optimal temperature and insulated with geyser blankets.
- Energy efficient streetlight technology should be used as far as possible to reduce the energy requirements of the streetlight network and
- Make use of recycled concrete (green concrete).

3.5 Status quo / No-go alternatives

Should it be found that the development has extreme environmental effects that cannot be mitigated; it is required to assess the no-go alternative. This alternative considers the option of 'doing nothing' and maintaining the status quo. This means that no housing units will be formalized or constructed for the local people of Rand West City Local Municipality.

This will ensure that the current state of the area is maintained, including its ecological and social makeup. However, there will also be no positive impacts associated with the project, for instance, the provision of formal housing facilities, adequate sanitation infrastructure, the provision of job opportunities and skills development, etc.

The site is currently vacant but being degraded through illegal quarrying and dumping of municipal waste. Leaving it in its present state would result in the site being unattended, uncontrolled and unmanaged and subject to further degradation (which is already taking place). Possible use of the site for nefarious activities cannot be ruled out.

4. LEGAL REQUIREMENTS OF THE PROPOSED DEVELOPMENT

This section serves to highlight key legislation and policy framework that has implications on the proposed activity. It must be noted that this list is not exhaustive but notes, at high level, the critical laws and policies that have been considered.

4.1 The Constitution of the Republic of South Africa, 1996 (Act 108 of 1996)

All environmental aspects should be interpreted within the context of the Constitution. The Constitution has enhanced the status of the environment by virtue of the fact that environmental rights have been established (Section 24) and because other rights created in the Bill of Rights may impact on environmental management. An objective of local government is to provide a safe and healthy environment (Section 152) and public administration must be accountable, transparent and encourage participation.

Relevance to the Project:

- The Constitution is applicable in respect of all actions of the citizens of South Africa.
- Obligation to ensure that proposed activity will not result in pollution and/or ecological degradation;
- Obligation to ensure that where possible conservation is promoted; and
- Obligation to ensure that the proposed activity is ecologically sustainable, while
- demonstrating economic and social development

4.2 National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended

The National Environmental Management Act (Act No. 107 of 1998) commonly known as "NEMA" is South Africa's overarching framework for environmental legislation. The objective of NEMA is to provide for operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance, and procedures for co-ordinating environmental functions exercised by organs of state.

It sets out a number of principles that aim to give effect to the environmental policy of South Africa. These principles are designed to, amongst others, serve as a general framework for environmental planning, as guidelines by reference to which organs of state must exercise their functions and guide other laws concerned with the protection or management of the environment.

Chapter 5 of NEMA serves to promote integrated environmental management which must place people and their needs at the forefront of its concerns, and serve their physical, psychological, developmental, cultural and social interests equitably.

Development must be socially, environmentally and economically sustainable. Sustainable development therefore requires the consideration of all relevant factors.

4.3 Directions regarding measures to address, prevent and combat the spread of COVID-19 relating to National Environmental Management Permits and Licences (Government Gazette Notice: GN 650 in GG 43412 on 5 June 2020)

The Minister of Forestry, Fisheries and the Environment published directions under regulation 4(10) of the Regulations issued in terms of Section 27(2) of the Disaster Management Act 57 of 2002 to provide directions to ensure fair licensing processes and public participation in respect of National Environmental Management Permits and Licences ("the Directions"). The Directions repeal the Directions published under GN R 439 in GG 43190 on 31 March 2020.

Relevance to the Project:

The Directions provide for the following:

- Extension of timeframes;
- Applications and actions undertaken in terms of the Environmental Impact Assessment Regulations issued in terms of sections 24(5) and 44 of the National Environmental Management Act 107 of 1998 ("NEMA") published under GN R982 in GG 38282 on 4 December 2014;
- Applications and actions undertaken in terms of the National Environmental Management Waste Act 59 of 2008 ("NEMWA") and Waste Tyre Regulations issued in terms of section 69 (1)(b), (e) and (ee) of the NEMWA published under GN 1064 in GG 41157 on 29 September 2017;
- Applications and actions undertaken in terms of the National Environmental Management Air Quality Act 39 of 2004; and
- Appeals as contemplated in terms of the National Appeals Regulations. issued in terms of section 44(1)(a), read with section 43(4) of the NEMA published under GN R993 in GG 38303 on 8 December 2014.

The proposed development must uphold the principles of NEMA, mitigate all impacts and incorporate relevant environmentally friendly technologies and alternatives.

4.4 The National Water Act (Act No 36 of 1998)

The National Water Act (Act 36 of 1998) is the fundamental law for managing South Africa's water resources. The purpose of the Act is to ensure that water resources of the nation are protected, used, developed, conserved and controlled. It is concerned with the allocation of equitable access and the conservation of water resources within South Africa. The National Water Act (Act 36 of 1998) repeals many of the powers and functions of the Water Act (Act 54 of 1956).

Key Aspects of the National Water Act:

Relevance to the Project:

Watercourses occur on site and within 500m radius of the site.

The proposed development must uphold the principles of the National Water Act through the sustainable use of surface and groundwater, not infringing upon the equitable portion set aside for ecological functions and basic human needs, registering and licensing all water uses and properly monitoring and managing this scarce resource.

4.5 National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008, as amended)

The National Environmental Management: Waste Act, No 59 of 2008 came into effect on 1 July 2009. The main objectives of the Waste Act are as follows:

1. Promote an integrated approach in dealing with waste which focuses on prevention, minimization and responsible disposal of waste.
2. Ensure that waste is properly managed in order to minimize its potential to cause damage to the socio-economic and bio-physical environments.

Relevance to the Project

A waste license application is not triggered by the proposed development, however waste generated during construction as well as operational phase of the development will have to be managed responsibly.

4.6 The National Environmental Management: Biodiversity Act (Act 10 of 2004)

The National Environmental Management: Biodiversity Act (Act 10 of 2004) or NEMBA provides for the management and conservation of South Africa's biodiversity within the framework of NEMA. This Act allows for the protection of species and ecosystems that warrant national protection, the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bio-prospecting involving indigenous biological resources and the establishment and functions of the South African National Biodiversity Institute. Key elements of the Act are:

- The management and conservation of South Africa's biodiversity and its components;
- The identification, protection and management of species of high conservation value;
- The identification, protection and management of ecosystems and areas of high biodiversity value;
- The sustainable use of indigenous biological resources

Relevance to the Project:

According to published threatened ecosystems data, the site is situated within two vegetation types, namely the **Endangered** Soweto Highveld grasslands (Gm8) and the **Vulnerable** Carletonville Dolomite Grassland.

The proposed development must properly monitor, manage and conserve the biological diversity found in the study area. Taking into consideration the recommendations from ecological specialist report, the proposed development managers must maintain ecological integrity and protect threatened species, Alien and invasive species must be removed or managed.

4.7 National Environmental Management: Air Quality Act, 39 Of 2004 And Relevant Regulations

This act replaced the Atmospheric Pollution Prevention Act (Act No. 45 of 1965). The purpose of the Act is "To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto."

The Act describes various regulatory tools that should be developed to ensure the implementation and enforcement of air quality management plans. These include:

- Priority Areas, which are air pollution 'hot spots';
- Listed Activities, which are 'problem' processes that require an Atmospheric Emission Licence;
- Controlled Emitters, which includes the setting of emission standards for 'classes' of emitters, such as motor vehicles, incinerators, etc.;
- Control of noise; and
- Control of odours.

Relevance to the Project:

The proposed development does not trigger any regulatory tools in terms of the Act, however during the construction phase, generation of dust and noise could become a factor to residence living adjacent to the proposed development.

4.8 National Heritage Resources Act (No. 25 of 1999)

The Act aims to promote the good management of the national estate of South Africa. The national estate can include:

- Places to which oral traditions are attached or that are associated with living heritage;
- Historical settlements and townscapes;
- Geological sites of scientific or cultural importance;
- Archaeological and palaeontological sites;
- Graves and burial grounds, including:
 - Ancestral graves
 - Royal graves and graves of traditional leaders
 - Graves of victims of conflict

- Graves of individuals designated by the Minister by notice in the Gazette
- Historical graves and cemeteries
- Other human remains not covered in terms of the Human Tissue Act, 1983 (Act No 65 of 1983).
- Sites of significance relating to the history of slavery in South Africa.

In terms of Section 38 of the Act, the South African Heritage Resources Agency (SAHRA) must be notified during the early planning phases of a project for any development that includes the following activities:

- the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length
- any development or other activity which will change the character of a site exceeding 5 000 m² in extent
 - involving three or more existing erven or subdivisions thereof
 - involving three or more erven or divisions thereof which have been consolidated within the past five years
 - the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority
- the re-zoning of a site exceeding 10 000 m² in extent, or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

Relevance to the Project

- Any artefacts uncovered during the construction phase must be reported to SAHRA;
- No person may alter or demolish any structure or part of a structure, which is older than 60 years or disturb any archaeological or palaeontological site or grave older than 60 years without a permit issued by the relevant provincial heritage resources authority. The age of the stable building on site needs to be determined; and
- SAHRA must be informed of the proposed development and provided an opportunity to comment. This may result in the need for a basic heritage assessment.

Note: A Phase 1 Heritage Impact Assessment has been conducted and will be submitted to PHRAG and SAHRA.

4.9 National Building Regulations and Building Standards Act (Act No. 103 of 1997)

The Act aims "To promote for the promotion of uniformity in the law relating to the erection of buildings in the areas of jurisdiction of local authorities for the prescribing of building standards and for the matters connected therewith.

