

HERITAGE SCREENER

CTS Reference Number:	CTS16_041
Client:	EnviroAfrica
Date:	26 August 2016
Title:	Raisin Processing and Packaging Facility Keimoes, Northern Cape Palaeo-Desktop

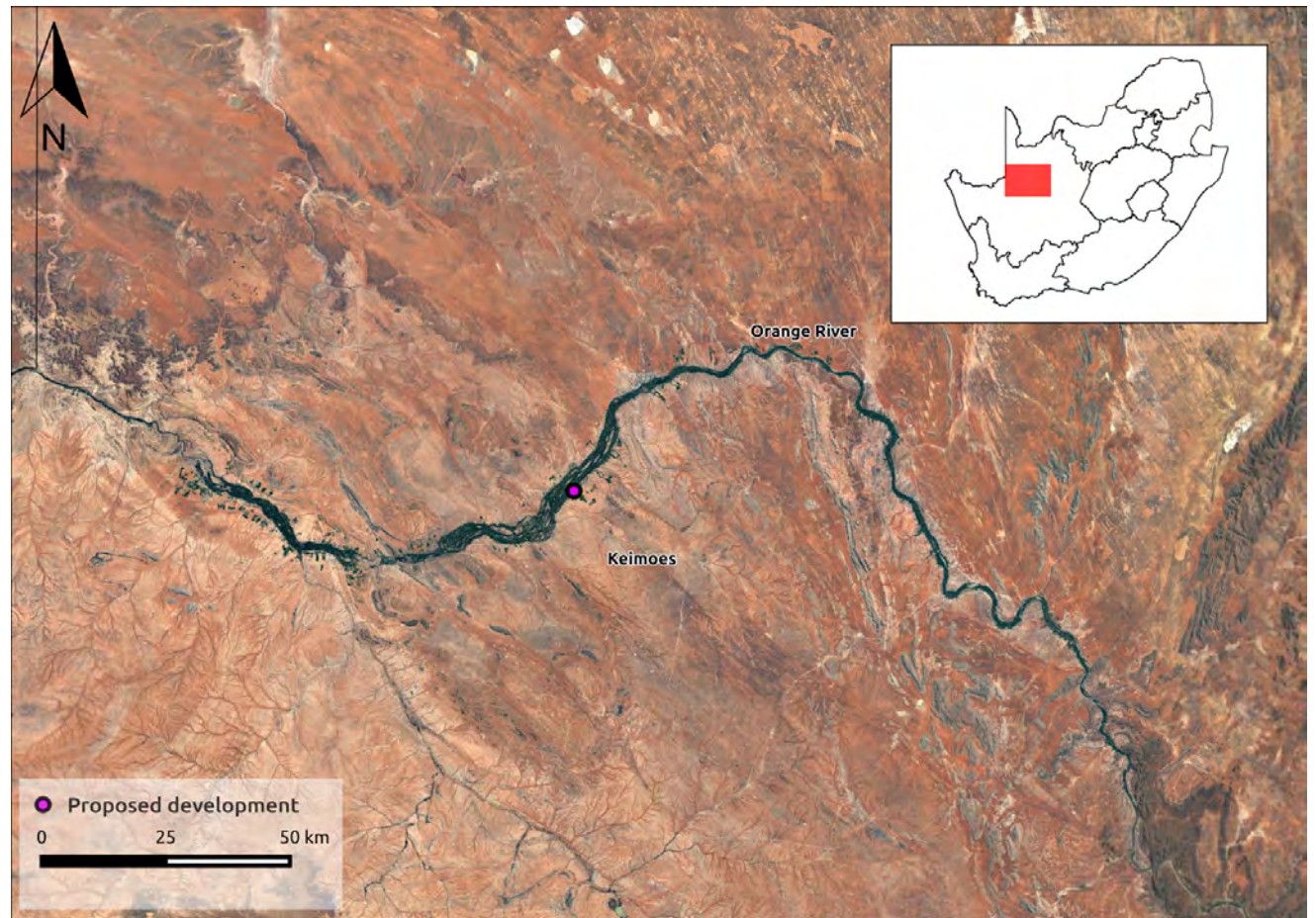


Figure 1a. Satellite image with proposed development area indicated in the Northern Cape Province.

