

HERITAGE SCREENER

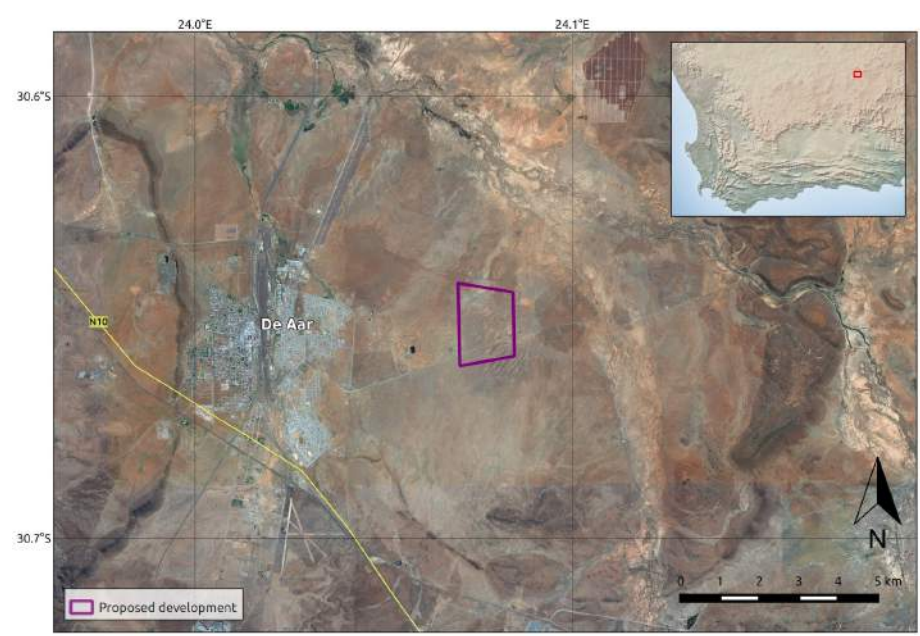
CTS Reference Number:	CTS15_001	
Client:	Solaris Power (Pty) Ltd	
Date:	15.05.2015	
Proposed development:	CSP Solar Energy Facility	
Recommendation by CTS Heritage Specialists: (TYPE 2)	<p>(2) The heritage resources and the area proposed for development are only partially recorded -</p> <p>It is recommended that a heritage impact assessment be undertaken for the proposed development comprising the following components:</p> <ul style="list-style-type: none">• archaeological component: undertaken by a professional archaeologist with Stone Age experience• the archaeologist should be made aware of the possible presence on the property of structures older than 60 years• no palaeontological component is necessary, but the Environmental Control Officer be alerted of the possible exposure of fossils during fresh excavations. A protocol for palaeontological chance finds must be included in the Environmental Management Plan for the solar energy facility.	

Figure 1a. Satellite image with proposed development and study area location indicated.



1. Proposed Development Summary

Solar energy facility east of De Aar, Northern Cape, South Africa.

2. Application References

Name of relevant heritage authority(s)	South African Heritage Resources Agency (for archaeology, palaeontology and meteorites components)
	Ngwao-Boswa Jwa Kapa Bokone (for built environment and living heritage components)
Name of decision making authority(s)	Department of Environmental Affairs (National), 14/12/16/0/1/2/3/4/5

3. Property Information

Farm Name and Number	Portion 4 of Farm 180
Local Municipality	Emthanjeni
District Municipality	Pixley Ka Seme
Previous Magisterial District	De Aar
Province	Northern Cape
Current Use	Grazing
Current Zoning	Agricultural
Extent of property	370ha

4. Nature of the Proposed Development

Surface area to be affected/destroyed	100ha
Depth of excavation (m)	3



Height of development (m)	5
Expected years of operation before decommission	20

5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	YES
Triggers: Section 38(1) of the National Heritage Resources Act	n/a
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

- Two transmission lines with related substations
- Boundary fencing
- One access road and internal access roads for servicing and maintenance
- A control building, a guard cabin, an electrical substation and solar resource
- Storm water infrastructure



