

**PHASE 1 HERITAGE IMPACT ASSESSMENT OF THE SITE FOR
THE PROPOSED ESTABLISHMENT OF FUMANI ORCHARD
PLANTATION ON FARM IRELAND 210 MT, AT KA-DINGA
VILLAGE, WITHIN COLLINS CHABANE LOCAL
MUNICIPALITY, VHEMBE DISTRICT MUNICIPALITY, LIMPOPO
PROVINCE**

24 April 2022

**Prepared for
Biomental Services**

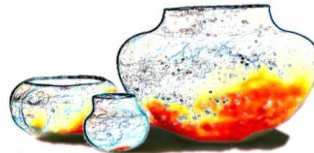
Contact Person: Tiyiselani Macebele

Mobile: 068 321 4288

e-mail: macebele.tiyiselani@yahoo.co.nz

**On behalf of
Tinyiko Lourence Chauke**

Prepared by



**Ndalama
Heritage Consulting**

**Author: Ms Dolphin Mabale
ASAPA Member**

Mobile: 076 310 7581

e-mail: dolphin.mabale@gmail.com

Declaration of interest

I, Dolphin Mabale, declare that -

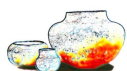
- I act as an independent specialist;
- I am conducting any work and activity relating to the proposed establishment of Fumani Orchard Plantation on Farm Ireland 210-MT, at Ka-Dinga Village within Collins Chabane Local Municipality of Vhembe District Municipality, Limpopo Province in an objective manner, even if this results in views and findings that are not favourable to the client;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have the required expertise in conducting the specialist report and I will comply with legislation, including the relevant Heritage Legislation (National Heritage Resources Act no. 25 of 1999), the Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment (SAHRA and the CRM section of ASAPA), regulations and any guidelines that have relevance to the proposed activity;
- I have not, 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;
- All the particulars furnished by me in this declaration are true and correct.



.....


Signature of Specialist

24 April 2022

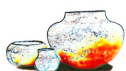


Expertise of the Specialist

Report Type:	PHASE 1 HERITAGE IMPACT ASSESSMENT OF THE SITE FOR PROPOSED ESTABLISHMENT OF FUMANI ORCHARD PLANTATION ON FARM IRELAND 210 MT, AT KA-DINGA VILLAGE, WITHIN COLLINS CHABANE LOCAL MUNICIPALITY, VHEMBE DISTRICT MUNICIPALITY, LIMPOPO PROVINCE
Project Name:	PROPOSED ESTABLISHMENT OF FUMANI ORCHARD PLANTATION ON FARM IRELAND 210 MT, AT KA-DINGA VILLAGE, WITHIN COLLINS CHABANE LOCAL MUNICIPALITY, VHEMBE DISTRICT MUNICIPALITY, LIMPOPO PROVINCE

Name	Responsibility	Signature	Date
<p>Ms Dolphin Mabale [ASAPA Member]</p> <p>PhD (Heritage Studies) - University of the Witwatersrand (Current studies) MA (Anthropology) - University of Venda Postgraduate Diploma in Arts (Heritage Studies) - University of the Witwatersrand Honours Bachelor of Arts (Archaeology) - University of Venda BA (Anthropology and Archaeology) - University of Venda</p>	Report writer		24 April 2022

Management summary



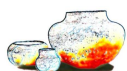
Ndalama Heritage Consulting was appointed by Biomental Services on behalf of Tinyiko Lourence Chauke to conduct a survey and specialist input for the area of the proposed establishment of Fumani Orchard Plantation on Farm Ireland 210-MT, at Ka-Dinga Village within Collins Chabane Local Municipality of Vhembe District Municipality, Limpopo Province. The investigation was conducted on the 2nd of April 2022. The scope of the survey was to investigate for the presence of heritage or archaeological materials on the proposed development site.

The findings are summarized as follows;

- No structures older than 60 years, graves or any palaeontological remains were identified.
- No heritage resources as described under Section 3 of the national heritage Resource Act (25 of 1999) were identified.
- Development can go ahead without any further mitigation.

It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal materials be revealed on the sites during agricultural activities, such activities should be halted, and a cultural/archaeological heritage specialist notified in order for an investigation and evaluation of the finds to take place.

