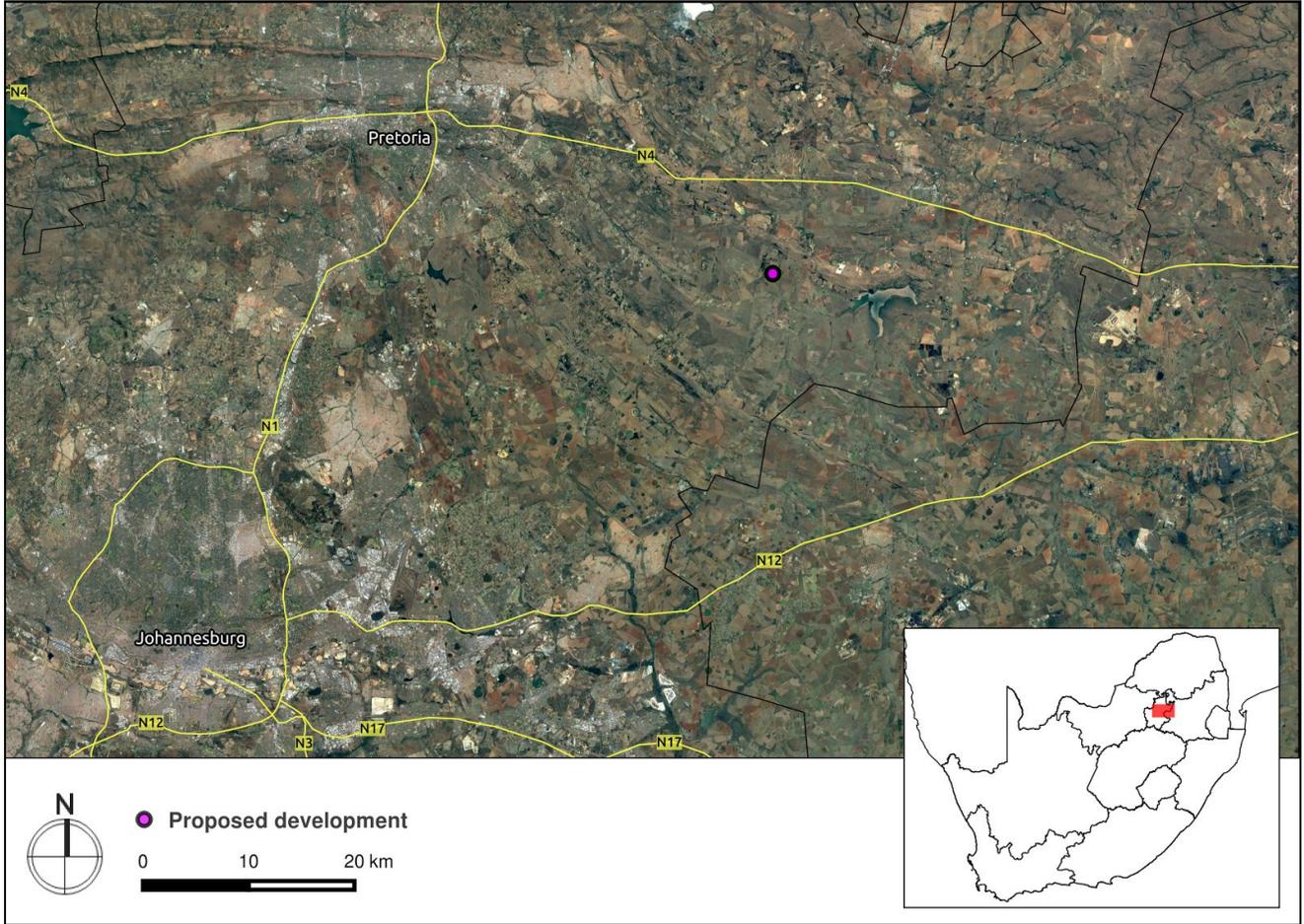


CTS HERITAGE

HERITAGE SCREENER

CTS Reference Number:	CTS17_097
SAHRIS Case ID	
Client:	GKM Environmental Services
Date:	25 August 2017
Title:	Bronkospruit Farm
	
Figure 1a. Satellite map indicating the location of the proposed development in the Gauteng Province	
Recommendation by CTS Heritage Specialists: (Type 2)	(2) The heritage resources and the area proposed for development are only partially recorded

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1. Proposed Development Summary

Vusela Investment Cc would like to expand their production of poultry. The expansion of existing facilities is proposed, along with the construction of new facilities.