7. Mapping

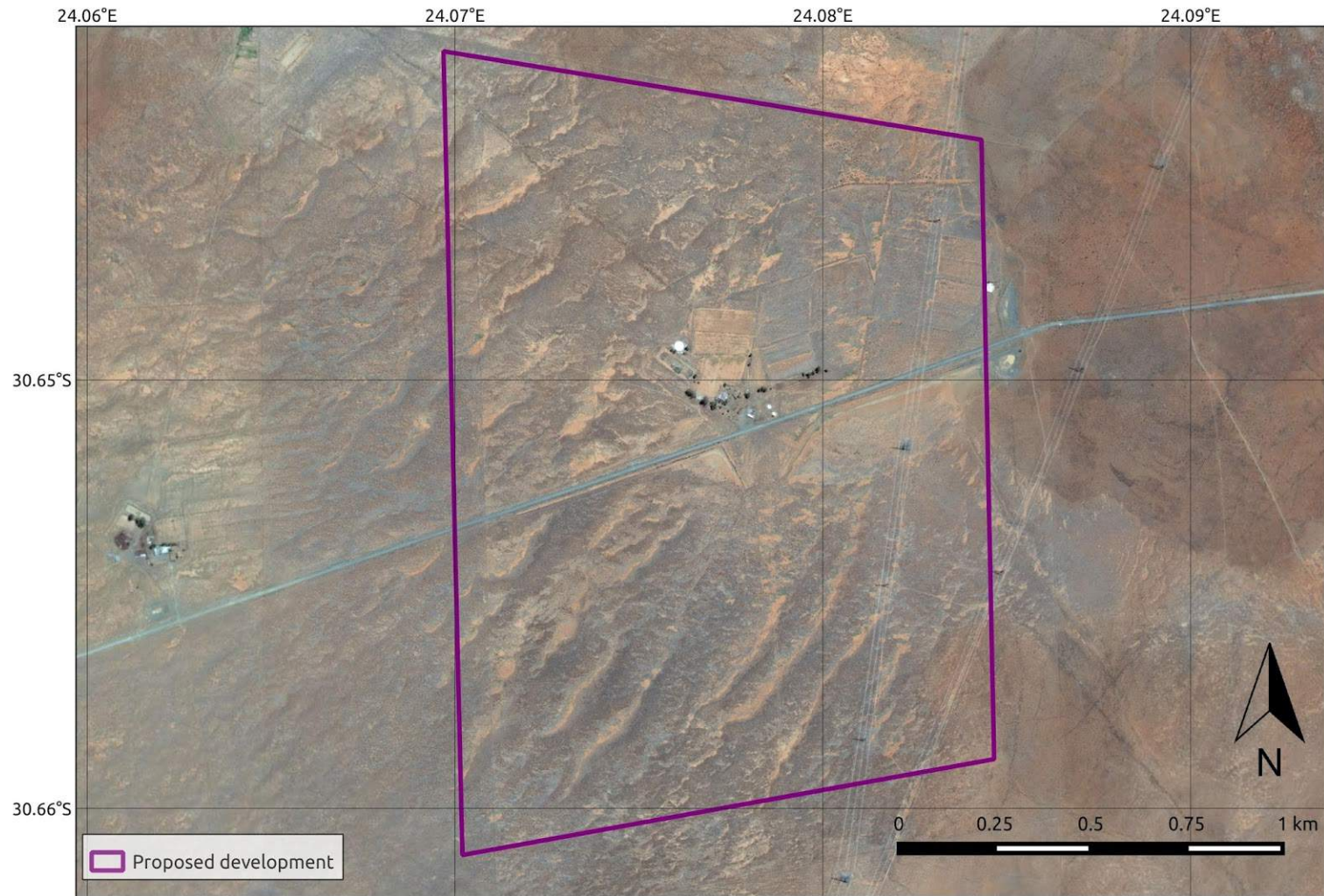


Figure 1b. Overview Map. Satellite image with proposed development indicated.

