

PALEONTOLOGICAL SITE VERIFICATION REPORT FOR THE PROPOSED EXPANSION OF THE RESERVOIR SYSTEM LOCATED ON THE REMAINDER OF PORTION 19909, WORCESTER, WESTERN CAPE.

Prepared For

Breede Valley Municipality

P Private Bag X3046,
Worcester,
6849

C 023 348 2802

E jsteyn@bvm.gov.za

Prepared By

Guillaume Nel Environmental Consultants

GNEC Contact Person

Mr Guillaume Nel / Ms Heloise Groenewald

A 45 Fabriek Street, Paarl, 7646

T 021 870 1874

F 021 870 1873

C 072 157 1321

E gn@gnec.co.za / hdp@gnec.co.za



21 September 2020

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF FIGURES	i
LIST OF TABLES	Error! Bookmark not defined.
1. INTRODUCTION AND BACKGROUND	1
1.1 Introduction	1
1.2 Background	1
1.3 Location	1
2. OVERVIEW OF SURROUNDING AIRPORTS	5
3. SITE INSPECTION.....	6
4. DISCUSSION OF POTENTIAL CIVIL AVIATION IMPACT	7
5. CONCLUSION OF CIVIL AVIATION VERIFICATION	8
6. REFERENCES	9

LIST OF FIGURES

FIGURE 1: LOCALITY MAP OF THE PROPOSED DEVELOPMENT SITE, WORCESTER, WESTERN CAPE.....	3
FIGURE 2: AERIAL IMAGE OF THE PROPOSED DEVELOPMENT SITE, WORCESTER, WESTERN CAPE.....	4
FIGURE 3: SITE PHOTO OF THE PROPOSED DEVELOPMENT SITE. PHOTO TAKEN IN A SOUTHERN DIRECTION.	6
FIGURE 4: PHOTO OF THE EXISTING ACCESS ROAD THAT WILL FORM PART OF THE PROPOSED DEVELOPMENT SITE. PHOTO TAKEN IN A NORTH WEST DIRECTION.	6

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Guillaume Nel Environmental Consultants (GNEC) has been appointed by Breede Valley Municipality to facilitate the Environmental Impact Assessment (EIA) Basic Assessment for the for the proposed reservoir expansion on the Remainder of Erf 19909, Worcester, Western Cape.

A Screening Tool Report has been generated for the proposed development. According to the screening tool report the Palaeontology Theme has a “High sensitivity” rating. Therefore, this site sensitivity verification report is compiled to determine whether a Palaeontology Compliance Statement or any additional studies will be required for the proposed development.

1.2 Background

The proposed development site is located just North of the N1 highway within Worcester. The property is situated adjacent to and North of the Golden Valley Casino as well as adjacent to and West of the Worcester Golf Club. The property boasts a total of 745365.5 m² in extent and consists predominately out of unchanged landscape with an existing reservoir system being located on the property. The property is zoned for Authority use.

The current reservoir system has been in existence for numerous years, providing the town of Worcester with potable water. In recent years, the town of Worcester has undergone rapid growth in terms of residential and commercial developments. As a result of this rapid growth, the bulk provision of infrastructure needs to be timeously planned and implemented to keep up with rising service delivery demands.

The applicant therefore proposes the construction of a new 20,0 ML reservoir at the existing Pre-Loads Reservoir site to increase the reservoir’s storage capacity. Both the proposed reservoir tank and pipeline will be located adjacent to the existing system, thus minimising the overall impact of the proposed development. A small pipeline, approximately 200 metres in extent, will be constructed, linking the new reservoir with the existing pipeline which runs to the town of Worcester.

Mention should be made that the access road will be rerouted adjacent and to the West of the new reservoir development. This access road will be used during the operational phase. It should be noted that the road will be approximately 203 metres in length.

At present, the existing Worcester Pre-Loads Water Reticulation system has insufficient storage capacity to supply the future developments within the area. The municipality also proposes the proposed development as a result of the recent drought conditions. Therefore, a need for the development of the proposed infrastructure is experienced. The proposed development will thus result in a positive socio-economic outcome for the area of Worcester.