2. Application References

Name of relevant heritage authority(s)	South African Heritage Resources Agency
Name of decision making authority(s)	Department of Environmental Affairs

3. Property Information

Latitude / Longitude	-25.8783611 S ; 28.592722222222222 E
Erf number / Farm number	Portion 11 of Puntlyf 520
Local Municipality	Kungwini Local
District Municipality	Metsweding
Previous Magisterial District	Bronkhorstspuit
Province	Gauteng
Current Use	Poultry farming
Current Zoning	Agriculture
Total Extent	1 241,26 ha

4. Nature of the Proposed Development

Total Surface Area	Unknown
Depth of excavation (m)	2 m
Height of development (m)	5 m
Expected years of operation before decommission	NA

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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	
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):	

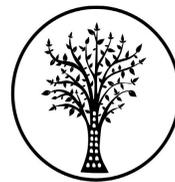
6. Additional Infrastructure Required for this Development

Unknown

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7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)



Figure 1b. Overview Map. Satellite image (2017) indicating the proposed development area on Portion 11 of Puntlyf 520.

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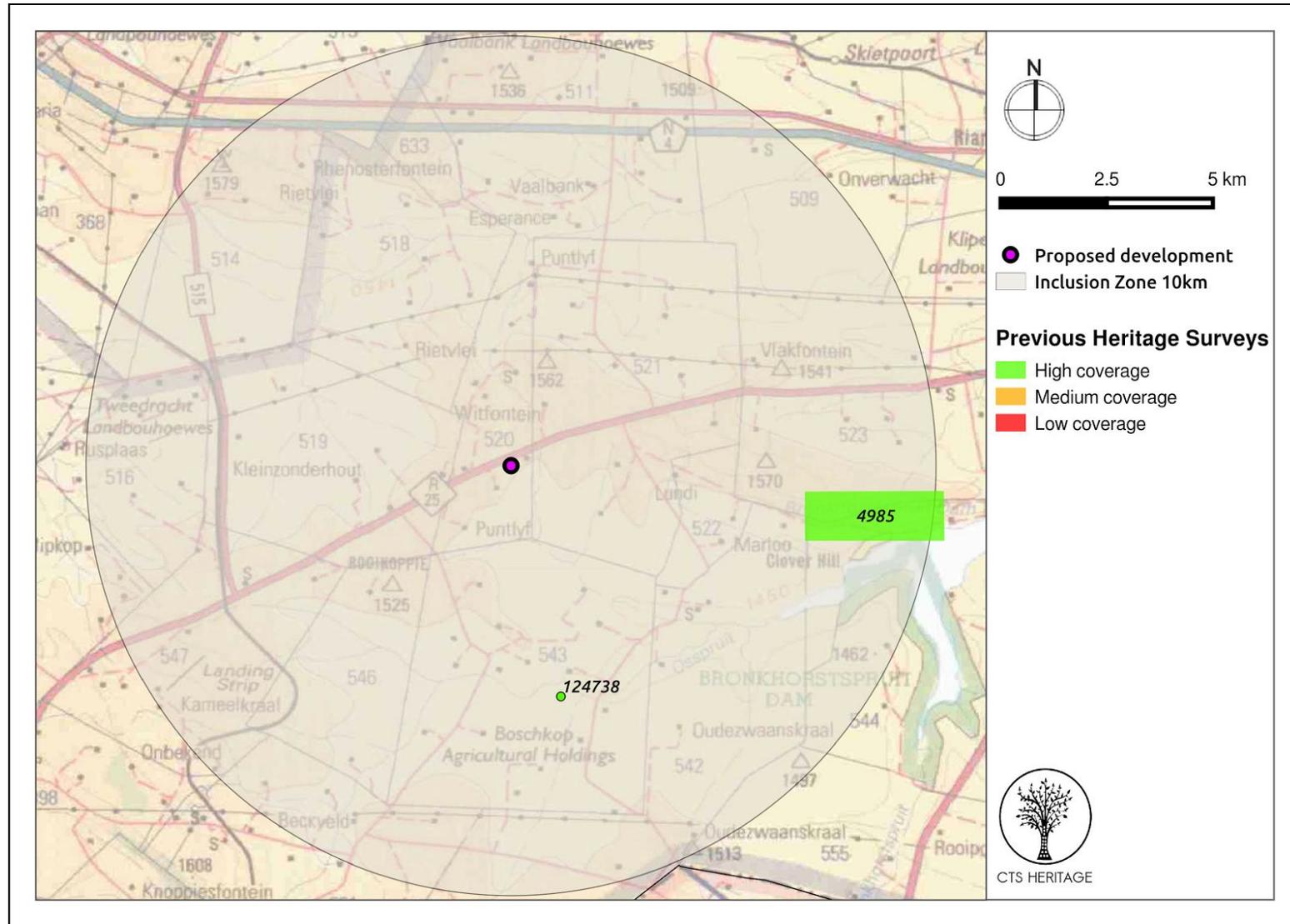