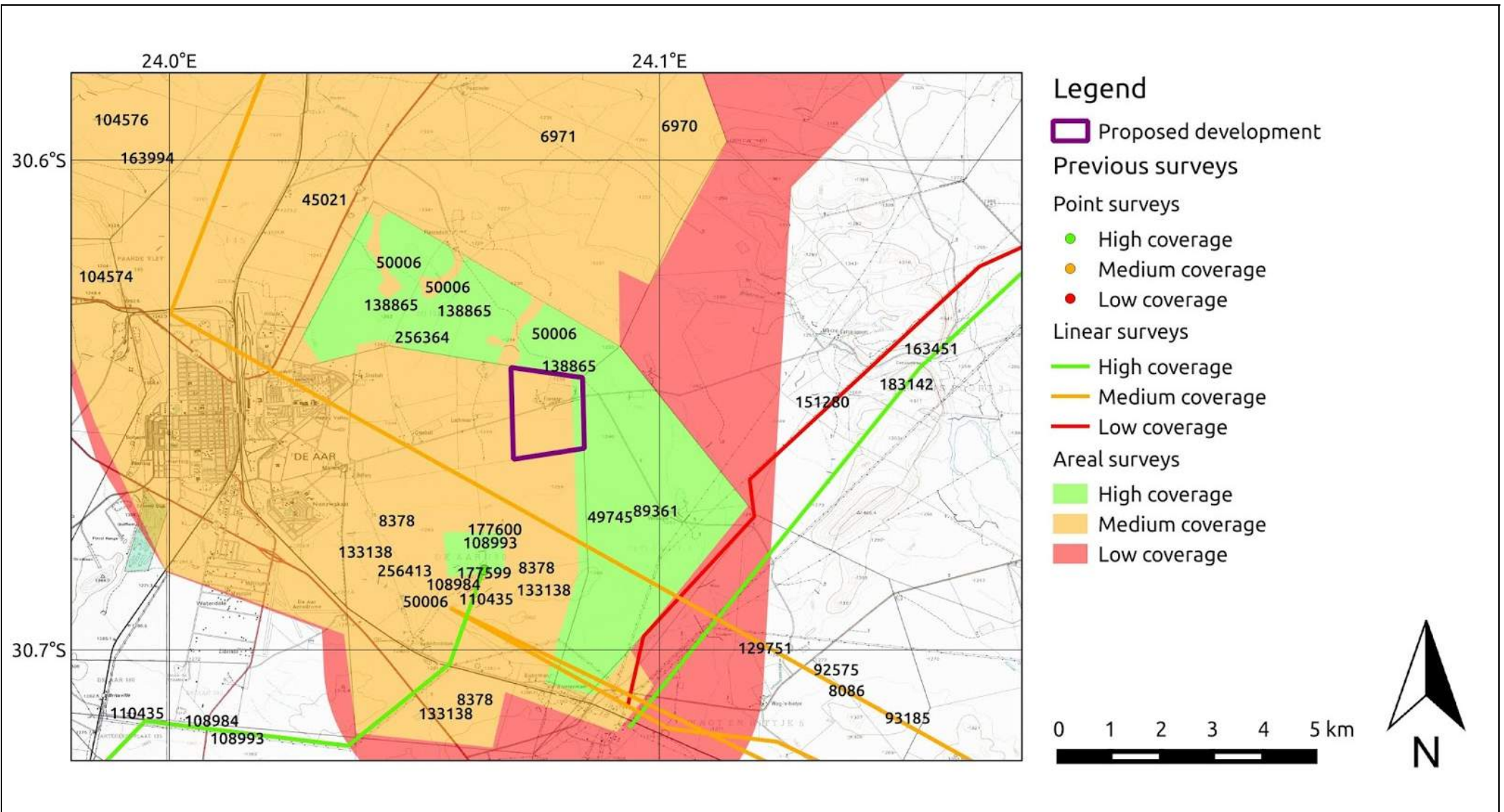


Figure 2a. HIAs Map. Previous studies done in and near the proposed development (**excluding** Palaeontological Impact Assessments), with SAHRIS NID labels indicated.