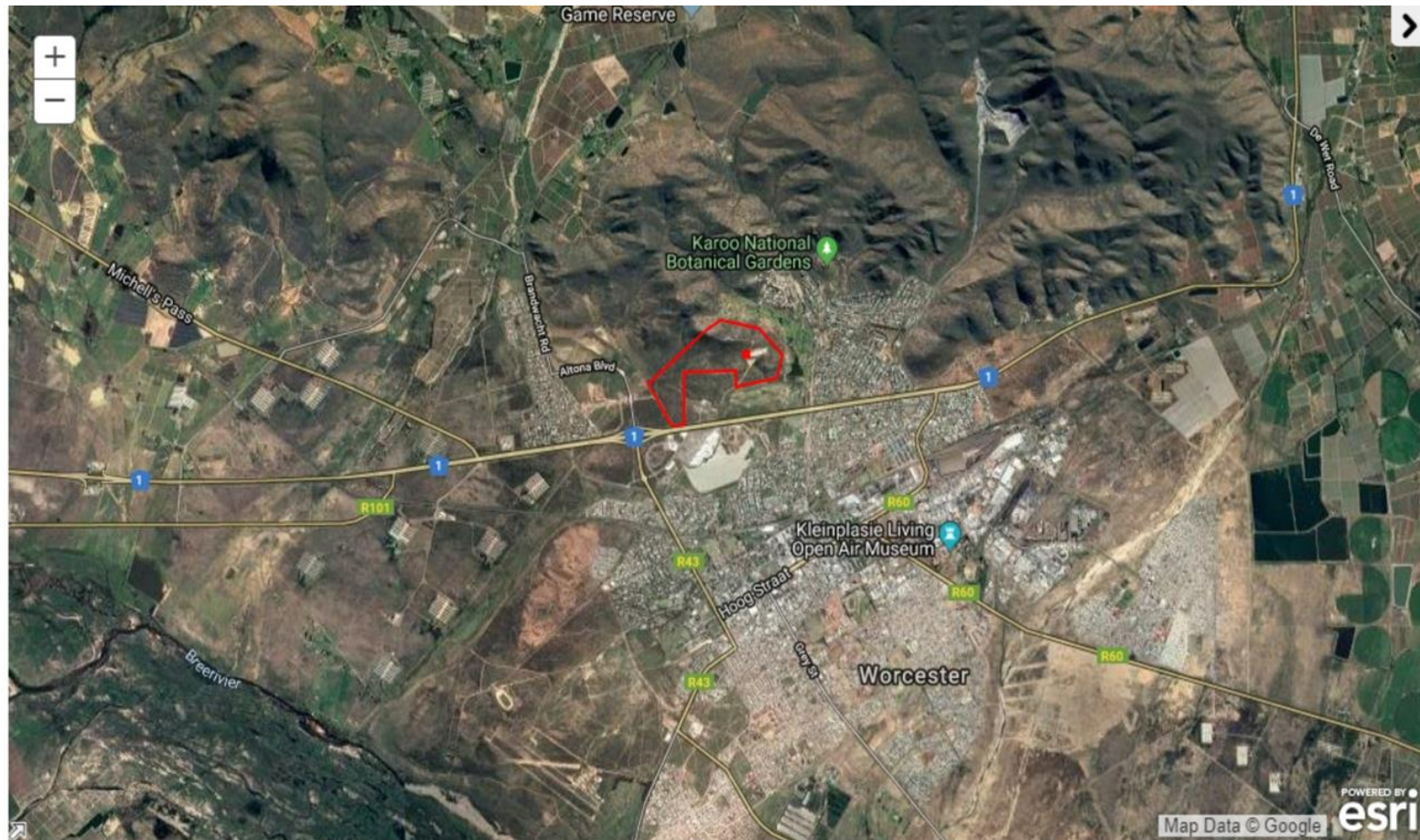
The proposed expansion will be contained to an area of approximately 5144m². The new additional reservoir tank will be located adjacent and to the West of the existing system. The development will furthermore connect to the existing reservoir system. The aim of the proposed development is to supply water for the future developments within Worcester.

The surrounding properties can be classified as residential, with the Worcester Golf Course being located to the East. Furthermore, there are commercial activities located to the South of the property.

1.3 Location

The proposed development site is located just North of the N1 highway within Worcester. The property is situated adjacent to and North of the Golden Valley Casino as well as adjacent to and West of the Worcester Golf Club. The property boasts a total of 745365.5m² in extent. The property consists predominately out of unchanged landscape with an existing reservoir being located on the property.

The surrounding areas can be classified as mixed-use, as the main objective of the reservoir is for storage and eventual distribution of the water to the surrounding residential, commercial and recreational activities within close proximity. Note should be made that the proposed development site is also surrounded by a large area of natural landscape. The property is currently zoned for Authority Use.