Relevance to the Project:

Procedures and process to be followed before the development can be erected should be complied with by the Developer.

4.10 Occupational Health & Safety Act (OHSA), 1993 (Act No 85 of 1993)

The Act was created to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

Relevance to the Project:

Regulations of the Act will apply during the construction phase of the proposed development.

4.11 National Environmental Management Protected Areas Act, 2003 (Act No. 57 of 2003, as amended)

The purpose of this act is to provide for the protection, conservation, and management of ecologically viable areas representative of South Africa's biological biodiversity and its natural landscapes. The Act also requires the establishment of a national system of protected areas in South Africa and the management and conservation of the biodiversity of the areas as listed in the system. The Listing Notices included as part of the 2014 NEMA EIA Regulations also include listed activities that take place within or in close proximity of Protected Areas. It is therefore important to confirm whether a study area is situated within or in close proximity of a Protected Area at the beginning of the EIA process.

Implications to the development:

The proposed development site does not form part of a protected area nor occur near a protected area.

4.12 Spatial Planning and Land User Management Act, 2013 (Act No. 16 of 2013) [SPLUMA]

The Spatial Planning and Land Use Management Act 16 of 2013 aims:

- to provide a framework for spatial planning and land use management in the Republic;
- to specify the relationship between the spatial planning and the land use management system and other kinds of planning;
- to provide for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government;
- to provide a framework for the monitoring, coordination and review of the spatial planning and land use management system;
- to provide a framework for policies, principles, norms and standards for spatial development planning and land use management;
- to address past spatial and regulatory imbalances;

- to promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications;
- to provide for the establishment, functions and operations of Municipal Planning Tribunals;
- to provide for the facilitation and enforcement of land use and development measures; and
- to provide for matters connected therewith.

Implications for development:

The proposed development is in line with SPLUMA and with the Spatial Development Frameworks of the municipality as the following principles have been applied to the development:

- Addressing spatial development imbalances by infill development of affordable housing within walking distance of public transport and development nodes.
- Providing inclusivity by means of access to public transport facilities and employment opportunities.
- The developer will provide for infrastructure development and upgrades as part of the development.
- Limiting urban sprawl and discourage expansion of informal settlements by infill development.

4.13 Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001, as amended)

The act was created to consolidate the laws relating to roads and other types of transport infrastructure in Gauteng; and to provide for the planning, design, development, construction, financing, management, control, maintenance, protection and rehabilitation of provincial roads, railway lines and other transport infrastructure in Gauteng; and to provide for matters connected therewith.

Relevance to the Project:

In terms of Section 46 of the act, no person may erect, construct, or lay, or establish a structure or object on or over, or below the surface of a provincial road or railway line or land in a building restriction area.

4.14 Other policies, plans and guideline documents

4.14.1 West Rand Draft EMF, 2013

The EMF serves as a management and decision-support tool that provides authorities with information about the status quo of the environment and the associated planning parameters.

It identifies and spatially represents areas of potential conflict between sensitive environments and development proposals, thus assisting in integrating social, economic and environmental factors into planning.

Relevance to the Project:

- Promote sustainability;
- Secure environmental protection; and
- Promote cooperative environmental governance.

4.14. 2 The West Rand District Municipality Spatial Development Framework (SDF) (2014)

The SDF provides the framework for building a prosperous, sustainable growing provincial economy to eradicate poverty and improve social development.

Relevance to the Project:

The Spatial Development Framework for the West Rand District facilitates the consolidation of the District's settlement structure; encourages rural-urban interaction; provides a framework (spatial logic) for the efficient, equitable and sustainable provision of community infrastructure and services; unlocks the development potential of existing towns through proposals for developing industry specific economic clusters in line with the district space economy; functionally links the main growth centres via well-developed corridors; and mitigates existing and potential future land use conflict(s) between industrial developments, mining, agriculture, and tourism.

4.14.3 Rand West City Local Municipality IDP, 2020/2021

The Integrated Development Plan enhances integrated service delivery and development and promotes sustainable, integrated communities, providing a full basket of services, as communities cannot be developed in a fragmented manner.

Relevance to the Project:

The IDP serves as a single broad strategic guide for the priority issues of the community and residents of RWCLM.

4.14.4 Gauteng Conservation Plan (C-Plan) Version 3.3

Gauteng Nature Conservation (hereafter Conservation), a component of the Gauteng Department of Agriculture and Rural Development (GDARD) produced the Gauteng Conservation Plan Version 3 (C-Plan 3) in December 2010. The conservation plan was edited on three occasions since then: C-Plan 3.1 was released in July 2011 after it became apparent that some areas were not desirable in Critical Biodiversity Areas (CBAs hereafter). Not all areas were addressed in the first round of editing, so this was done during September 2011 resulting in C-Plan Version 3.2. It was soon released however, that some CBAs became separated by the removal of undesirable areas causing some attributes not to be completely reflective of that CBAs any longer.

C-Plan 3.3 became available in October 2011 (as amended) after this issue was addressed.

The main purposes of C-Plan 3.3 are:

- to serve as the primary decision support tool for the biodiversity component of the Environmental Impact Assessment (EIA) process;
- to inform protected area expansion and biodiversity stewardship programs in the province;
- to serve as a basis for development of Bioregional Plans in municipalities within the province.

Relevance to the Project:

The site is situated within Critical Biodiversity Areas (CBAs) as in terms of the GDARD C-Plan.

4.14.5 Gauteng Noise Control Regulations

This Regulation controls noise pollution. According to this Regulation the acceptable noise levels in a residential area situated within an urban area is 55dBA and the maximum acceptable noise levels in a rural area is 45dBA.

Relevance to the Project:

If well planned and if mitigation measures are successfully implemented, the proposed development, which is a residential development, will not contribute to significant noise generation in the area, as it is adjacent to other residential developments.

The noise impacts will mainly be during the construction phase and is will therefore be only short term of nature. One should note that there are not many practical mitigation measures for noise pollution, but certain measures can be implemented to mitigate the severity.

4.14.6 GDARD Buffer Zone Guidelines 2017

The purpose of this guideline is to ensure that the residents of the Gauteng Province are protected from the emissions from pollution generators. This document aims to spatially document and categorise industrially affiliated activities and establish buffers around them to ensure that only the compatible land uses are allowed in the buffer areas.

Care should be taken in the placement of incompatible land uses with an emphasis on mitigation measures that will be implemented; this should not be a norm but a consideration on a case by case basis. The primary concern is to ensure that the people who live in Gauteng are protected from the negative health impacts of such activities.

Relevance to the Project:

The proposed Mohlakeng Housing Development is in close proximity (< 2km) to an old tailings dump to the South of the site.

4.14.7 DWA Dolomite guidelines 2009 Final

This booklet aims to give a short and clear summary of the available guideline documents dealing with development on karst dolomite land in South Africa. The Department of Water Affairs has developed a detailed guideline for the Assessment, Planning and Management of groundwater in those parts of South Africa underlain by dolomite rocks.

Relevance to the Project:

The proposed Mohlakeng Housing development study area falls within area underlain by dolomitic conditions.

4.14.7 Appropriate Development of Infrastructure on Dolomite:

Guidelines for Consultants

The document serves as a guideline on appropriate development and risk management of infrastructure located on dolomite in South Africa. These guidelines are aimed at informing principal agents and other consultants of the minimum requirements of the Department of Public Works concerning the upgrading, extension and development of new infrastructure on dolomite, thereby promoting safe, sustainable development.

Relevance to the Project:

The objective of applying a risk management strategy to infrastructure is to ensure the safety of personnel and visitors, protection of property and to avoid fruitless expenditure.

Avoiding sinkholes is not only important from a safety point of view, rehabilitating sinkholes and repairing buildings/infrastructure is costly.

4.14.8 SANS 1936-1: Development of dolomite land — Part 1: General principles and requirements

The objective of SANS 1936 is to set requirements for the development of dolomite land in order to ensure that people live and work in an environment that is seen by society to be acceptably safe, where loss of assets is within tolerable limits, and where cost-effective and sustainable land usage is achieved.

Relevance to the Project:

This part of SANS 1936 establishes qualitative and quantitative performance requirements for the development of dolomite land with respect to land safety and land usage, to ensure

- a) a tolerable hazard; and
- b) that the current land usage does not compromise the future use of such land.

5 DESCRIPTION OF THE RECEIVING ENVIRONMENT

This chapter provides a description of the receiving environment within the study area. This description has not been informed by any specialist studies undertaken for this assessment but includes information obtained from various literature sources and is described at a level deemed appropriate for a Scoping study. Additional detailed information will unfold in the EIA phase. Three components to the environment are recognised:

- Physical Environment
- Biological Environment
- Socio-Economic Environment.

Only those elements of the environment that have a direct bearing on the impact assessment process of the project are discussed. The severity of the potential impacts is largely determined by the state of the receiving environment.

5.1 PHYSICAL ENVIRONMENT

5.1.1 Access

The site is easily accessible. Access to and from site can be achieved through existing major roads; the R559, the R28, a regional route connecting Krugersdorp with Vereeniging that passes through Randfontein (called Main Reef Road through central Randfontein) while the R41 connects Randfontein with Johannesburg (Figure 1).

5.1.2 Climate

The climate of the RWCLM is typical of Highveld conditions, with relatively warm to hot summers, fairly high rainfall and moderate to cool winters (with little or no rain). Average annual minimum and maximum temperatures recorded range between 8° Celsius and 23.9° Celsius respectively.