From an archaeological and cultural heritage resources perspective, we recommend LIHRA to approve the project as planned without any further heritage mitigation.

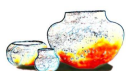


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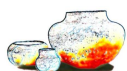
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1. INTRODUCTION

This report on a heritage impact assessment of the proposed establishment of Fumani Orchard Plantation on Farm Ireland 210-MT, at Ka-Dinga Village within Collins Chabane Local Municipality follows preliminary desktop surveys, and field observations, and was compiled on the 24th of April 2022. The site visit was conducted on the 2nd of April 2022. The report was commissioned by Biomental Services on behalf of Tinyiko Lourence Chauke.

2. SITE DESCRIPTION AND SITE LOCATION



Figure 1: Locality map

The study area is situated 5km east of the town of Malamulele at Ka-Dinga Village within the Jurisdiction of Collins Chabane Local Municipality, Limpopo Province. (Refer to *Appendix A: Project Locality*). The Study area is located at Farm Ireland 210 LT of SG Code (T0LT00000000021000000).

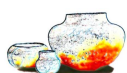
The site is situated 1.9 km eastward of the R81 road and traversed by D3647 road (an un-surfaced road) connecting with R81 road. The study site is largely vacant land utilised for communal grazing of livestock (Cattles, goats, sheep). The central co-ordinates of the site are 23° 3'12.00S. 30° 41'44.40 E

3. NATURE OF PROPOSED ACTIVITIES

The proposed Fumani Orchard plantation will provide economic stimulation within the Collins Chabane Local Municipality, through demands of goods and services associated with increased agricultural production. The establishment will also make a substantial contribution to the Collins Chabane Municipality rates base, improving the capacity for service delivery to residence in the respective municipality and also make contribution to South Africa gross domestic product (GDP), and contributes significantly to the country tax base and South African food security. It is envisaged that additional permanent or temporal employment opportunities will be created and will assist in skills development to local communities. The employment opportunities to be generated at Fumani Orchard will improve the buying power of individuals employees in the local community, which in turn, may boost the local economy directly or indirectly and also improves the livelihood of the community.

The Collins Chabane Municipality IDP(2018/2019) highlighted and defined key sectors as Economic Growth Strategies (EGS) with potential to grow Local Economic Development (LED) in the Municipal area. The agricultural sector is identified as a key sector that can provides opportunity for economic growth and employment for the citizens within the municipality area.

Furthermore, the establishment of Fumani Orchard plantation will not only positively impact on a socio-economic level, but also transforms the ecological settings of the proposed area. One of the major ecological concerns in rural areas is deforestation as the main contributor to land degradation, soil erosion, land infertility exacerbated by environmental unfriendly human practices. It is noted that majority of households at Ka-Dinga relies on firewood and grass harvesting for domestic purposes. The demand for these resources for day-to-day needs have a



significant impact on the baseline line environment. The establishment of Fumani Orchard plantation will result in optimal land-use through best agricultural practices and methods for production and the protection of the ecosystem by reducing further degradation and erosion. Allocation of pierces of land in respect to the proposed application of 10ha at Farm Ireland 210 LT will assist in curtailing and reduce land degradation, deforestation and erosion.