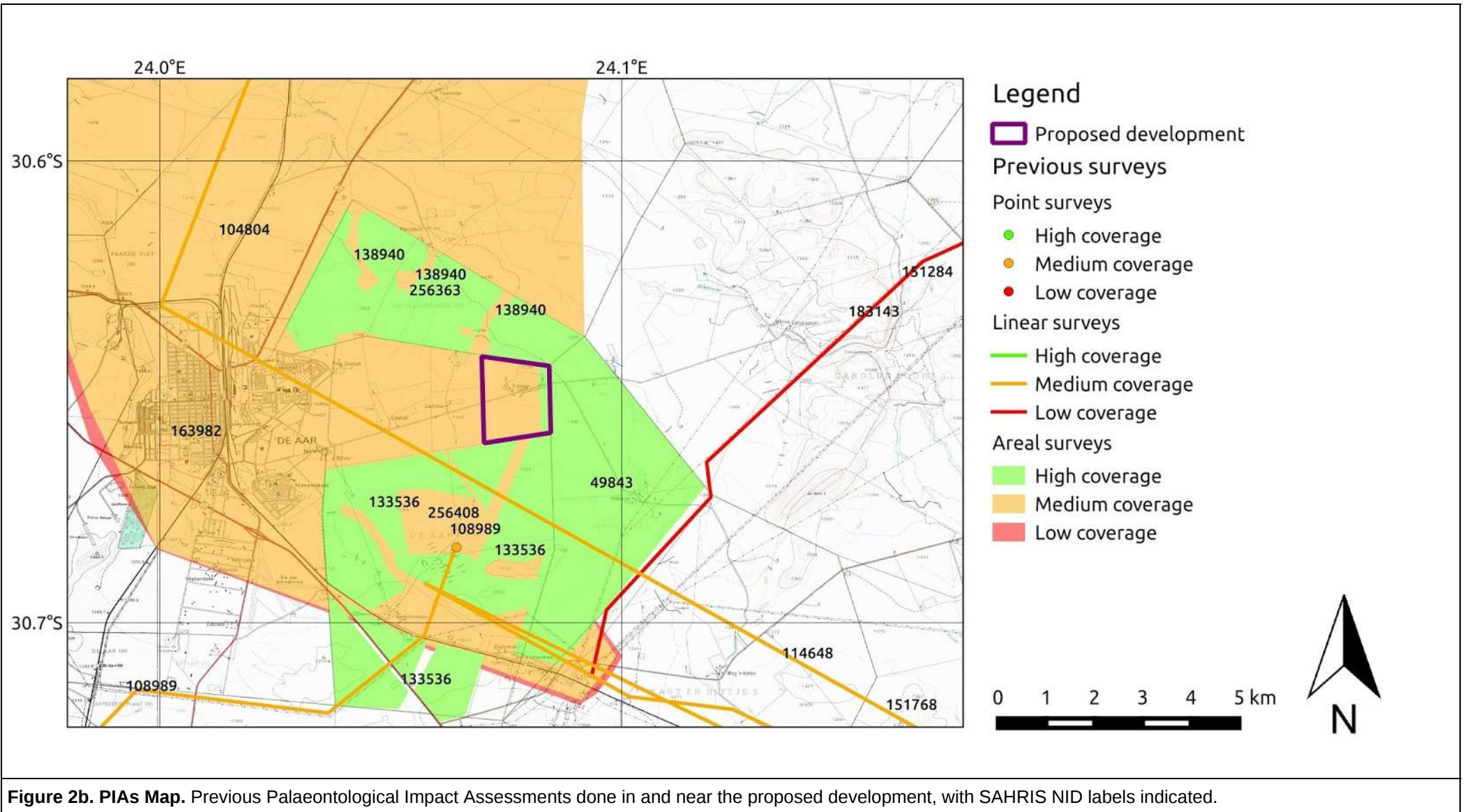


Figure 2b. PIAs Map. Previous Palaeontological Impact Assessments done in and near the proposed development, with SAHRIS NID labels indicated.