The average annual precipitation recorded ranges between 646 mm and 736 mm, and falls predominantly between October and March, during the summer months. Monthly rainfall ranges from 4 mm to 138 mm.

Implications for development:

Climate plays a role in determining the availability of water resources, the nature of the natural landscape and vegetation. There is a wide variation in climate, drought and floods occur regularly, they play a significant role in every aspect of the social, economic and ecological environment.

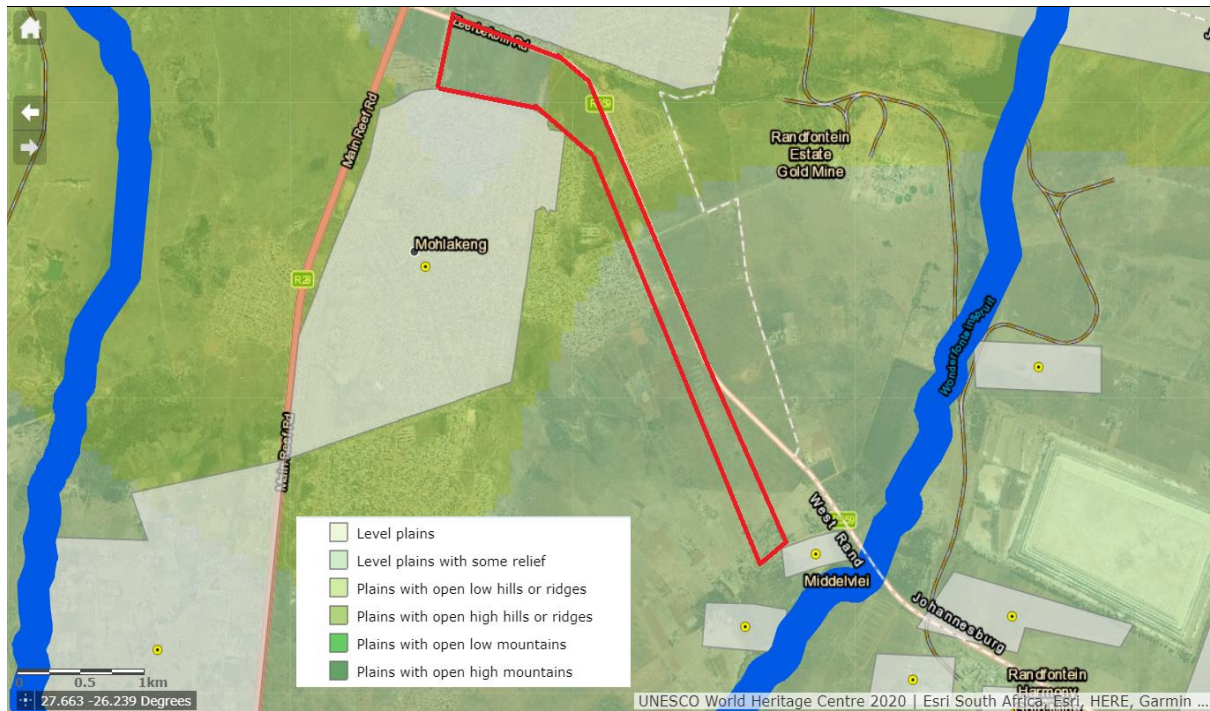
5.1.2 Topography

The topography of the area is relative flat, gentle landscape. The entire development falls within an area with slope less than 2% (Figure 5).

Implications for development:

The study area is topographically suitable for housing on the gentle slopes without the need of expensive earth moving and infill activities.

Figure 5: Topography



Source: DAFF GIS

5.1.3 Geology and Soils

Geology is an important element to sustaining development over the long term as it determines the stability of the land as well as the soil conditions on which plant matter depends. The site is underlain by different rock forms of Government Supergroup, Klipriviersberg Group, Black Reef Formation and Malmani Supergroup (Figure 6).

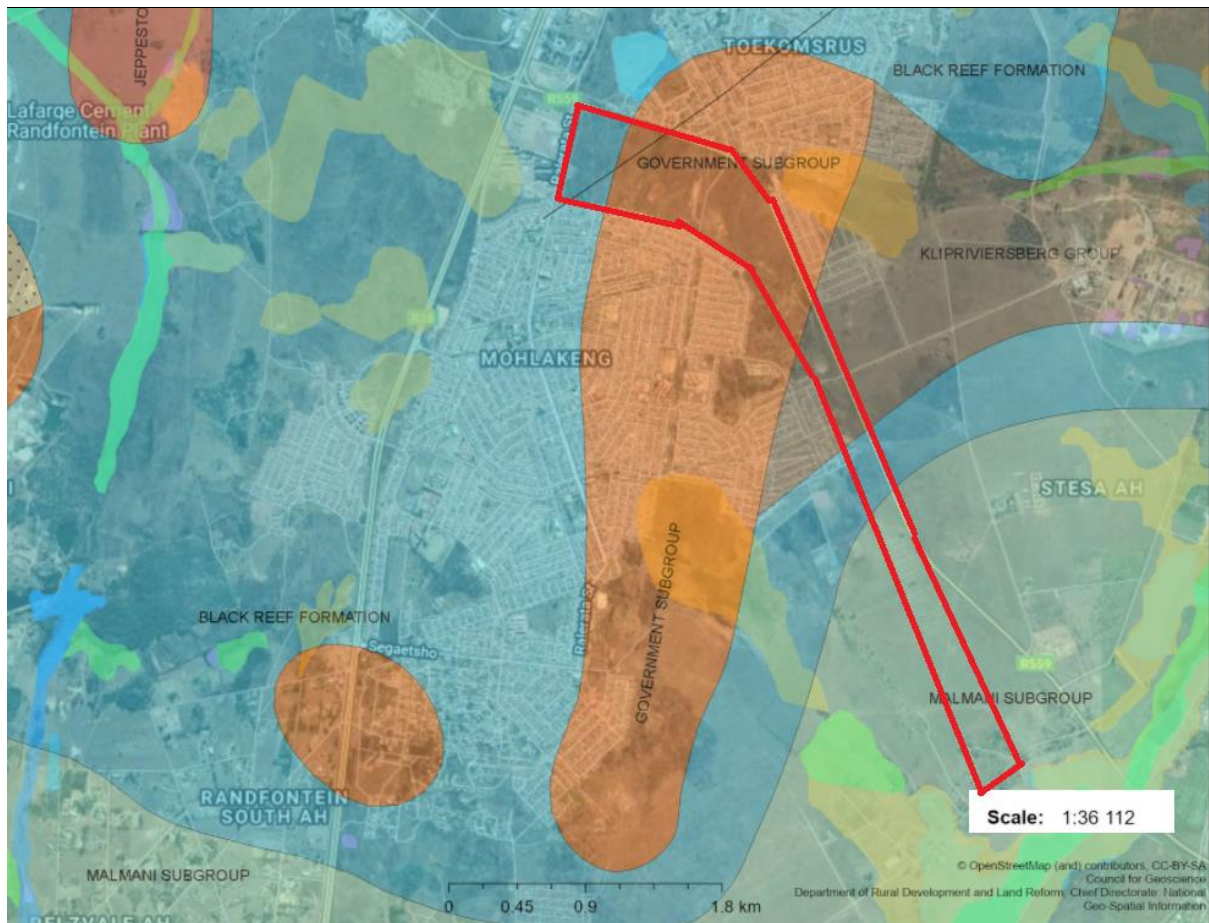
The Black Reef formation forms part of the Transvaal Supergroup and comprises of quartzite, conglomerate and shale.

Implications for development:

Shallow dolomites are problematic for development due to the risk of sinkhole development and groundwater contamination. The depth of the dolomitic rock will determine the potential impact to development. The underlying dolomites restrict development and requires detailed geological studies prior to any development commencing.

Black Reef formation is considered as a geological unit subject to dolomite related instabilities.

Figure 6: Geology



Source: CapeFarm Mapper

5.1.4 Hydrological Features

The site lies in quaternary catchment C23D has a mean annual precipitation of 663.50 mm and mean annual runoff of 29.5%. The study site drains to the Vaal River via the Wonderfonteinspruit (on site)/ Mooirivierloop system. A depression wetland was observed on site (Figure 7) with a second depression wetland system and channelled valley bottom (Wonderfonteinspruit) within the 500-meter ESA.

Implications for development:

- A Wetland delineation study will be conducted to determine the status of the wetland and appropriate buffers applied.
- Avoid construction activities in wetlands or preferential hydrological pathways supporting wetlands through proper planning, appropriate design and minimising the construction footprint as per previous impacts discussed.

- Wetlands serve to improve habitat within and potentially downstream of the study area through the provision of various ecosystem services.
- Many of these functional benefits therefore contribute directly or indirectly to increase biodiversity within the study area as well as downstream of the study area through provision and maintenance of appropriate habitat and associated ecological processes.
- All wetlands, rivers, their flood zones and their riparian areas are protected by law and no development is allowed to negatively impact on rivers and river vegetation. The vegetation in and around rivers and drainage lines play an important role in water catchments, assimilation of phosphates, nitrates and toxins as well as flood attenuation. Quality, quantity and sustainability of water resources are fully dependent on good land management practices within the catchment. All flood lines, riparian zones and wetlands along with corresponding buffer zones must be designated as sensitive.
- Impeding or diverting the flow of water in and/or altering the bed, banks, course or characteristics of a “watercourse” are section 21(c) and (i) water uses that normally require licensing in terms of the South African National Water Act, 1998 (the NWA). The new general authorisation for section 21(c) and (i) water uses published in August 2016 (the New GA) replaces the need to obtain a water use licence for these water uses in certain circumstances.
- The New GA applies where a section 21(c) and/or (i) water use will be undertaken within the “regulated area of a watercourse”. Where the water use will occur outside of the regulated area of a watercourse, no authorisation is required.
- Under the New GA, a risk assessment must be conducted before a section 21(c) and/or (i) water use activity may be undertaken. If the activity achieves a “low risk” score, the activity can be undertaken without a water use license and in compliance with the requirements of the New GA. “Medium” and “high” risk activities will require licensing. Certain categories of persons undertaking specific activities are exempted from the requirement to conduct a risk assessment.
- Development within 500m of a wetland water use activity will be triggered (Figure 7).