Recommendation by CTS Heritage Specialists: (Type 1)	(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended, however it is recommended that a fossil finds procedure be implemented during the construction phase.
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1. Proposed Development Summary

The activity is for the establishment of a raisin processing and packaging facility on the Kanoneiland premises of Orange River Cellars. This will include the construction and installation of infrastructure as well as the required services and utilities to accommodate production of 8000 to 16 000 tons per annum.

2. Application References

Name of relevant heritage authority(s)	South African Heritage Resources Agency (SAHRA)
Name of decision making authority(s)	Northern Cape Department of Environment and Nature Conservation (DENC)

3. Property Information

Latitude / Longitude	-28.6502742243° S; 21.1152672262° E
Erf number / Farm number	Erf 151, Blaauwskop Settlement
Local Municipality	Kai !Garib
District Municipality	Siyanda
Previous Magisterial District	Gordonia
Province	Northern Cape
Current Use	Agricultural
Current Zoning	Agricultural zone II
Total Extent	298,729 m ²



4. Nature of the Proposed Development

Surface area to be affected/destroyed	33,266 m ²
Depth of excavation (m)	Unknown
Height of development (m)	NA
Expected years of operation before decommission	Unknown

5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	x
Triggers: Section 38(1) of the National Heritage Resources Act	
1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	
2. Construction of a bridge or similar structure exceeding 50m in length.	
3. Any development or activity that will change the character of a site-	
a) exceeding 5 000m ² in extent	x
b) involving three or more existing erven or subdivisions thereof	
c) involving three or more erven or divisions thereof which have been consolidated within the past five years	
4. Rezoning of a site exceeding 10 000m ²	
5. Other (state):	

6. Additional Infrastructure Required for this Development

<p>It is proposed that there should be a:</p> <ul style="list-style-type: none"> -Pre-clean Line (6 tons/h) -Wet Processing Line (6 tons/h) -Bulk Packaging Line (6 tons/h) <p>On the property there will be bulk raw material stores constructed that have the capacity to store 2664 raisin bin positions and 7 bins high. Buildings will be constructed for process and packaging, fumigation facilities, bin processing, admin, ablution and a workshop for forklift repairs and security facilities.</p>
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7. Mapping (please see Appendix 2 and 3 for a full description of our methodology and map legends)