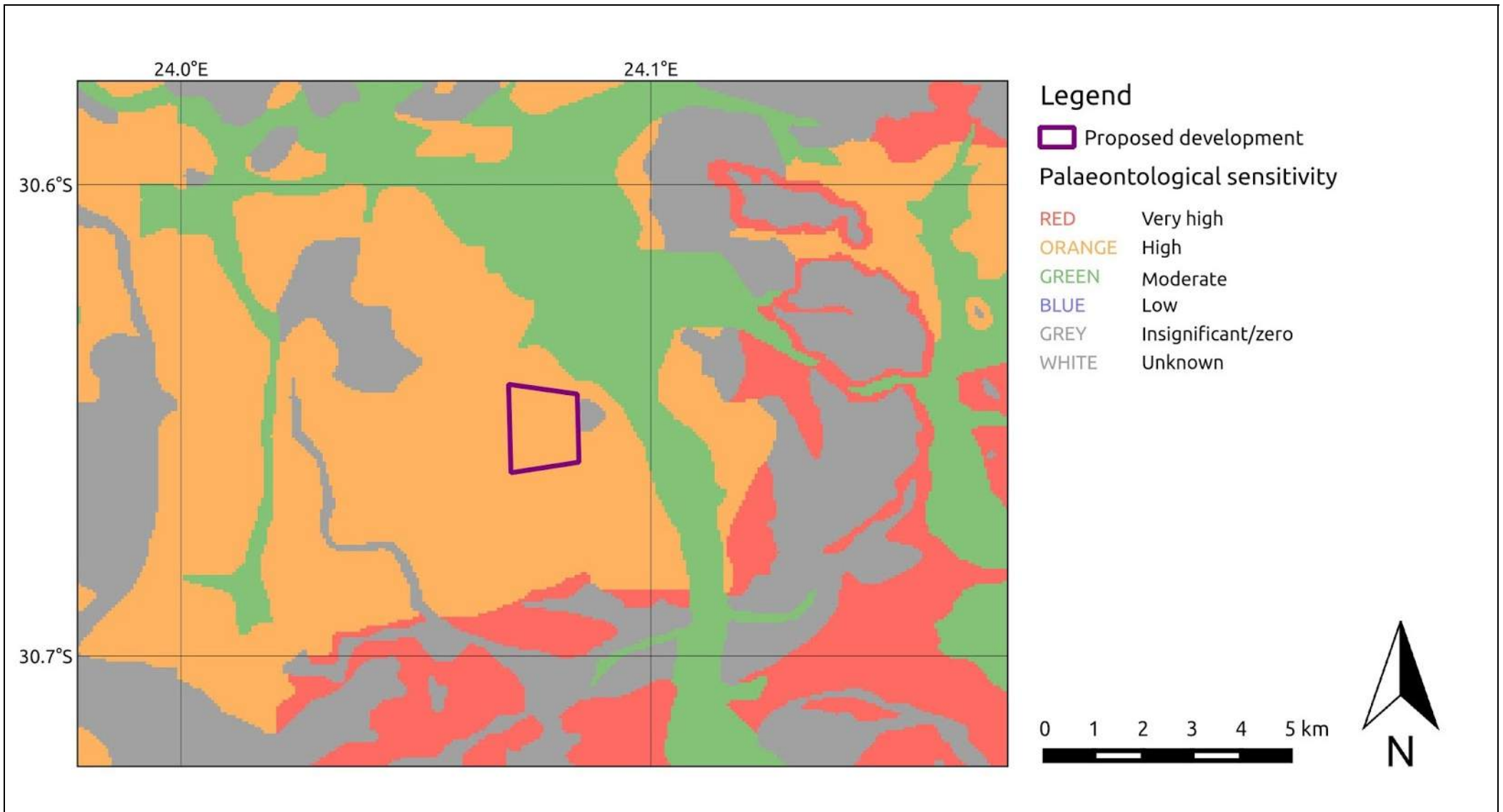