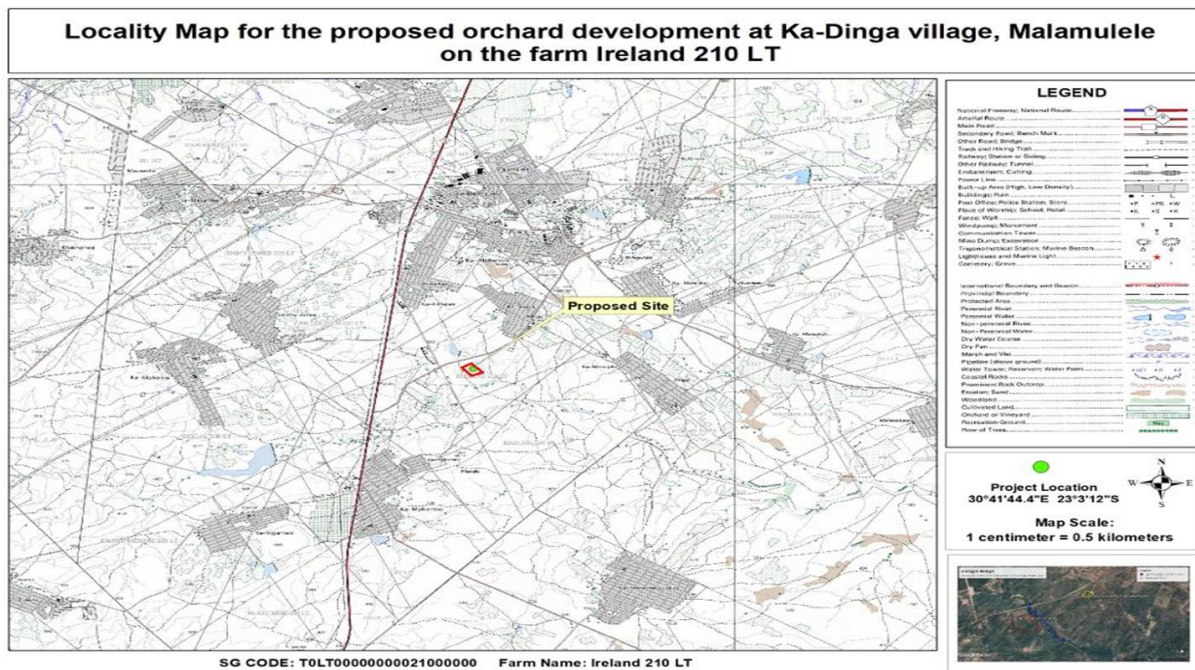
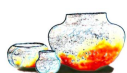


Figure 2: Topographic map of the proposed development site

4. TERMS OF REFERENCE

The terms of reference which then translate into a rationale and aims for the undertaking of this phase 1 culture and heritage impact assessment are:

- To identify all objects, sites, occurrences, and structures of an archaeological or historical nature (cultural heritage sites) located on the proposed development site.
- To assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic value
- To review applicable legislative requirements.



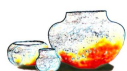
- To indicate possible future impacts on the cultural resources and suitable mitigation measures should these become real.

5. NATIONAL HERITAGE RESOURCE ACT (25 OF 1999)

4.1 National Estate

Section 3 of the National Heritage Resource Act (25 of 1999) lists a wide range of national resources that qualify as part of South Africa national estate. When conducting a Heritage Impact Assessment (HIA) the following heritage resources have to be identified:

- (a) Places, buildings structures and equipment of cultural significance
- (b) Places to which oral traditions are attached or which are associated with living heritage
- (c) Historical settlements and townscapes
- (d) Landscapes and natural features of cultural significance
- (e) Geological sites of scientific or cultural importance
- (f) Archaeological and paleontological sites
- (g) Graves and burial grounds including-
 - (i) ancestral graves
 - (ii) royal graves and graves of traditional leaders
 - (iii) graves of victims of conflict
 - (iv) graves of individuals designated by the Minister by notice in the Gazette
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered by in terms of the Human Tissue Act, 1983, Act No. 65 of 1983
- (h) Sites of significance relating to the history of slavery in South Africa
 - (i) moveable objects
 - (ii) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens
 - (iii) objects to which oral traditions are attached or which are associated with living heritage
 - (iv) ethnographic art and objects
 - (v) military objects



- (vi) objects of decorative or fine art
- (vii) objects of scientific or technological interest; and graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1
- (xiv) of the National Archives of South Africa Act, 1996, Act No. 43 of 1996.

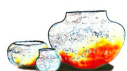
4.2 Section 38

There are a number of legislative frameworks that are relevant to the proposed activities but this report is prompted by the National Heritage Resources Act, Act 25 of 1999. In terms of Section 38 of this Act, subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as;

- (a) the agricultural of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) The agricultural of a bridge or similar structure exceeding 50 m in length;
- (c) Any development or other activity which will change the character of a site;
 - (i) Exceeding 5 000 m² in extent; or
 - (ii) Involving three or more existing erven or subdivisions thereof; or
 - (iii) Involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) The re-zoning of a site exceeding 10 000 m² in extent; or
- (e) Any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

5. SITE SIGNIFICANCE

The following guidelines for determining site *significance* were developed by SAHRA in 2003. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.