Figure 2. Previous heritage reports map. Previous Heritage Impact Assessments surrounding the proposed development area within 10kms, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list).

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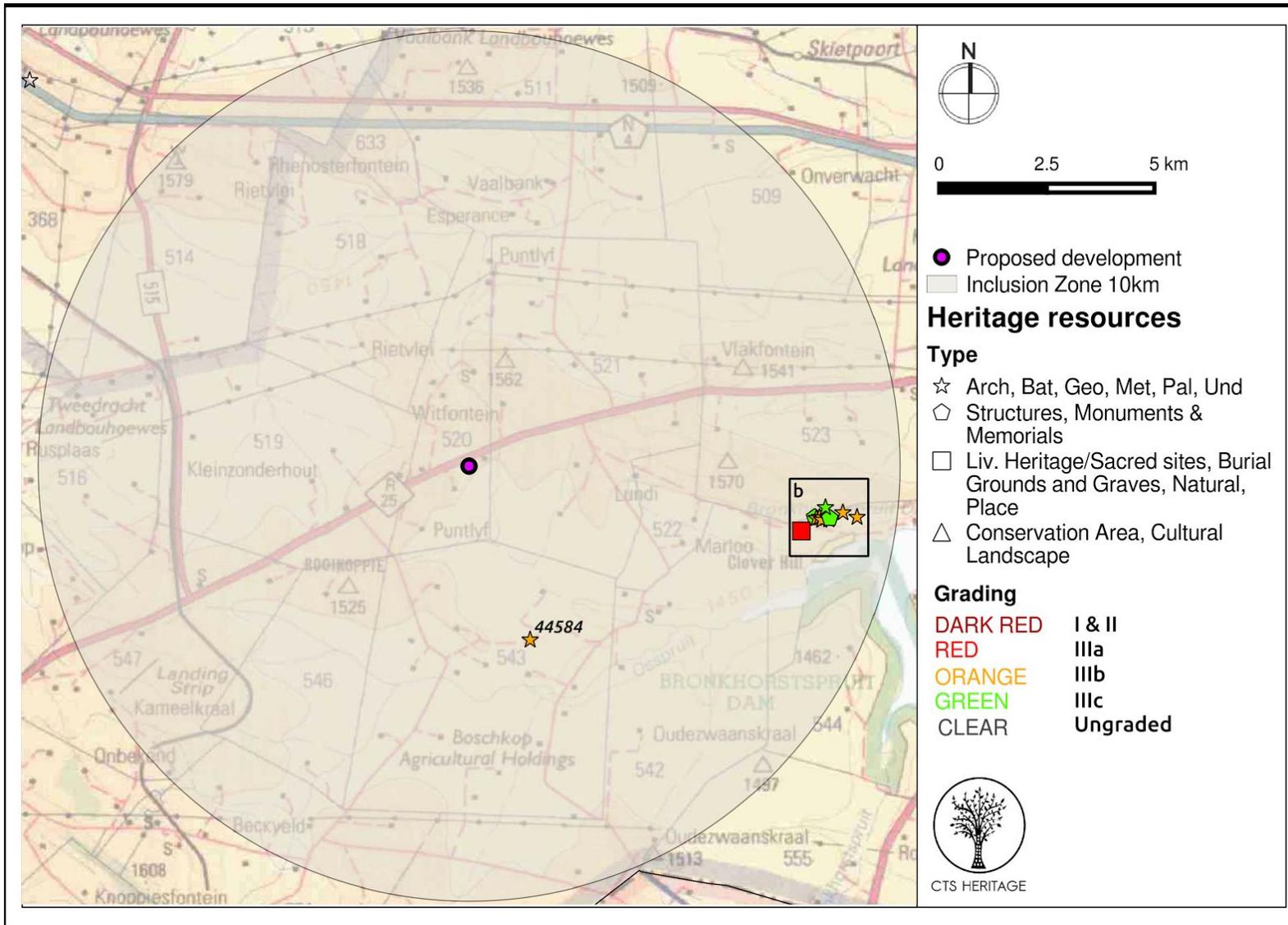


Figure 3a. Heritage Resources Map. Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figure 3b for inset). See Appendix 4 for full description of heritage resource types.