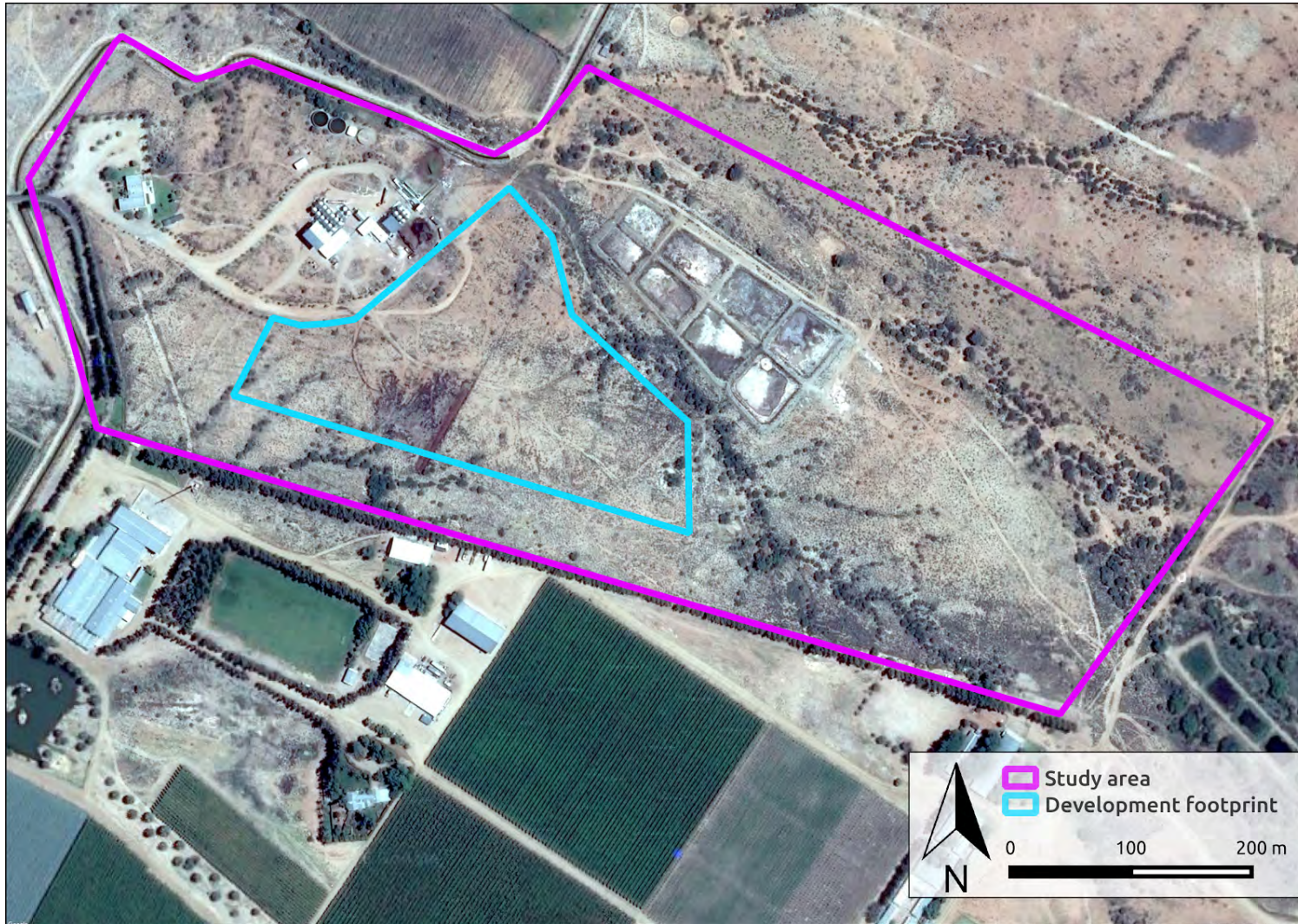


Figure 1b. Overview Map. Satellite image indicating the proposed area for the raisin