(a) Historic value

- Is it important in the community, or pattern of history?
- Does it have strong or special association with the life or work of a person, group or organization of importance in history?
- Does it have significance relating to the history of slavery?

(b) Aesthetic value

- Is it important in exhibiting particular aesthetic characteristics valued by a community or cultural group?

(c) Scientific value

- Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage?
- Is it important in demonstrating a high degree of creative or technical achievement at a particular period?

(d) Social value

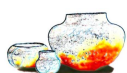
- Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?

(e) Rarity

- Does it possess uncommon, rare or endangered aspects of natural or cultural heritage?

(f) Representivity

- Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects?
- What is the importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class?
- Is it important in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality?



5.1 Degrees of Significance

This category requires a broad, but detailed knowledge of the various disciplines that might be involved. Large sites, for example, may not be very important, but a small site, on the other hand, may have great significance as it is unique for the region.

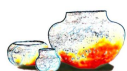
5.2 Significance rating of sites

(i) Low (ii) Medium (iii) High

This category relates to the actual artefact or site in terms of its actual value as it is found today, and refers more specifically to the condition that the item is in. For example, an archaeological site may be the only one of its kind in the region, thus its regional significance is high, but there is heavy erosion of the greater part of the site, therefore its significance rating would be medium to low. Generally speaking, the following are guidelines for the nature of the mitigation that must take place as Phase 2 of the project.

High

This is a do not touch situation, alternative must be sought for the project, examples would be natural and cultural landscapes like the Mapungubwe Cultural Landscape World Heritage Site, or the house in which John Langalibalele lived in. Certain sites, or features may be exceptionally important, but do not warrant leaving entirely alone. In such cases, detailed mapping of the site and all its features is imperative, as is the collection of diagnostic artefactual material on the surface of the site. Extensive excavations must be done to retrieve as much information as possible before destruction. Such excavations might cover more than half the site and would be mandatory; it would also be advisable to negotiate with the client to see what mutual agreement in writing could be reached, whereby part of the site is left for future research.



Medium

Sites of medium significance require detailed mapping of all the features and the collection of diagnostic artefactual material from the surface of the site. A series of test trenches and test pits should be excavated to retrieve basic information before destruction.

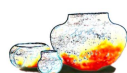
Low

These sites require minimum or no mitigation. Minimum mitigation recommended could be a collection of all surface materials and/ or detailed site mapping and documentation. No excavations would be considered to be necessary.

In all the above scenarios permits will be required from the National Heritage Resources Agency (SAHRA) as per the relevant law, namely the National Heritage Resources Act (Act 25 of 1999) destruction of any heritage site may only take place when a permit has been issued by SAHRA or its provincial equivalent should this exist.

Level	Significance	Possible action
National (Grade I)	Site of National Value	Nominated to be declared by SAHRA
Provincial (Grade II)	Site of Provincial Value	Nominated to be declared by PHRA
Local Grade (IIIA)	Site of High Value Locally	Retained as heritage
Local Grade (IIIB)	Site of High Value Locally	Mitigated and part retained as heritage
General Protected Area A	Site of High to Medium	Mitigation necessary before destruction
General Protected Area B	Medium Value	Recording before destruction
General Protected Area C	Low Value	No action required before destruction

Table 1: Grading and rating systems of identified heritage resources in terms of the National Heritage Resources Act (Act 25 of 1999)



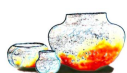
6. METHODS AND LIMITATIONS

- A desktop study of the history and archaeology of the region of the proposed development was conducted. This enabled a broader specialist perspective of the background history and archaeology of the area. The desktop study was conducted two-fold. Firstly, the academic literature pertaining to the region was perused and studied from various academic sources and databases, both hard copy and electronic. Secondly, a study of previous heritage and cultural impact assessments of the region was undertaken through SAHRIS.
- A physical survey of the proposed development site was conducted on the 2nd of April 2022. The photographs of the observations from the proposed site were taken with a Canon PowerShot SX430 IS camera.
- The geographic reference co-ordinates of the site were recorded with the employment of a Garmin 61LMT-S GPS. During a visit to the site on the 2nd of April, the area of proposed development site was examined. The survey entailed a detailed foot survey of the proposed site through acceptable standards.
- There were limitations to the survey of the proposed development site, namely, tall grass, shrubs, and bushes. Given the season of the year, coupled with favourable seasonal rainfall, this was to be expected.