Figure 7: Hydrology



Source: Galago Wetland Report

5.1.5 Land Use

The study area is located within an urban area. The immediate surroundings of the study area comprise in general of established residential areas (Toekomsrus and Mohlakeng Extensions) and subsistence farming (Figure 8). New residential and retail developments are currently being constructed on site (Figure 9). The north-eastern and eastern part of the site that abuts Ralerata Street appears to be natural grassland. A small pan occurs near Main Road almost on the corner of Ralerata Street. The southern two-thirds of the site comprises disturbed (secondary) grassland. A drainage canal that empties just south of the access road to Randfontein Estates Gold Mine forms an artificial wetland and much littering and dumping of waste occurs here. Household and builders' waste has also been dumped in the area adjoining the Township and along Main Road. The ruins of a row of animal housing occur in the southern third of the site. A sunken bunker-like structure that might have been used as a feed-storage area occurs among the ruins. The broken-down entrance resembles a cave and might harbour bats.

Implications for development:

Land use activities impact on the extent and ecological status of natural habitats. Land use is measured at the landscape level by mapping land cover. Land cover describes the present physical make-up of a site based on interpretation of satellite imagery. Land cover can range from various natural states (e.g. grassland, shrubland,

woodland, etc.) through to altered states (e.g. crop fields, urban settlements, mining and industrial structures).

The proposed development complies with the general aesthetics of the area. Five (5) residential and commercial projects currently under active construction in close proximity of the site.

Figure 8: Land Cover



Figure 9: Land Use Activities within and surrounding the site

Illegal quarrying on site



Old Farm Structures



Umphakathi Mall in construction



Montrose Mega City in construction stage



Mohlakeng Health Care Centre



5.2 Biological Environment

5.2.1 Vegetation

The study area has two types of vegetation, Soweto Highveld Grassland and Carletonville Dolomite Grassland (Figure 8). The characteristics of these vegetation types are as follows:

Soweto Highveld Grassland

This is a short to medium-high, dense, tufted grassland dominated almost entirely by *Themeda triandra* occurring on moderately undulating landscapes of the Highveld plateau. According to Mucina et al. (2006), this is a grassland that is characterized by the dominance of the species, *Themeda triandra*, accompanied by a variety of other grasses, such as *Elionurus muticus*, *Eragrostis racemosa*, *Heteropogon contortus* and *Tristachya leucothrix*. This vegetation type is considered to be Endangered (Driver et al., 2005 and Mucina et al., 2006), and whilst the conservation target is 24%, only a small extent is currently protected and 23% is considered to be transformed with 0.2% conserved of a target of 24% and approximately 47% transformed, mainly by cultivation, urban sprawl, mining and building of road infrastructure (Mucina et al. 2006).

Carletonville Dolomite Grassland

This is a species-rich mosaic of plant community types occurring on undulating plains dissected by rocky chert ridges. It is a vegetation type that is characterized by the presence of the species, *Aristida congesta*, *Brachiaria serrata*, *Cynodon dactylon*, *Digitaria tricholaenoides*, *Diheteropogon amplexans*, *Eragrostis chloromelas*, *Eragrostis racemosa*, *Heteropogon contortus*, *Loudetia simplex*, *Schizachyrium sanguineum*, *Setaria sphacelata*, *Themeda triandra*, and a wide variety of herbaceous forbs and other grasses. This vegetation type is considered to be Vulnerable (Driver et al., 2005 and Mucina et al., 2006), and whilst the conservation target is 24%, only a small extent is currently protected and 23% is considered to be transformed, mostly by cultivation (17%), urbanization (4%), forestry (1%) and mining (1%) (Mucina et al. 2006).

Implications for development:

- Detailed Ecological Assessment studies (Vegetation and Faunal Assessments) are essential to fully assess the impacts of proposed activities. Galago Environmental has been appointed.

5.2.2 Fauna

Available habitat on the study area is not regarded suitable for diverse or sensitive faunal assemblages. The area is largely transformed by development. The study area is not expected to represent any significant value in terms of migration corridors. A low faunal sensitivity is attributed to areas that constitute transformed habitat. The likelihood that any Red Data species might be present within the study area is regarded to be low. However, faunal assessment need to be conducted to ensure that all species are identified and protected.

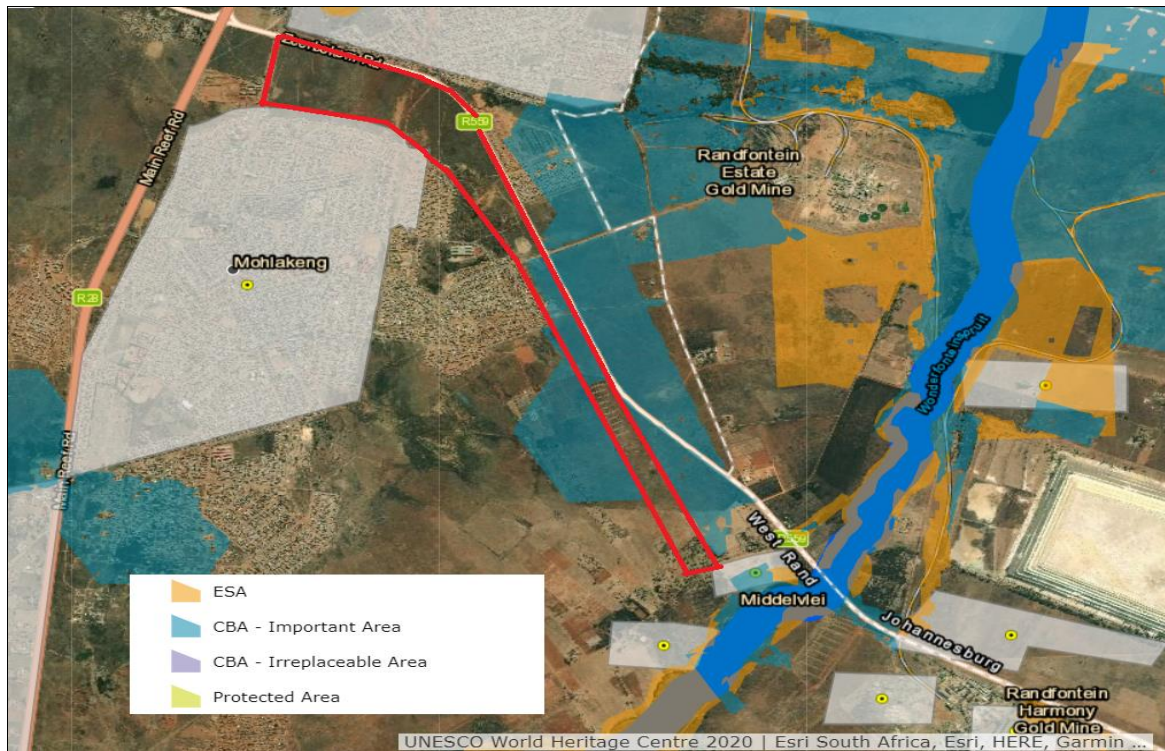
5.2.3 Biodiversity Features

The study area falls within the Critical Biodiversity Area: Important Areas (Figure 10).

Implications for development:

Critical Biodiversity Areas (CBAs) are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure existence and functioning of species and ecosystems and the delivery of ecosystem services. In other words, if these areas are not maintained in a natural or near natural state then biodiversity targets cannot be met. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses.

Figure 10: Critical Biodiversity Areas



5.2.4 Protected Areas

No formally or informally, protected areas were recorded within the study area.

5.3 Socio-economic Environment

The socio-economic environment of an area is defined by social factors, such as population growth and education levels as well as the economic situation as it relates to society, for example, income and employment statistics. This information provides an indication of the level of poverty and wellbeing in the community.

5.3.1 Demographic profile

Population

The total population of the Rand West is expected to be at 276 513 in 2020, an increase of over 13 000 people from 2015. For the past few years there has been a major incline of population growth in Randfontein. The percentage of population growth rate in Randfontein has increased with 0.4% from 2010- 2015 and it was constant for four years from 2011-2014 and the growth in Westonaria decreased with 0.8% from 2010-2015. According to the West Rand District profile June 2020, the Rand West City Local Municipality has the second highest growth in terms of its population after Mogale City Local Municipality with an average annual growth rate of 1.1%. It is projected that by 2030 there will be just over 1 million citizens in the West Rand district.

Project implication

The proposed housing development will assist in de-densification of communities.

5.3.2 Local Economic Profile

The Rand West City Local Municipality's economy is mainly driven by the mining sector, and, therefore, subject to external volatilities and impacts. The West Rand's economy was in recession in 2018, with growth contracting by 1.4 per cent from the 1 per cent in 2017. The decline in economic growth is owing to the decline in mining output. The mining sector, which accounts for roughly 30 per cent of economic activity in West Rand, contracted by 7,2 per cent in 2018.