facility (development footprint).



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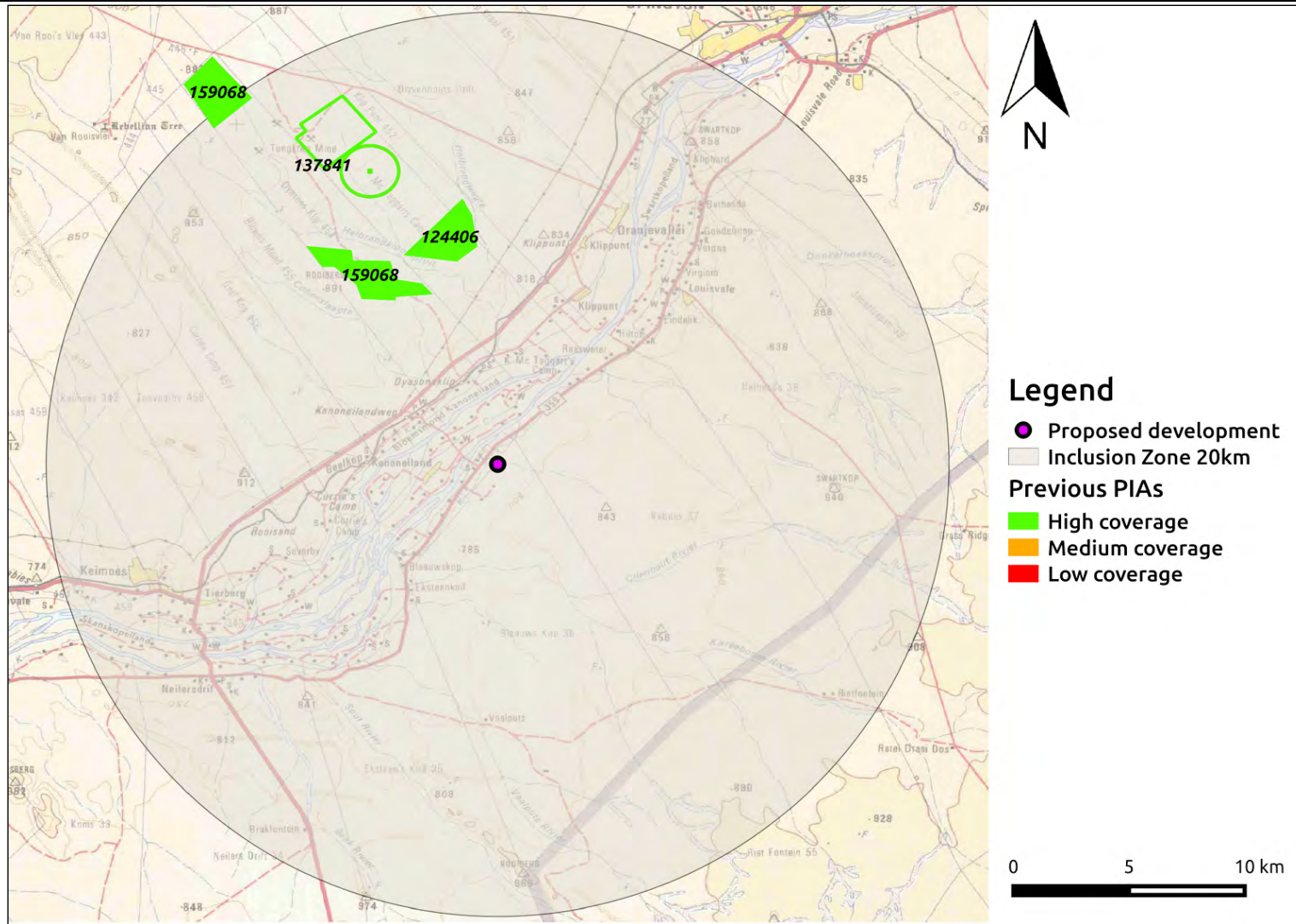