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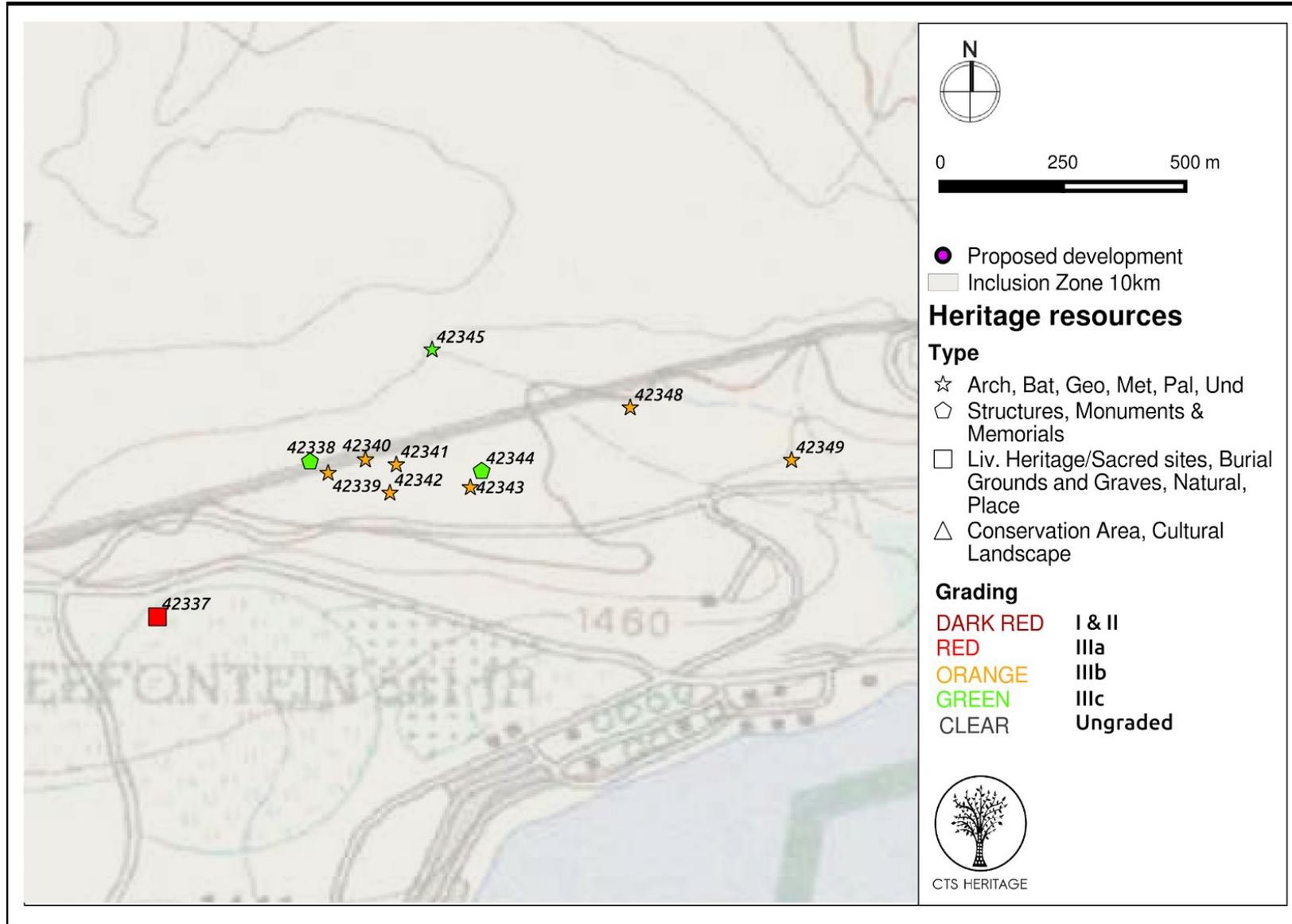


Figure 3b. Inset map.