7. ARCHAEOLOGICAL BACKGROUND OF THE DEVELOPMENT AREA

The discovery of new archaeological sites in the Limpopo province, more especially between the areas south of the Soutpansberg and the Phalaborwa-Gravelotte area presents an opportunity for the unraveling of the prehistory of that area, where limited archaeological research has been undertaken in the past. Recent archaeological research by Mathoho, et al (2016) was undertaken at various sites south of the Luvuvhu River, most notably at the Thomo Village to the south-east of the development site. The research continues for the purposes of the same author's doctoral studies. Before this, it was only at sites like Eiland and Silver Leaves near Tzaneen (Inskeep, 1978) that archaeological research was carried out in the intervening area mentioned. Both these sites are in the northeastern region of the Limpopo Province.

Extensive archaeological research in the Limpopo Province has been largely undertaken in the Mapungubwe region (Hanisch, 1980; Meyer, 1998; Huffman,



2000; Calabrese, 2000; Huffman, 2005), in the west of the province (Van Schalkwyk, 1988) in the Blouberg/Makgabeng area, the Kruger National Park (Meyer, 1988), as well as in the Soutpansberg with sites like Happy Rest and Klein Afrika (Prinsloo, 1974).

The development site in the vicinity and close proximity (approximately 25 km) of the identified Mutoti iron smelting site directly to the west. This significant regional site was discovered during a pre-feasibility study requested by the Department of Water Affairs and Forestry in 1993, to determine suitable areas for the development of a dam on one of three rivers originating from the Soutpansberg. The details of the pottery of one of the subsidiary sites, Mutoti 2, was analysed by the author in 2006 in an unpublished Honours research report. The same site is mentioned in detail in a subsequent unpublished Honours research report by Mathoho (2009) whose work had focused on the description of certain iron smelting sites south of the Luvuvhu River. According to both Mabale (2006, p. 1) and later Mathoho (2009, p. 5) the 35 ha site is unfortunately submerged in the Nandoni Dam and had to be totally destroyed by the agricultural of the dam wall, the water purification plant and necessary roads. Dates for the site ranged between A.D. 730 and A.D. 760.

8. SURVEY OBSERVATIONS

The proposed development site reconnaissance did not identify any archaeological or heritage resources. The proposed development is compatible with the proposed development. There is no structure older than 60 years, nor were there any graves observed on the proposed development site. Formal graves demarcated as such are a good 850m away from the proposed development site. The occurrence of shrubs, bushes and tall grass could have obscured any observable heritage or cultural resources on the surface.

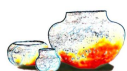




Figure 3: View of the proposed development site from the D3657 access road from Dinga Village



Figure 4: View of the proposed development site towards the south

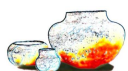




Figure 5: View of the proposed development site towards the west



Figure 6: Trees, grasses and shrubs characteristic of the proposed development site

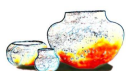




Figure 7: A general view of the proposed development site



Figure 8: A general view of the development site towards the north

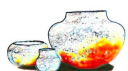




Figure 9: A westwards view of the site from the eastern boundary



Figure 10: Mopani shrubs characteristic of the development site

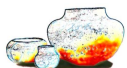
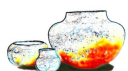




Figure 11: Marula tree in the southeast of the development site



Figure 12: Trees and shrubs characteristic of the development site



8. RECOMMENDATIONS

- No structures older than 60 years, graves or any palaeontological remains were identified.
- No heritage resources as described under Section 3 of the national heritage Resource Act (25 of 1999) were identified.
- Development can go ahead once the residents of the informal settlement have been relocated to an alternative residential zone.

It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal materials be revealed on the sites during agricultural activities, such activities should be halted, and a cultural/archaeological heritage specialist notified in order for an investigation and evaluation of the finds to take place.

From an archaeological and cultural heritage resources perspective, we recommend LIHRA to approve the project as planned without any further heritage mitigation.

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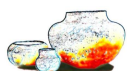
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Meyer, A. 1998. The Archaeological Sites of Greefswald and a History of Investigations. Pretoria. University of Pretoria.

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