Output in manufacturing and construction also contracted. The economy of West Rand has been negatively affected by the distressed mining sector owing to declining gold reserves, continuously rising input costs and the stagnant international price of gold. The Covid crisis has also affected the RWCLM, the analysis shows that Agriculture contributed 5.5% for Rand West, The Mining, Electricity, Construction, Trade, Transport, Finance and Community industries have all contributed negative % respectively (South African Reserve Bank and IHS Markit).

Agriculture and mining constitute the primary sector in West Rand and are the biggest drivers of economic activity. Manufacturing, construction and electricity form the secondary sector of the District. Government services and finance are the second and third largest contributors to economic activity in the West Rand, respectively. The highest share in employment for Rand West City is mining & quarrying (16 773 people) and community services (11 265 people) while the lowest were electricity, gas & water (473 people) and agriculture, forestry & fishery (781 people).

There is little support for the informal economy, while township economies are unable to retain local spending power. Many of the challenges are as a result of insufficient institutional capacity and lack of strong instruments for implementation.

5.3.3 Employment/Unemployment and Poverty

The mining industry is the highest employing sector in the formal employment category followed by the Trade industry, the lowest industry in terms of employment is

the Agricultural and Electricity sector. The household is also doing better than other formal categories but this may change due to the pandemic.

5.3.4 Economically Active Population

Economically Active Population has seen growth in the period 2010-2014 across municipality. Furthermore, shows that in 2014, Rand West City had a total of 132 742 Economically Active Population (Table 5).

Table 5: Economically Active Population

Year	Rand West
2010	121 490
2011	120 903
2012	124 221
2013	128 427
2014	132 742

5.3.5 Unemployment Rate

The analysis indicates that unemployment rate (jobless) in the Rand West City has increased over the years and it has also increased during the impact of Covid-19 is expected to be severe on the labour market (RWCLM IDP 2020/21).

- Lockdown restrictions threaten business operations and solvency
- Workers are vulnerable to income losses due to reduced working hours and layoffs.

Table 6: Unemployment Rate

Year	Rand West
2010	26.1%
2011	26.8%
2012	30.3%
2013	34.6%
2014	39.3%

Implications for development:

Infrastructure investment by government in terms of transport and electricity as well as the provision of houses and services to rural areas are the main potential for local construction companies to benefit.

A growing population creates a demand for employment opportunities. The proposed development could provide employment opportunities for the larger Randfontein area, including Mohlakeng, Toekomsrus and Badirile Townships which would in turn assist in alleviating the poverty level.

According to the Market Study done for the proposed development by Urban Econ in August 2020, the current market conditions do not allow for 15 000 residential units. As such, it is proposed that the development unfold in phases. The table below illustrates the proposed phases for the development alongside their anticipated completion dates (Table 7).

Table 7: Proposed Development Phases

Phase 1: 2022		Phase 2: 2026		Phase 3: 2030	
Total Number of Units	4000	Total Number of Units	2000	Total Number of Units	2400
Total Bonded Units	3000	Total Bonded Units	1200	Total Bonded Units	1500
Subsidised	1504	Subsidised	602	Subsidised	752
FLISP	744	FLISP	298	FLISP	372
Affordable Housing	343	Affordable Housing	137	Affordable Housing	172
Middle Income	348	Middle Income	139	Middle Income	174
High Income	60	High Income	24	High Income	30
Total Rental Units	1000	Total Rental Units	800	Total Rental Units	900
CRU	261	CRU	209	CRU	235
Social Housing Primary Market	97	Social Housing Primary Market	78	Social Housing Primary Market	88
Social Housing Secondary Market	147	Social Housing Secondary Market	118	Social Housing Secondary Market	133
Affordable Housing	211	Affordable Housing	169	Affordable Housing	190
Middle Income	251	Middle Income	201	Middle Income	226
High Income	32	High Income	26	High Income	29

Two developments in the primary market area directly compete with the proposed development. The first development is Toekomsrus Phase 3 by KM Housing, with the development of 180 bonded units in the middle-income price range. The second development is the Greenfield Estate, a social housing development by The Housing Hub and Zelriprop with a total of 1 080 units. Aspects examined in the residential market potential include the population and number of households, tenure status, household income and housing affordability ranges.

- A leakage of 10% and an injection of 70% were applied in the model. Net effective demand (taking into account the supply in the primary market area) shows that there is a demand for 2 594 bonded units and 618 rental units in 2020. This is expected to grow to 5 706 bonded units and 2 771 rental units by 2030

5.3.6 Safety & Security

Crime continues to one of the biggest challenges for the government of South Africa. Crime statistics seem to increase each year and the government continues to put measures in place in order to fight crime. Crime is driven by many factors but the most important is poverty. In poor communities the rate of crime is usually higher than in

middle-class or wealthy communities. The municipality needs to work with the South African Police Services to come up with campaigns to combat crime.

For the period 2008/2009 to 2018/2019 overall crime decreased at an average annual rate of 2.86% within the West Rand District Municipality. Violent crime decreased by 2.98% since 2008/2009, while property crimes decreased by 2.11% between the 2008/2009 and 2018/2019 financial years.

5.3.7 Health

The District has 66 health care facilities with 14 in Rand West City.

Implications for development:

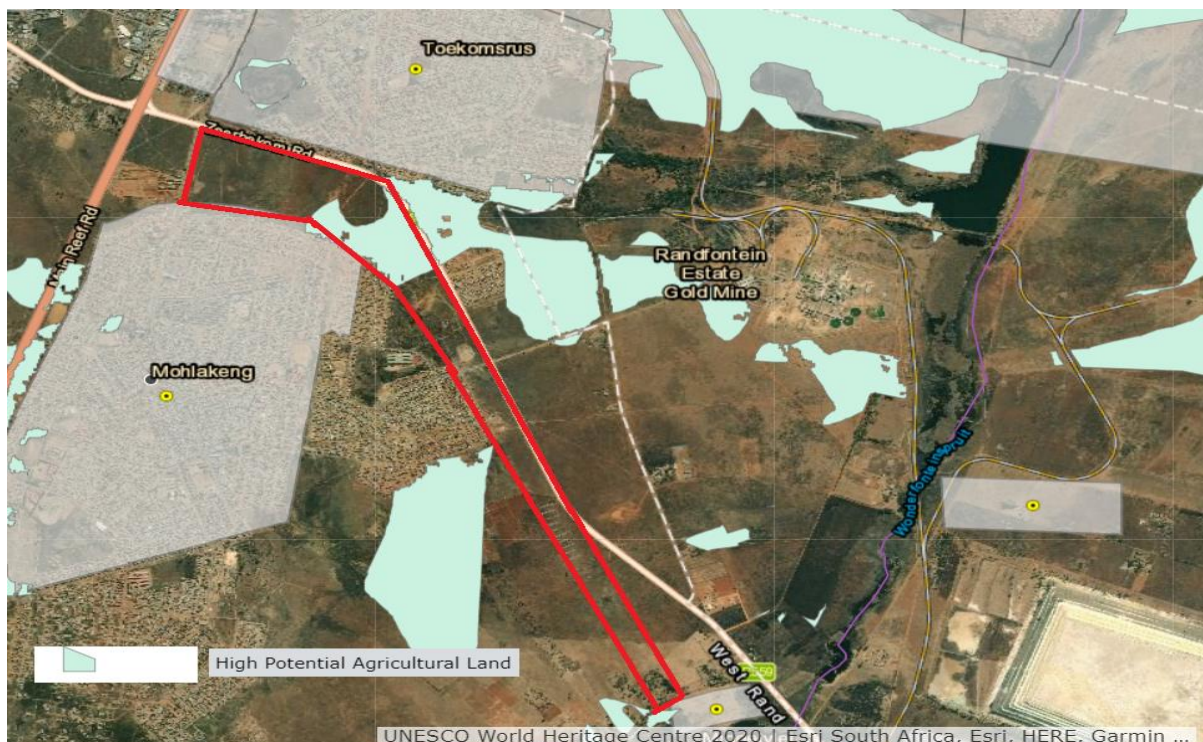
The residents of the proposed housing development will be catered for in terms of health needs as the Rand West City Local Municipality has adequate health facilities.

A new Mohlakeng Health Centre is currently under construction north-west of the proposed housing development.

5.3.8 Agricultural Potential

The site has a small pocket of high agricultural potential (Figure 11).

Figure 11: High Agricultural Potential land on site



5.3.9 Noise

Noise Sensitive receptors are primarily residential areas close to the site. However, the receptors are buffered from the site by main roads.

5.3.9 Air Quality

Airborne concentrations of particulates and dust fallout are the main concern in the area as a result of exposed or partially exposed tailings dams, unpaved roads, mining and industrial activities (such as crushing and screening, and temporary storage piles), as well as biomass (veld) burning and informal refuse burning.

Implications for development:

The proposed housing development site is located within 1 kilometre from a tailing dam in the south western direction. The developer to ensure that all buffer requirements are complied with.

5.3.10 Heritage

A cultural resource may be a tangible entity or a cultural practice. Collectively, cultural resources make up cultural heritage, which constitutes the basic record of past human activities. Due to the nature and size of the proposed development, potential heritage resources may be affected by the development. Heritage resources include any of the following, as defined by the National Heritage Resources Act (Act 25 of 1999):

- living heritage as defined in the National Heritage Council Act No 11 of 1999 (cultural tradition; oral history; performance; ritual; popular memory; skills and techniques; indigenous knowledge systems; and the holistic approach to nature, society and social relationships);
- places, buildings, structures and equipment;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds;
- public monuments and memorials;
- sites of significance relating to the history of slavery in South Africa;
- movable objects, but excluding any object made by a living person; and
- battlefields.