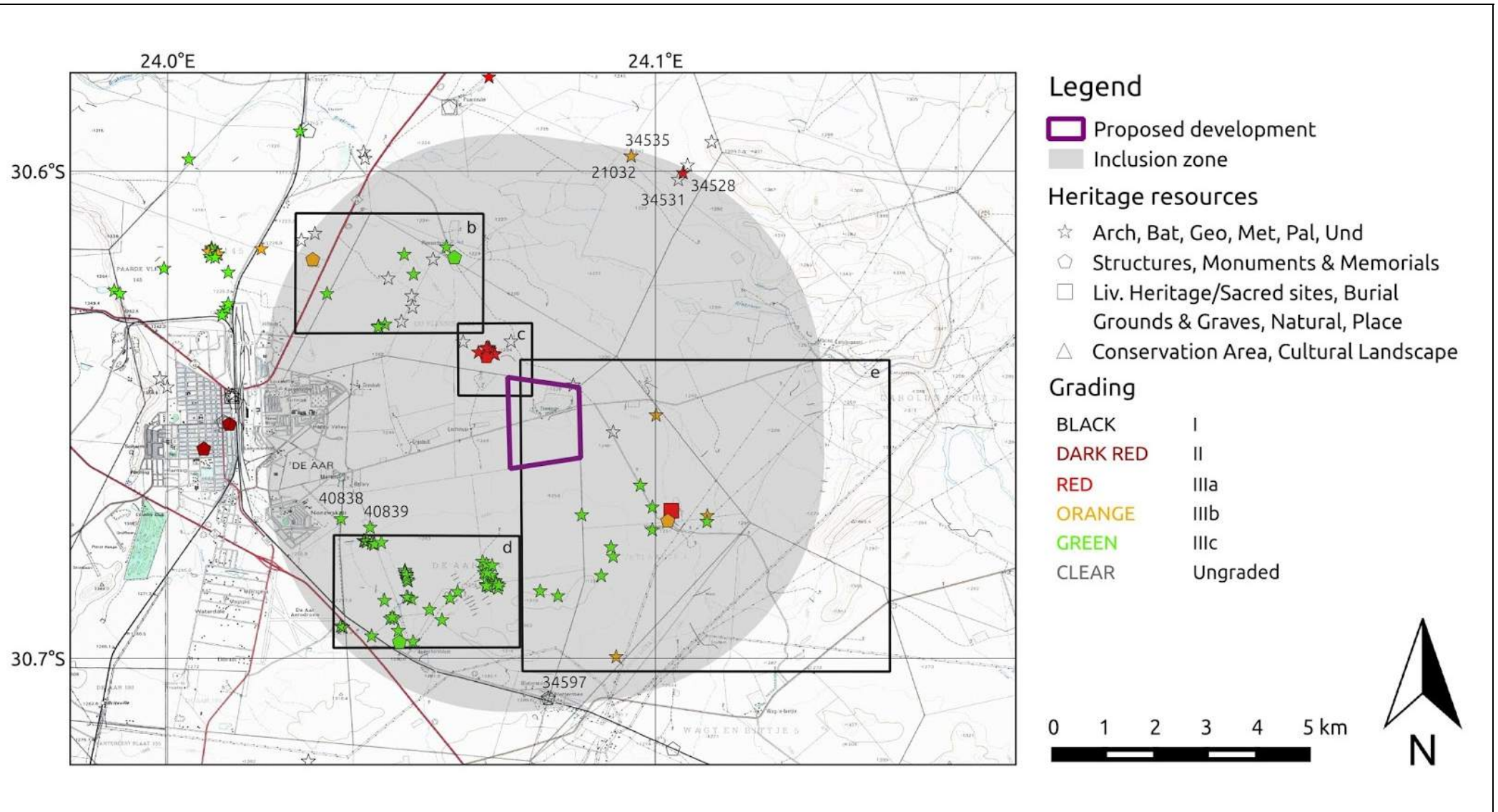