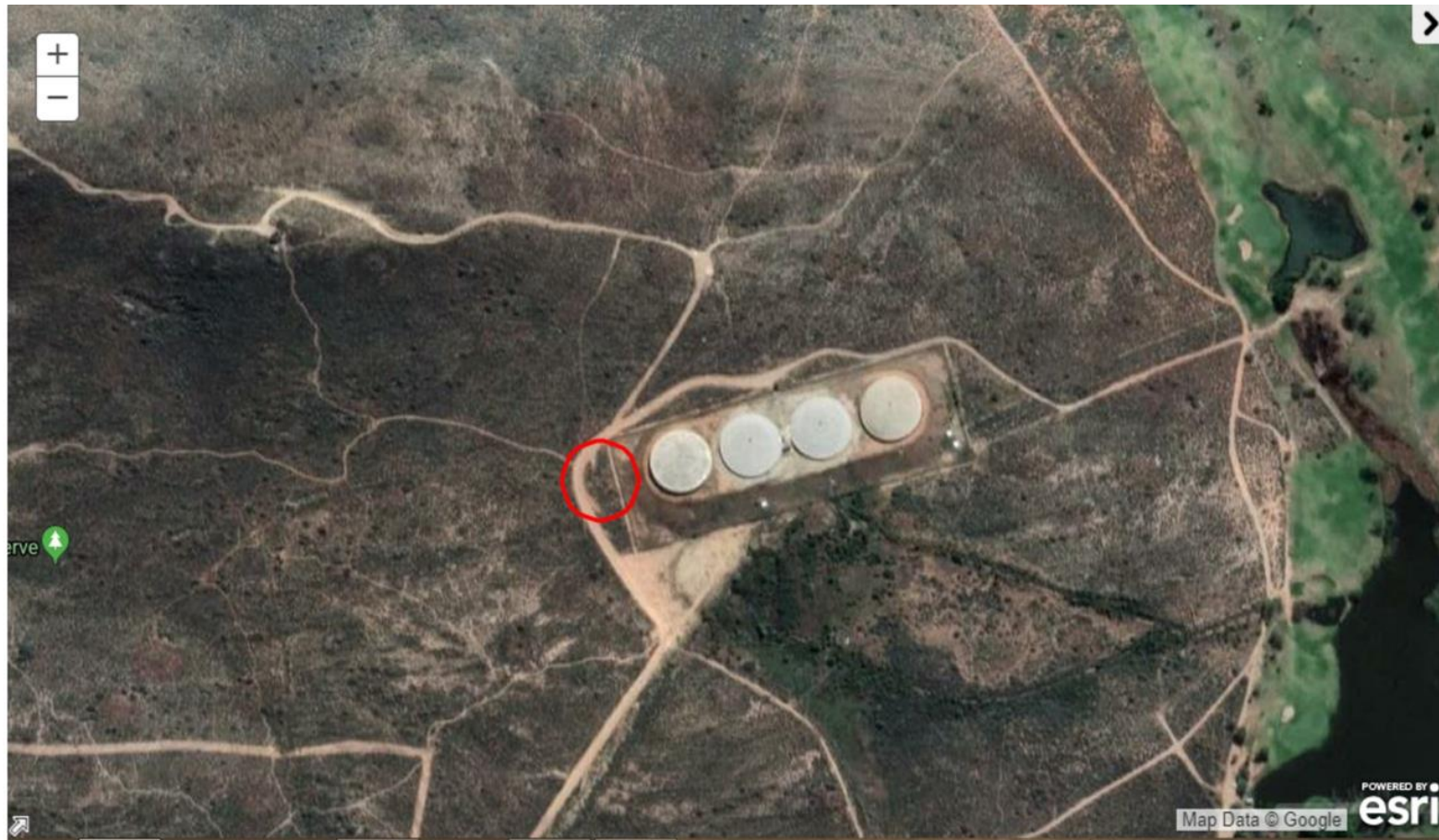
Locality Map of the Remainder of Portion 19909, Worcester, Western Cape.	 environmental consultants Tel: (021) 870 1874 Fax: 086 6933 802 Cell: 072 1571 321	
Source: Cape Farm Mapper		

FIGURE 1: LOCALITY MAP OF THE PROPOSED DEVELOPMENT SITE, WORCESTER, WESTERN CAPE.





<p>Aerial Image of the proposed new reservoir located on the Remainder of Portion 19909, Worcester, Western Cape.</p>	<p>Guillaume Nel  environmental consultants</p> <p>Tel: (021) 870 1874 Fax: 086 6933 802 Cell: 072 1571 321</p>	
<p>Source: Cape Farm Mapper</p>		

FIGURE 2: AERIAL IMAGE OF THE PROPOSED DEVELOPMENT SITE, WORCESTER, WESTERN CAPE.

2. OVERVIEW OF THE PROPOSED DEVELOPMENT SITE

Seeing that the screening tool report has labelled the palaeontology theme as having a high sensitivity, it is firstly important to determine the current state of the site and the possible palaeontological aspects that can be impacted upon.

Palaeontology is defined as: “the scientific study of life of the geologic past that involves the analysis of plant and animal fossils, including those of microscopic size, preserved in rocks” (The Editors of Encyclopaedia Britannica 2019).