Implications for development:

A Heritage Site Survey was conducted, and the following was recommended by the Specialist:

The heritage report is seen as sufficient mitigation and the proposed development may therefore continue.

- The active religious site found, can be seen as living heritage. This however rather is the domain of anthropologists and sociologists than that of archaeologists. It is known that these churches move around from time to time and create new religious spaces when the need for this arises. Thus, the physical manifestation of the site is not important. It will simply move if the space is not available for use in future.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. It is possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features.

Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

In this regard the following 'Chance find Procedure' should be followed:

- Upon finding any archaeological or historical material all work at the affected area must cease.
- The area should be demarcated in order to prevent any further work there until an investigation has been completed.
- An archaeologist should be contacted immediately to provide advice on the matter.
- Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.
- SAHRA's APM Unit may also be notified.
- If needed the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.

6. IMPACT ASSESSMENT METHODOLOGY AND ASSESSMENT OF IMPACTS

This section provides the methodology for assessing the significance of impacts associated with the activity. The criterion for determining impact significance has been defined in accordance with the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014 as amended.

The assessment of the potential impacts will be based on extensive experience related to environmental impact assessment as well as specialist assessment and input, where applicable. Impact assessment will also be coupled with input and comment from stakeholders. The potential impacts will be assessed after review by the professional team, including specialists, and based on professional judgement.

In the EIA Report, it is proposed that the types of potential impact (direct, indirect, and cumulative) be considered along with the nature, extent and location of the potential impacts. A prediction will be made of the timing and duration of the potential impact. A prediction will also be made of the likelihood or probability of the impact occurring. As a product of the defining characteristics of the impact described above, an estimation of the significance of the potential impact will be determined.

Mitigation measures will be identified that could be implemented to lessen the potential impacts and an evaluation of the predicted significance of residual impacts after mitigation is put into place, will be made.

Each impact identified will be assessed in terms of probability (Likelihood of occurring), scale (spatial scale), magnitude (severity) and duration (temporal scale). To effectively implement the adopted scientific approach in determining the significance of the environmental impact, a numerical value was linked to each rating scale.

The following criteria will be applied to the impact assessment for the EIA:

Occurrence

- Probability- the probability of the impact describes the likelihood of the impact actually occurring.
- Impact Duration- the Duration of the impact describes the period of time during which an environmental system or component is changed by the impact.

Severity

- Magnitude –refers to the 'Degree of Disturbance' to biophysical systems and components expresses the change in the health, functioning and/or role of the system or component as a result of an activity.
- Scale/extent - The Extent of the impact generally expresses the spatial influence of the effects produced by a disturbance to an environmental system or component.

The following ranking scales will be used:

<p>Probability: =P</p> <p>5 – Definite (More than 80 % chance of occurrence)</p> <p>4 – Probable (Between 60-80% chance of occurrence)</p> <p>3 – Possible (Between 40-60% chance of occurrence)</p> <p>2 – Fairly Unlikely (Between 20-40% chance of occurrence)</p> <p>1 – Unlikely (Less than 20% chance of occurrence)</p>	<p>Duration: =D</p> <p>5 – Permanent- The only class of impact that will be non-transitory (Indefinite)</p> <p>4 - Long-term-: The impact and its effects will continue or last for the entire operational life of the development (15- 50years)</p> <p>3 - Medium-term-: The impact and its effects will continue or last for some time after the construction phase (5-15 years)</p> <p>2 – Medium-short- The impact and its effects will continue or last for the period of a relatively long construction period and/or limited recovery time after this construction period (2-5 years)</p> <p>1 – Short Term- Likely to disappear with mitigation measures or through natural processes span shorter than construction phase (0-2 years)</p>
<p>Scale: =S</p> <p>5 – International (beyond 200km)</p> <p>4 – Regional (50-200km radius)</p> <p>3 – Local (2-50km radius)</p> <p>2 – Surrounding Area (within 2km)</p> <p>1 – Site (within 100m)</p>	<p>Magnitude: =M</p> <p>10 – High</p> <p>8 – Medium High</p> <p>6 – Medium</p> <p>4 – Medium Low</p> <p>2 – Low</p>

Status of Impact

+ Positive / -Negative or 0-Neutral

Note: The overall impact significance score/points (SP) for each identified impact is calculated by multiplying magnitude, duration, and scale by the probability of all this happening.

SP = (Magnitude +Duration +Scale) x Probability

The impacts status can either be positive, negative or neutral.

Impact significance Ratings

Significance	Environmental Significance Points	Colour Code
Negligible	00-10	N
Very low	11-20	VL
Low	21-30	L
Medium	31-40	M
Medium-high	41-50	MH
High	51-60	H
Very high	61-75	VH

6.1 Environmental issues and Potential impacts

Environmental issues were raised through the site visits, informal discussions with the project team and specialists. All issues raised will be assessed in the specialist reports and will form part of the Environmental Impact Report. Additional issues raised during the public participation will be listed in the Final Scoping Report.

The following potential issues have been identified:

6.1.1 Vegetation Assessment

A vegetation impact assessment will be conducted to determine if there is any sensitive or endangered vegetation on the proposed site. Due to the size of the development, there will be a loss of vegetation during the construction phase of the project.

The Assessment will describe and assess the botanical sensitivity of the area. The terms of reference for this study required a baseline analysis of the flora of the property, including the broad ecological characteristics of the site.

The vegetation assessment will include the following:

- The significance of the potential impact of the proposed project, alternatives and related activities
 - with and without mitigation

- on biodiversity pattern and process at the site, landscape and regional scales.
- Recommended actions that should be taken to prevent or, if prevention is not feasible, to mitigate impacts.

6.1.2 Freshwater

Freshwater ecosystems were identified on desktop analysis, and due to the size and nature of the development, a wetland delineation assessment will be conducted.

The terms of reference for the wetland assessment are as follows:

- Literature review and assessment of existing information
- Site Assessment of the proposed activities and impact on the associated freshwater systems. This will include an assessment of the freshwater ecological condition, using river health indices such as in-stream and riparian habitat integrity, aquatic macro-invertebrates and riparian vegetation to determine set back lines and geomorphological condition of the streams, which will then determine the overall Eco status of the streams and provide data that will inform the General Authorisation or Water Use Licence Application of the project.
- Describe ecological characteristics of freshwater systems and compile report based on the data and information collected in the previous two tasks, describe ecological characteristics of the freshwater systems, comment on the conservation value and importance of the freshwater systems and delineate the outer boundary of the riparian zones/riverine corridors.
- Evaluate the freshwater issues on the site and propose mitigation measures and measures for the rehabilitation of the site as well as setback lines for future development.

6.1.3 Heritage

The possible impact on heritage resources has been identified as a possible environmental impact as a result of the development. A Heritage Impact Assessment has been conducted on the site.

The terms of reference for the heritage and archaeological study are as follows:

- To determine whether there are likely to be any important archaeological sites or remains that might be impacted by the proposed development;
- To identify and map archaeological sites/remains that might be impacted by the proposed development;
- To assess the sensitivity and conservation significance of archaeological sites/remains in the inundation area;
- To assess the status and significance of any impacts resulting from the proposed development, and

- To identify measures to protect any valuable archaeological sites/remains that may exist within the estimated inundation area

6.1.4 Other Issues Identified

Any further issues raised during the public participation process or by the Competent Authority not mentioned in this section, will be dealt with during the EIA phase.

7. PUBLIC PARTICIPATION PROCESS

A public participation process is an essential component of the Scoping/EIA process. Through public participation, possible issues and concerns around the proposed activity – the proposed housing development – can be raised and addressed by the project team during the Scoping/EIA process. Public participation can also assist with the identification of alternative means of fulfilling the general purpose of the application.

The public participation process is rigorously prescribed by the regulations contained in Chapter 6 of the 2017 NEMA EIA Regulations. These regulations have and will continue to govern the public participation process for this application.

In accordance with the requirements of the EIA Regulations, possible Interested and Affected Parties (I&APs) were identified. These I&APs will be notified of the application process and provided with an opportunity to formally register as I&APs. Notification, including a brief Background Information Document, will be undertaken by registered letter, fax or email

Public participation can be defined as the identification of issues in the public domain. The objectives of public participation in an EIA are to provide sufficient and accessible information to I&APs in an objective manner to assist them to:

- During the Scoping Phase.
- Identify issues of concern and provide suggestions for enhanced benefits and alternatives.
- Contribute local knowledge and experience.
- Verify that their issues have been considered.
During the Impact Assessment.
Verify that their issues have been considered either by the EIA Specialist Studies, or elsewhere.
- Comment on the findings of the Environmental Impact Assessment Report (EIAR), including the measures that have been proposed to enhance positive impacts and reduce or avoid negative ones.

The public participation process was designed to comply with the requirements of the EIA Regulations.

The description of the public participation process itemizes the steps and actions undertaken to date and as appropriate at this stage of the project.

All identified I&APs were given 30 days in which to register as an I&AP and lodge with MGTD Environmental their comments, issues or suggestions pertaining to the application. At the same time, the Draft Scoping Report (this report) was made available to identified I&APs for review and comment.