Figure 2a. PIA surveys map. Previous Palaeontological Impact Assessments done in and near the proposed development area with SAHRIS NIDS indicated (please see Appendix 1 for full reference list).



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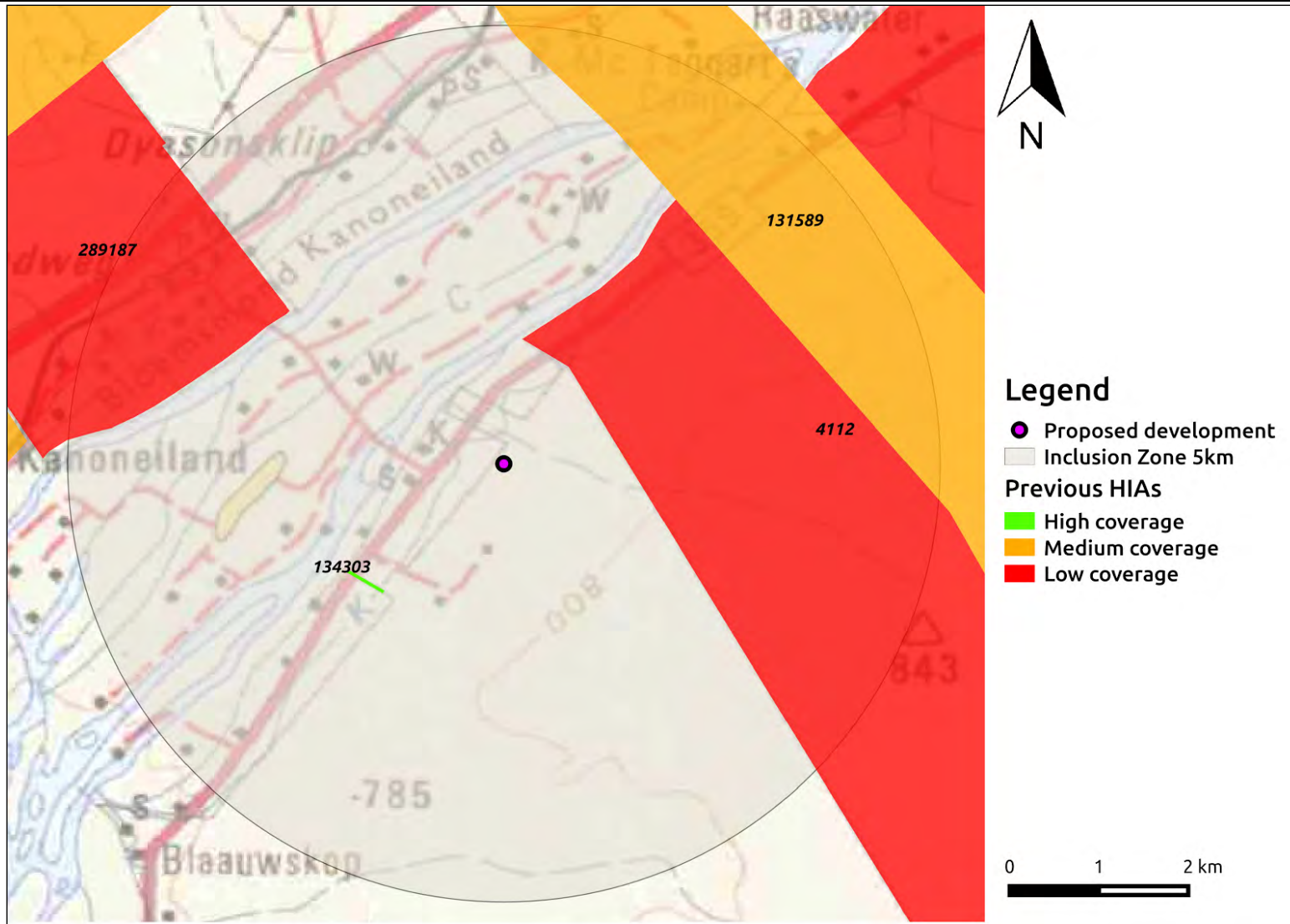