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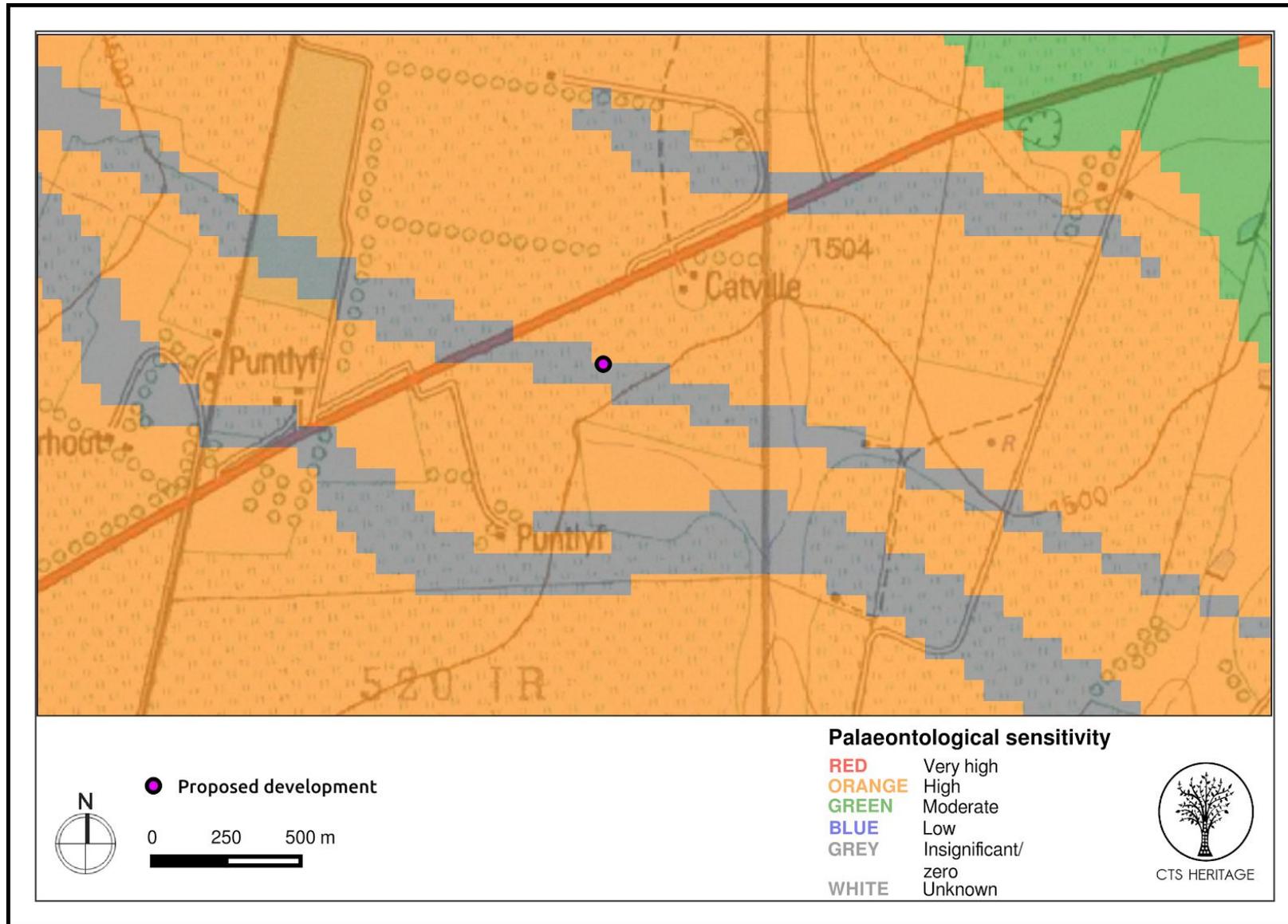


Figure 4. Palaeosensitivity Map, indicating insignificant and high fossil sensitivity underlying the study area. See Appendix 3 for full guide to the legend.

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8. Heritage statement and character of the area

Vusela Investment Cc would like to expand their existing poultry production facilities and construct new facilities on Portion 11 of Farm Puntlyf 520 IR in the Kungwini Local Municipality, Metsweding District, Gauteng. This area is characterised by agricultural land and open Highland Grassveld, with clusters of rocky outcrops.