7.1 Identification and registration of Interested and Affected Parties

The NEMA Regulations distinguishes between I&APs and registered I&APs. The former, as contemplated in NEMA include:

“(a) any person, group of persons or organisation interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity”

However, RI&AP is an I&AP whose name is recorded in the register opened for an application. In terms of the Regulations an EAP must open and maintain a register which contains the names, contact details and addresses of:

- (a) All persons who have submitted written comments or attended meetings with the applicant or EAP;
- (b) All persons who have in writing requested the applicant or EAP managing the application, for their names to be placed on the register; and
- (c) All organs of state which have jurisdiction in respect of the activity to which the application relates.

As per the EIA Regulations, future consultation during the Impact Assessment phase will only take place with registered I&APs. All stakeholders who were involved in the consultation process will be added to the register as the I&AP register will be updated throughout the EIA process.

Key stakeholders and other I&APs were identified, and their contact details incorporated into a project database. They included local, provincial and national government authorities, ward councillors, rate payers, conservation authorities, service/utility providers, local businesses, community-based organisations, environmental interest groups, affected landowners/users and neighbours.

The direct mailing list for this EIA consists of individuals and organisations from both within the project area and beyond. Appendix 1 contains the details of all identified I&APs who will be notified of the public participation process. All stakeholders will be invited to review this Draft Scoping Report.

7.2 Project announcement

The opportunity to participate in the EIA will be announced as follows:

- Advertisements in local newspaper (Randfontein Herald). See Appendix 2.4
- Background Information was compiled and emailed to all key stakeholders. See Appendix 2.2
- All I&APs who registered following the project announcement adverts were sent Background Information.
- Placement of an on-site notice board at various locations. See Appendix 2.3

7.3 Obtaining and dealing with comments from I&Aps

During the Scoping Phase, the public participation process enables Interested and Affected Parties to:

- Understand the context of the EIA;
- Become informed and educated about the proposed project and its potential impacts;
- Raise issues of concern and suggestions for enhanced benefits;
- Verify that their comments, issues of concern and suggestions have been recorded;
- Assist in identifying reasonable alternatives; and
- Contribute relevant local information and traditional knowledge to the environmental impact assessment process.

Comments raised by I&AP's during the review period for the Draft Scoping Report (14 October 2020-14 November 2020), as well as responses to these comments by the project team, were included in a Comments and Responses Report to be appended to the Final Scoping Report. The Comments and Responses Report include a summary of the key issues and concerns raised and the manner in which the project team proposes to address them. Where issues and concerns relate to substantive components of the project proposal, the contents of the Final Scoping Report has been amended to address these where relevant. The Final Scoping Report is being submitted for review by registered stakeholders before being submitted to GDARD.

GDARD will then make a decision whether all potential impacts and issues associated with the proposed development have been satisfactorily "scoped" or investigated. The GDARD will also decide whether the Plan of Study for EIA describes an EIA process which will effectively determine the significance of the impacts associated with the various reasonable and feasible alternatives; and whether the EIA process will effectively determine what is the "Best Practicable Environmental Option" for the site.

During the EIR phase, the public participation process assists I&AP to:

- Contribute relevant information and local and traditional knowledge to the environmental impact assessment process;
- Verify that their issues and suggestions have been evaluated and considered in the environmental investigations and feedback has been provided;
- Comment on the findings of the EIA; and
- Identify further issues of concern from the findings of the EIA.

7.4 Comments and Responses Report

Issues and concerns raised by I&APs have been captured (Appendix 2.5) in a Comments and Responses Report (CRR). The CRR will be updated to include

additional inputs from I&APs as the EIA process proceeds, and as the findings of the EIA become available.

7.5 Circulation of the Draft Scoping Report for public review and comment

The purpose of this DSR is to provide commenting authorities and I&APs with detailed project information and to show how the EAP has identified project alternatives issues and potential impacts to be further investigated during the Impact Assessment. In addition, the DSR enables I&APs to verify that their contributions have been captured, understood and correctly interpreted. Furthermore, the findings of the Scoping have been used to define the terms of reference for the specialist studies to be conducted during the Impact Assessment.

I&APs were notified of the availability of the DSR and provided with opportunity to comment, as follows:

- The DSR was uploaded to MGTD ENVIRONMENTAL's website/Dropbox where members of the public can download the report for review and comment.
- MGTD ENVIRONMENTAL promoted the I&APs who do not have access to the internet to submit comments telephonically.
- The EAP undertook the following:
 - Disseminate information regarding the proposed project to I&APs.
 - Provide I&APs with an opportunity to interact with the relevant project team members.
 - Discuss the studies to be undertaken during the Environmental Impact Assessment.
 - Supply more information regarding the EIA process.
 - Answer questions regarding the project and the EIA process.
 - Receive input regarding the public participation process and the proposed development.
 - Provide I&APs not previously registered on the project database with an opportunity to be formally registered and, therefore, be informed of progress for the remainder of the project.

7.6 Notification of submission of the Final Scoping Report

Following the updating of the DSR with comments and issues raised by I&APs during the public review process, the Final Scoping Report has been compiled and submitted to GDARD, with a request that the EIA can proceed to the next phase, viz. the Impact Assessment phase.

Notification letters will be sent to all registered I&APs in January 2020 notifying the public of the submission of the Final Scoping Report to GDARD for approval. The Final Scoping Report will be uploaded to MGTD ENVIRONMENTAL's website or dropbox where members of the public can download the report for review and comment.

Once GDARD has accepted the Final Scoping Report and Plan of Study for the Impact Assessment, the Impact Assessment will commence.

8. PLAN OF STUDY FOR EIA

In accordance with Appendix 2 of GN No.326 (7 April 2017), a plan of study has been drafted, to outline an approach within which the EIA phase of the proposed development will be undertaken. The purpose of this Plan of Study for Environmental Impact Assessment is to ensure that the EIA Report produced satisfies the requirements of the GDARD, by ensuring that the Department is satisfied with the aspects discussed in this document, before the study commences.

The following steps will be undertaken as part of the EIA phase:

- Alternatives will be further investigated, in a re-iterative manner, so as to avoid or minimize negative impacts and maximize potential benefits;
- Statements regarding the potential significance of residual impacts, taking into account proposed mitigation measures will be provided in the EIA;
- An Environmental Management Programme (EMP) covering construction, operational and decommissioning phases of the proposed development will be prepared after input from specialists, incorporating recommendations for mitigation, monitoring and evaluation are received.

8.1 Key issues and impacts identified during the Scoping Process

Land Use

- Change in land use and impact on sense of place

Ecology

- Loss/Destruction of Natural habitat
- Habitat Fragmentation
- Displacement of Faunal Species
- Introduction/Invasion of by Alien Species

Hydrology (Groundwater and Surface Water)

- Contamination of groundwater (e.g. chemicals, fuel, waste and sedimentation)
- Erosion of Wetlands
- Decreased Water Quality
- Sedimentation

Soils and Geology

- Loss/Disturbance of topsoil
- Dolomitic effects

Heritage

- Disturbance/Destruction of archaeological sites or historic structures (e.g. religious active site)

Safety and Security

Waste Management and Disposal

Employment Opportunities

- Opportunities for Local Contractors and SME's
- Potential Markets for informal Trading

Traffic

- Increase in traffic

Noise

- Increase in noise;

Air quality impacts

8.2 Activities to be undertaken during the EIA Process

8.2.1 Public Participation Process

Public participation will continue throughout the EIA Phase of the project. The following will be undertaken:

- Informing I&APs of the GDARD acceptance of the Scoping Report;
- Maintenance of the I&AP Register;
- Updating the Comments Register;
- Notifying I&APs of the availability of the draft Environmental Impact Report; and;
- Notifying I&APs of the Environmental Authorisation.

8.2.2 Specialists Studies Identified

Specialists studies will be conducted to give a more detailed description of the study area, consider Interested and Affected parties concerns and to determine the environmental issues and what alternatives there might be. This requires the appointment of specialists to gather baseline information in their fields of expertise, and to assess the impacts and make recommendations to mitigate negative impacts and optimise benefits. The resulting information is synthesised into the EIR.

The following environmental specialist's studies will be conducted:

- **Heritage Impact Assessment Study;**
- **Ecological Assessments (Vegetation Assessment, Faunal Assessment and Wetland Assessment); and**
- **Heritage Impact Assessment**

The above studies will be supported by the following Engineering Studies:

- **Geotechnical Investigations;**
- **Traffic Impacts Assessment;**
- **Socio Economic and Market Assessment; and**
- **Bulk Services Report.**

These specialist's studies with the criteria used to assess the environmental impacts will be used to describe the overall impacts the development might have on the environment, what mitigation measures should be used to decrease the environmental impacts and to discuss any alternatives.

8.2.3 Assessment of Environmental Issues and Alternatives

As a means of determining the significance of various impacts that can or may be associated with the proposed development, a series of assessment criteria will be used for each impact. These criteria an examination of the extent, duration, probability of the impact occurring, significance and magnitude status of the impact and scale of confidence level.

8.2.4 Consultation with authorities

GDARD and other stakeholders will continually be updated with project progress and will be notified as relevant issues arise.

Table 8: Key dates for involvement of the authorities

Authority	Subject and Date
GDARD	Project Registration,
GDARD	Submit Draft Scoping Report, October 2020
GDARD	Submit Final Scoping Report, November 2020
GDARD	Accepts/Reject scoping report in January 2021
GDARD	Accepts/ Reject EIR (February-March-April 2021)
GDARD	Issues decision, May/June 2021

8.2.5 Compilation of the Environmental Impact Report

The main purpose of this report is to gather and evaluate environmental information, so as to provide sufficient supporting arguments to evaluate overall impacts, consider mitigation measures and alternative options, and make a valued judgement in choosing the best development alternative. The EIR will be made available (electronically) for public and authority review. The availability of the report will be advertised in the local newspaper.