Figure 2b. HIA surveys map. Previous Heritage Impact Assessments done in and near the proposed development area with SAHRIS NIDS indicated (please see Appendix 1 for full reference list). These HIA's do not include specialist palaeontological studies.

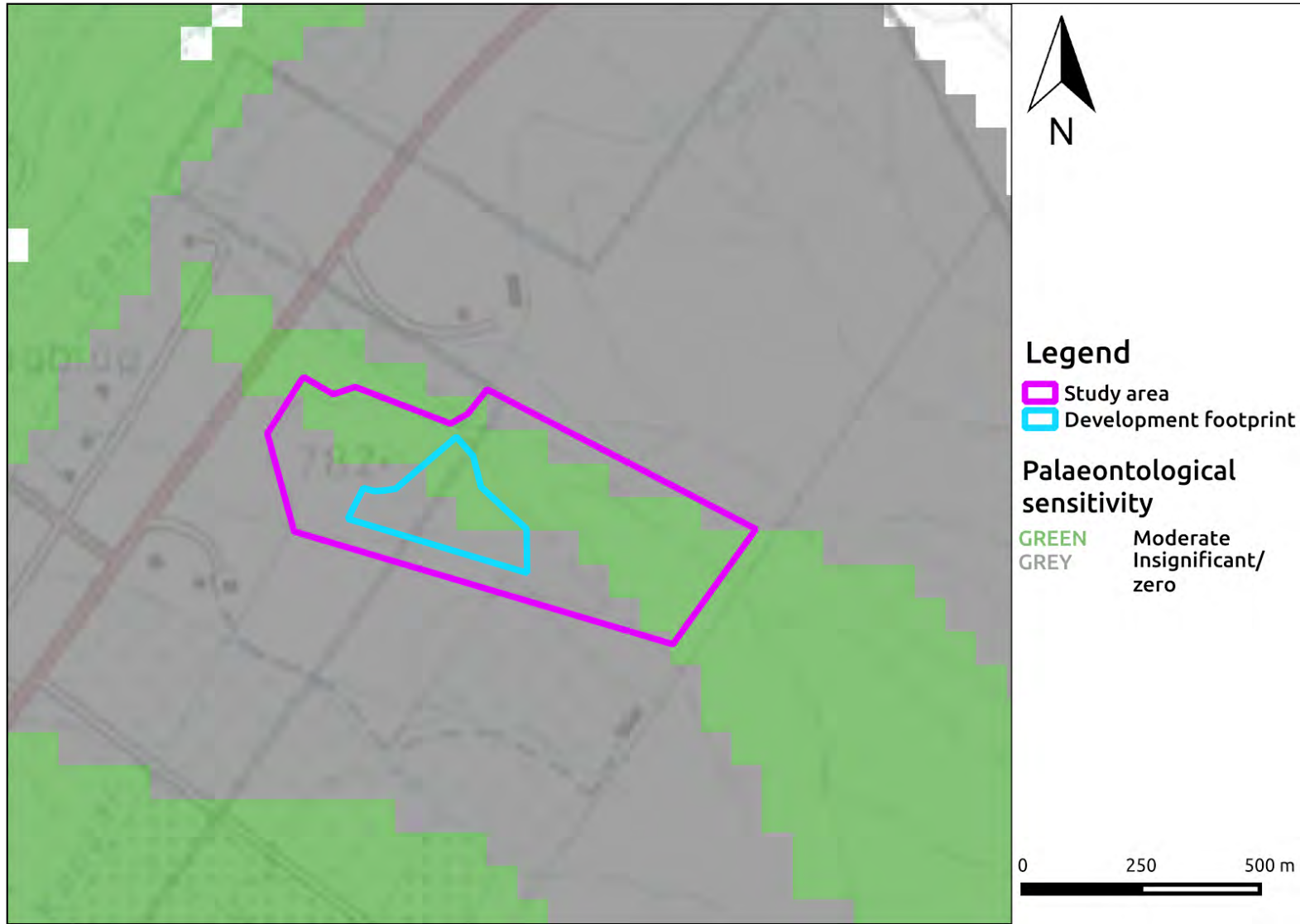


Figure 3. Palaeo Map. Palaeosensitivity of the study area. See Appendix 2 for full guide to the legend.



8. Heritage statement and character of the area

EnviroAfrica CC is conducting the Basic Assessment process for the establishment of a Raisin processing and packaging facility on the Kanoneiland premises of Orange River Cellars. This will include the construction and installation of infrastructure as well as the required services and utilities to accommodate the production of 8000 to 16 000 tons of raisins per annum. The proposed development area of Orange River Wine Cellar is located adjacent to the R359 national road approximately 25km south west of Upington and approximately 15km northeast of Keimoes.

An Archaeological Impact Assessment by Ubique Heritage Consultants has been completed and submitted to SAHRA (Case ID: 9917 and Case ID 8789). The assessment noted that the topography of the study area (5,22 ha) includes an open and level plain, with vegetation present, but the vegetation is frequently interrupted with open dry areas as well as previously disturbed areas within the development footprint. The report went on to note that numerous previous disturbances were detected on the site; including construction of buildings, building ruins, loading zones and other evidence of disturbance.

SAHRA responded to Case ID: 8789 on 18 January 2016 and Case ID: 9917 on 22 August 2016 requiring that a desktop assessment of the palaeontological sensitivity be carried out or that an exemption letter be obtained from further palaeontological work for this project.

Previous Palaeontological Impact Assessments (PIAs), SAHRIS cases, the SAHRIS Palaeosensitivity Map and the Northern Cape Palaeotechnical Report by John Almond and John Pether (2009) were consulted for this Palaeontological Heritage Screener to determine whether the project should proceed without further palaeontological studies.

The proposed development is situated in an area underlain by the granite Kanoneiland Formation, a formation with no sensitivity for impacts to palaeontological resources, as well as the Gordonia Formation, a formation with low sensitivity for impacts to palaeontological resources. This desktop analysis focuses on the Gordonia Formation due to its greater palaeontological sensitivity.

The Gordonia Formation is the youngest sub-unit of the Kalahari Group (Almond 2014) which is known for palynomorphs, root casts and burrows, rare vertebrate remains, diatom-rich limestones, freshwater stromatolites, freshwater and terrestrial shells, ostracods and charophytes (Almond & Pether, 2009). The Gordonia Formation at this site consists of near-surface, unconsolidated aeolian sands dating to the Quaternary. According to Almond (2014), the Gordonia dune sands are considered to range in age from the Late Pliocene/Early Pleistocene to present, dated in part from enclosed Middle to Later Stone Age stone tools. According to Almond (2014), the Gordonia dunes sands are not conducive to fossil preservation and as such, fossils within this formation tend to occur "sporadically and widely and the overall palaeontological sensitivity of the Gordonia Formation is therefore considered to be low". Fossils that may be identified within this formation include burrows and root casts, occasional terrestrial fossil remains including termitaria, ostrich egg shells and shells of land snails (Almond 2014). According to their report, no fossils of this nature were identified in the foot survey conducted by Ubique Heritage.