Palaeontology is concerned with all aspects of the biology of ancient life forms: their shape and structure, evolutionary patterns, taxonomic relationships with each other and with modern living species, geographic distribution, and interrelationships with the environment (The Editors of Encyclopaedia Britannica 2019).

The proposed development site primarily consists of natural and unchanged landscape. It should however be noted that proposed expansion will be contained to an area of approximately 5144m². No other areas will be impacted by the proposed development.

It should be noted that no buildings or trees are located on the subject property. The only structures located on the subject property is the existing Pre-Loads reservoir system.

3. SITE INSPECTION

As mentioned above, during site inspection, it was evident that no structures other than the Pre-Load system is located on the subject property. No trees were observed on the property. In addition, no graves or any other archaeological and palaeontological sites are visible on the proposed development site.

The proposed development will only result in a reservoir tank (approximately 5144m²) being constructed on the proposed development site. Due to the proposed development footprint being so insignificant, the proposed development will not have any adverse impacts on its surroundings.



FIGURE 3: SITE PHOTO OF THE PROPOSED DEVELOPMENT SITE. PHOTO TAKEN IN A SOUTHERN DIRECTION.



FIGURE 4: PHOTO OF THE EXISTING ACCESS ROAD THAT WILL FORM PART OF THE PROPOSED DEVELOPMENT SITE. PHOTO TAKEN IN A NORTH WEST DIRECTION.

4. DISCUSSION OF POTENTIAL PALAEOLOGICAL IMPACTS

Due to the nature of the site and the proposed development, GNEC submitted a Notice of Intent to Develop (NID) application to Heritage Western Cape (HWC) in terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999) and the Western Cape Provincial Gazette 6061, Notice 298 of 2003.

The application was made to obtain confirmation from Heritage Western Cape on whether the proposed development will impact on any heritage resources. The NID was submitted in November 2019. Subsequently, Heritage Western Cape's response was that *"since there is no reason to believe that the proposed development will impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required"*.

Therefore, it is not expected that the proposed development will impact on any heritage resources. The proposed development will have an **insignificant** impact on palaeontology resources.

In addition to the above, an Environmental Management Programme (EMPr) has been compiled for the proposed development. The EMPr includes numerous mitigation measures to ensure that the proposed development does not impact on any heritage resources. Mitigations are also put in place to ensure the necessary measures will be taken should any palaeontological resources be discovered on the proposed development site. This is however highly unlikely.

It is therefore clear the proposed development will have an **insignificant** impact on palaeontological resources.

Due consideration has been given to the potential impact of the proposed development on any palaeontology resources. It is GNEC's professional opinion that all factors regarding the Palaeontology theme has been taken into account in this site sensitivity verification report. Therefore, as the proposed development will not have any impact on palaeontology resources, no additional assessments or compliance statements are required for the proposed development.

5. CONCLUSION OF CIVIL AVIATION VERIFICATION

Guillaume Nel Environmental Consultants (GNEC) was appointed by Breede Valley Municipality to facilitate the Environmental Impact Assessment (EIA) for the proposed reservoir expansion on the Remainder of Erf 19909, Worcester, Western Cape.

A Screening Tool Report has been generated for the proposed development. According to the screening tool report the Palaeontology Theme has a “High sensitivity” rating. Therefore, this site sensitivity verification report was compiled to determine whether additional studies will be required for the proposed development.

Confirmation has been obtained from Heritage Western Cape that the proposed development will not have any impact on heritage resources. A NID was submitted in November 2019, with Heritage Western Cape’s response was that “since there is no reason to believe that the proposed development will impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required”.

In addition to the above, an Environmental Management Programme (EMPr) has been compiled for the proposed development. The EMPr includes numerous mitigation measures to ensure that the proposed development does not impact on any heritage resources. Mitigation measures are also put in place to ensure the necessary actions will be taken should any palaeontology resources be discovered on the proposed development site. This is however highly unlikely.

The proposed development will therefore have an **insignificant** impact on palaeontological resources. Due consideration has been given to the potential impact of the proposed development on palaeontological resources. It is GNEC’s professional opinion that all factors regarding the palaeontology theme has been taken into account in this site sensitivity verification report. Therefore, as the proposed development will have no impact of any palaeontological resource, it is not required for any further studies to be undertaken.

6. REFERENCES

Department of Environmental Affairs. 2020. *Screening Tool Report for the Proposed Expansion of the Reservoir System on the Remainder of Erf 19909, Worcester, Western Cape.*

The Editors of Encyclopaedia Britannica 2019, *Paleontology, Britannica*, viewed 26 August 2020, <<https://www.britannica.com/science/paleontology>>.