Later Stone Age sites are known from the area (Van Vollenhoven 2008, NID 124738), although human occupation of this landscape no doubt extends further back than this. Later Iron Age farmsteads and cultural material are also found in this region, attesting to the presence of Bantu-speaking agropastoralists here from at least as early as 1300 AD (Van Vollenhoven 2008, NID 124738). White farmers first arrived in the area in the 1840s, with nearby Bronkhorstspuit initially serving as a railway station from the 1890s; several battles were fought in this area during the South African War (Van Vollenhoven 2008, NID 124738).

There are no declared heritage sites within a 10km radius of the study area. Two Heritage Impact Assessments have been conducted within a 10km radius of the study area, both of which identified heritage resources. A single Grade IIIa gravesite (SID 42337) was identified, as well as several archaeological sites comprising Late Iron Age artefacts, predominantly ceramics eroding out of middens, and stonewalling in the form of “scaloped” enclosures that formed lobed structures, with each “scallop” fulfilling a different function as part of the homestead; all of these elements were graded as IIIb aside from a single short section of IIIc walling (Van Schalkwyk 2003, NID 4985). Two historic cottages were also identified, although it could not be established that these were of any great age or significance, and these were graded IIIc (Van Schalkwyk 2003, NID 4985). A single dump or midden, consisting of broken bottle glass from beer, mineral and soda bottles, and a single piece of 19th/20th Century ceramic (SID 44584) was also identified and graded IIIb, although it could not be established whether this was an intact midden or secondary deposition.

The study area is underlain by geological deposits of palaeontologically insignificant doleritic diabase, and the moderate to high palaeontologically sensitive Silverton Formation, according to the SAHRIS Fossil Sensitivity Map. The Silverton Formation consists of marine mudrocks with minor carbonates and volcanic rocks, and certain units of this Formation can contain stromatolites, which can further be associated with microfossils. Despite the presence of potentially fossil bearing deposits, fossils are largely restricted to the Pretoria Units of the Formation, according to the SAHRIS Fossil Browser. It is unlikely that the proposed expansion of the poultry farm will have a great impact on significant fossils in this area. As such, we recommend that a Palaeo Chance Finds Protocol should be included in the Environmental Management Programme to ensure that no negative impacts occur to fossil material.

Given the likelihood of there being possible unidentified graves in this area, as well as the prevalence of Iron Age stone walling in the vicinity, it is recommended that a field assessment be undertaken by a qualified archaeologist to identify any sensitive heritage resources, and recommend appropriate measures to mitigate impacts to them.

RECOMMENDATION:

(2) The heritage resources and the area proposed for development are only partially recorded - It is recommended that an HIA be drafted for this proposed development, including an Archaeological Impact Assessment.

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APPENDIX 1

List of heritage resources within the 10km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading
42337	TFT01	Tweefontein 01	Burial Grounds & Graves	Grade IIIa
44584	BOSCH01	BOSCHKOP 01	Archaeological	Grade IIIb
42339	TFT03	Tweefontein 03	Stone walling	Grade IIIb
42340	TFT04	Tweefontein 04	Stone walling	Grade IIIb
42341	TFT05	Tweefontein 05	Stone walling	Grade IIIb
42342	TFT06	Tweefontein 06	Stone walling	Grade IIIb
42343	TFT07	Tweefontein 07	Stone walling	Grade IIIb
42348	TFT10	Tweefontein 10	Stone walling	Grade IIIb
42349	TFT11	Tweefontein 11	Stone walling	Grade IIIb
42338	TFT02	Tweefontein 02	Building	Grade IIIc
42344	TFT08	Tweefontein 08	Building	Grade IIIc
42345	TFT09	Tweefontein 09	Stone walling	Grade IIIc

APPENDIX 2

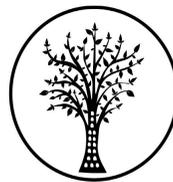
Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
4985	AIA	Johnny Van Schalkwyk	01/11/2003	Proposed Clover Hill Development, Bronkhorstspuit Dam
124738	HIA	Anton van Vollenhoven	01/10/2008	Cultural Heritage Impact Assessment For The Proposed Biomass-to-electricity Plant On The Farm Boschkop 543 Jr, Close To Bronkhorstspuit, Gauteng Province

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APPENDIX 3: 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)
DEDETEA	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.

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APPENDIX 4 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

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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:

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- 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.

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