For this particular development very little of the proposed infrastructure will have a significant impact on the Gordonia Formation (Figure 3). The surface of the development footprint has already been severely disturbed through previous development activities. In addition, fossils within the Gordonia Formation tend to occur sporadically and widely and the overall palaeontological sensitivity of the Gordonia Formation is therefore considered to be low. Based on this desktop analysis, it is unlikely that the proposed development will impact on significant fossil heritage resources within the Gordonia Formation.



RECOMMENDATION:

Fossil Heritage Resources, although sporadic, are known from the Gordonia Formation. As such, it is recommended that a Fossil Finds Procedure be implemented during the construction phase of the proposed development to mitigate any impacts to palaeontological resources.

Heritage Western Cape has adopted a Fossil Finds Procedure (approved by HWC in June 2016) which is attached to this Desktop Analysis for reference. It is recommended that a similar procedure be implemented for the development of the Raisin processing and packaging facility on the Kanoneiland premises of Orange River Cellars.

No further specialist palaeontological studies are required for this development as **the heritage resources in the area proposed for development are sufficiently recorded** - The surveys undertaken in the area adequately captured the heritage resources.



APPENDIX 1 - Reference List

Impact Assessment References				
Nid	Report Type	Author/s	Date	Title
124406	PIA	JF Durand	02/04/2013	Palaeontological Report - Sirius Solar Facility
159068	PIA	John E Almond	07/03/2014	Palaeontological Heritage Basic Assessment: Desktop Study, Proposed RE Capital 3 Solar Development on the property Dyason's Klip near Upington, Northern Cape
137841	PIA	John Pether	24/10/2013	Brief Palaeontological Impact Assessment: Proposed Upington Solar Thermal Plant Three on additional parts of Portion 3 of the farm McTaggarts Camp 453, Gordonia District, Northern Cape
174045	PIA	John Pether	unknown	Palaeontological Impact Assessment (Desktop Study) For The Proposed Upington Solar Thermal Plant Two on (additional parts of) Portion 3 of the Farm McTaggarts Camp 453 Gordonia District, Northern Cape
289187	HIA	Jaco van der Walt	01/06/2015	Heritage Scoping Report for the proposed Bloemsmond Solar 1 and Solar 2 PV Project, Keimoes, NC Province
134303	HIA	Lloyd Rossouw	29/07/2013	Phase 1 Heritage Impact Assessment of a proposed new road at Blaauwskop near Upington, NC Province
131589	AIA	Stephan Gagher	22/02/2013	Proposed Establishment of Several Electricity Distribution Lines within the Northern Cape Province
4112	AIA	Peter Beaumont	29/01/2008	Phase 1 Heritage Impact Assessment Report on a Portion of the Farm Keboes 37, near Kanoneiland, Siyanda District Municipality, Northern Cape Province
Other References				
NA	Northern Cape Palaeotechnical Report	John Almond, John Pether	01/03/2009	Palaeontological heritage of the Northern Cape



APPENDIX 2 - Keys/Guides

Key/Guide to Acronyms

AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (KwaZulu-Natal)
DEA	Department of Environmental Affairs
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DEDECT	Department of Economic Development, Environment, Conservation and Tourism (North West)
DEDT	Department of Economic Development and Tourism (Mpumalanga)
DEDTEA	Department of Economic Development, Tourism and Environmental Affairs (Free State)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DMR	Department of Mineral Resources
GDARD	Gauteng Department of Agriculture and Rural Development (Gauteng)
HIA	Heritage Impact Assessment
LEDET	Department of Economic Development, Environment and Tourism (Limpopo)
MPRDA	Mineral and Petroleum Resources Development Act, no 28 of 2002
NEMA	National Environmental Management Act, no 107 of 1998
NHRA	National Heritage Resources Act, no 25 of 1999
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VIA	Visual Impact Assessment

Full guide to Palaeosensitivity Map legend

	RED:	VERY HIGH - field assessment and protocol for finds is required
	ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
	GREEN:	MODERATE - desktop study is required



BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
GREY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
WHITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study.

APPENDIX 3 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of type:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and significance (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development



- when available, taking information provided by the applicant related to the geological background of the area into account

DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed



(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- compilation of a report for a component of a heritage impact assessment not already undertaken in the area
- undertaking mitigation measures requested in previous assessments/records of decision.

(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment. The Heritage Screener will be submitted to the applicant within 24 hours from receipt of full payment. If the 24-hour deadline is not met by CTS, the applicant will be refunded in full.