8.2.6 Environmental Management Plan (EMP)

The EMP informs the client and the technical team of the guidelines which will need to be followed during construction to ensure that there are no lasting or cumulative negative impacts of the construction process on the environment:

- The standards and guidelines that must be achieved in terms of environmental legislation.
- Mitigation measures and environmental specifications which must be implemented for all phases of the project in order to minimise the extent of environmental impacts, to manage environmental impacts and where possible to improve the condition of the environment.
- Provide guidance through method statements that are required to be implemented to achieve the environmental specifications.
- Define corrective action that must be taken in the event of non-compliance with the specifications of the EMP's.
- Prevent long-term or permanent environmental degradation.

The draft EMP will be compiled as per EIA Regulation guidelines and be submitted with the Environmental Impact Report for approval by GDARD.

8.2.7 Programme for Assessment Phase

Specialists will be appointed depending on GDARD requirements in response to this Scoping Report. The following programme (Table 9) is proposed but depends on GDARD'S decision regarding the final Scoping Report and Plan of Study for EIA.

Table 9: Programme for Assessment Phase

Activity	Target Dates
Submit EIA Application Form and Draft Scoping Report to GDARD	October 2020
Finalise Scoping Report and submit to GDARD for approval	November 2020
Acceptance of Final Scoping Report by GDARD	December 2020/January 2021

Undertake a detailed impact assessment process, assessing alternatives, and listing potential mitigation measures.	November -January 2021
Draft EIR and EMP	November -January 2021
Release draft EIR to the Public (EIR Public Participation)	January 2021-February 2021
Document the findings of the Impact Assessment into an Environmental Impact Report (Final EIR)	February 2021
Submit Final EIR to GDARD for Approval, GDARD checks for completeness and issues a decision/authorisation	February 2020-May 2021

9. CONCLUSION

The proposed development on the remainder of Portion 83 of the Farm Middelvlei 255 IQ, remainder of Portion 136 of the Farm Luipaardsvlei 243 IQ and Portion 68 of the Farm Luipaardsvlei 243 IQ could impact on the biophysical and social environments and therefore require environmental authorization in terms of the NEMA.

This report presents the Scoping Study undertaken as part of the EIA process for the proposed Low-cost Mixed-use housing development. The Scoping Study includes a technical investigation and a public participation component to identify key issues associated with the project. To date no fatal flaws and issues have been raised. It is recommended that the EIA process proceeds to the EIR phase.

The EIA phase will determine the most feasible alternatives according to the results of the specialist studies as well as the input from all I&APs and key departments. Detailed impacts will be determined accordingly, and appropriate management and mitigation measures provided. The following steps are envisaged for the remainder of the EIA process:

If the final Scoping Report is accepted by GDARD, the project would proceed onto the next phase of the EIA process. The specialist studies mentioned above will be conducted in the next phase of the EIA in order to assess the key potential impacts identified during the Scoping Study.

The findings of the specialist studies and other relevant information will be integrated into a Draft EIAR, which will be published for a 30-day comment period. A notification letter will be sent to all registered I&APs to inform them of the release of the Draft EIAR and where the full report can be reviewed. All the comments received will be collated into a Comments and Responses Report that will be included in the Final EIAR. The Final EIAR will be submitted to GDARD for decision-making.

GDARD's Decision on Application will set out the decision, the reasons for the decision and any conditions of the decision. All Registered I&APs will be informed of GDARD's decision and the statutory appeal process, during which any I&AP may appeal against any aspect of the Decision.

10. REFERENCES

- DWAF. (2005). A practical field procedure for identification and delineation of wetlands and riparian areas. Department of Water affairs and Forestry. Pretoria. South Africa.
- DWAF. (2008). Updated manual for the identification and delineation of wetlands and riparian areas. Department of Water affairs and Forestry. Pretoria. South Africa.
- South African National Biodiversity Institute. (2006-2018). The Vegetation Map of South Africa, Lesotho and Swaziland, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors), Online, <http://bgis.sanbi.org/Projects/Detail/186>.
- National/ Provincial documents & sources:
- Rand West City Integrated Development Plan. (2020/2021)
- West Rand District Municipality Spatial Development Framework. (2013)

Appendix 1: EAP CVs

CURRICULUM VITAE

PERSONAL INFORMATION

Surname : **Duma**
Name : **Thobile**
Nationality : **South Africa**
Mobile Phone Number : **083 328 0989**
Telephone Number : **011 682 1947**
Email address : **tduma@mgtdenvironmental.co.za/mgtdcc@gmail.com**

KEY EXPERIENCE

- Project Management of various medium and large-scale infrastructural and environmental Projects
- Environmental Impact Assessment processes;
- Integrated Environmental Management including the undertaking of environmental impact assessment entailing the compilation of environmental impact reports, assistance with the management aspects of these projects as well as facilitation of public participation processes
- Environmental Advisory Services and Strategic Environmental Management including environmental scans and environmental feasibility studies
- Environmental Management Programmes for the construction and operational phases of infrastructure developments

Work Experience

- Environmental Co-ordinator- South African National Roads Agency (SANRAL)
- Environmental Advisor-Eskom Distribution (Central Region),
- Environmental Specialist – Sasol Gas and
- Environmental Consultant for Kalahari Survey Solutions and products and MGTD Environmental CC.

QUALIFICATIONS

Rhodes University

Master of Business Administration (MBA)

University of Kwa-Zulu Natal

MSc (Engineering)

BSc –Honours (Microbiology)

BSc (Microbiology and Biochemistry)

PROFESSIONAL MEMBERSHIP: Registered as a Professional Scientist with South Africa Council for Natural Scientist Professions (SACNASP)

PERSONAL INFORMATION

Surname : Mmbengwa
Name : Mukoni
Nationality : South Africa
Mobile Phone Number : 073 9637 939
Email address : mmukoni@mgtdenvironmental.co.za

KEY EXPERIENCE

Environmental Impact Assessment processes; and
Environmental Management Programmes for the construction and operational phases of infrastructure developments; **Fieldwork**; and Public **Participation**.

WORK EXPERIENCE

Environmental Officer – MGTD Environmental cc

Key Projects involved in:

- Prieska 2 and 3 20MW PV plant Environmental Impact Assessment
- Prieska 75MW PV plant Environmental Impact Assessment
- Proposed Syferfontein development Integrated Waste Management Plan
- Proposed North West University Student Accommodation Feasibility Assessment

QUALIFICATIONS

Tertiary Education

- B-Tech: Environmental Sciences (currently)
- National Diploma: Environmental Sciences

Appendix 2: Public Participation Documents

Appendix 2.1 Public Participation Plan

Request for approval of the Public Participation Plan

Subject: RE: Why did the chicken die?

mail.google.com/mail/u/0/?tab=rm&ogbl#search/public+participation+plan/QgrclHsNjCfjnBDLpVRNqrqsVfmThZLpL?compose=new

Gmail public participation plan

Compose

Inbox 893

Starred

Snoozed

Important

Chats

Sent

Drafts 25

All Mail

Spam 43

Trash

Categories

Social 28

Updates 716

Forums 1

Promotions 176

Informal Settlements 4

Me

Notes

Personal 37

More

MUKHOLA, STEVEN (GDARD) <STEVEN.MUKHOLA@gauteng.gov.za>

Fri, Jul 31, 6:23 PM

to BONISWA, MULALO, me

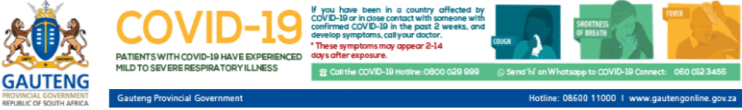
Dear Thobile

Please take note that your plan is accepted and subject to the following :

1. No public meeting
2. No distribution of reports to Interested and Affected parties
3. EIA application must be done through online system

This email must be included in the PPP report

Regards



COVID-19 PATIENTS WITH COVID-19 HAVE EXPERIENCED MILD TO SEVERE RESPIRATORY ILLNESS

If you have been in a country affected by COVID-19 or in close contact with someone with confirmed COVID-19 in the past 2 weeks, and develop symptoms, call your doctor. *These symptoms may appear 2-14 days after exposure.

GAUTENG PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

Call the COVID-19 Hotline: 0800 029 999 Send 'N' on WhatsApp to COVID-19 Contact: 060 052 3456

Gauteng Provincial Government Hotline: 05600 11000 | www.gautengonline.gov.za

Disclaimer:

The Gauteng Provincial Government does not take responsibility for Gauteng Provincial Government users' personal views. Gauteng Provincial Government services available online at www.gauteng.gov.za - The information contained in this communication from steven.mukhola@gauteng.gov.za sent at 2020-07-31 18:23:54 is confidential and may be legally privileged. It is intended solely for use by mgtdcc@gmail.com and others authorized to receive it. If you are not mgtdcc@gmail.com you are hereby notified that any disclosure, copying, distribution or taking action in reliance of the contents of this information is strictly prohibited and may be unlawful.

On Jul 30, 2020 7:59 PM, Thobile Duma <mgtdcc@gmail.com> wrote:

New Message

Type here to search

10:04 PM 10/20/2020

Appendix 2.2 Background Information Document