Figure 3. Palaeo Map. Palaeosensitivity of the study area. See Appendix 3 for full guide to the legend.



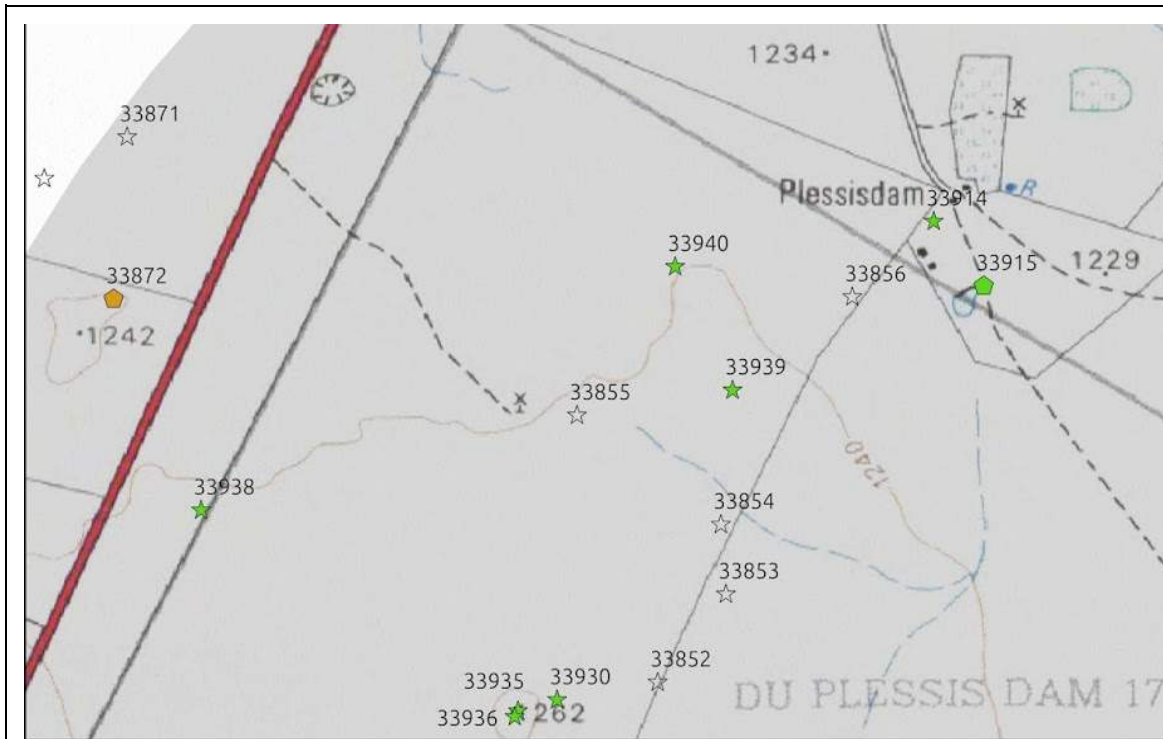


Figure 4b. Heritage Sites Inset Map.

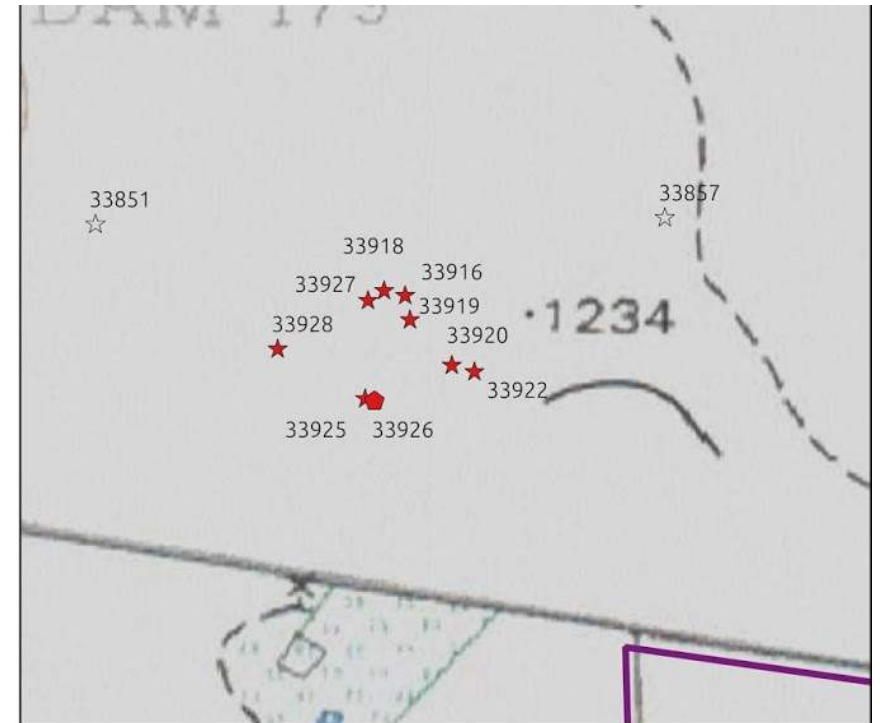


Figure 4c. Heritage Sites Inset Map.

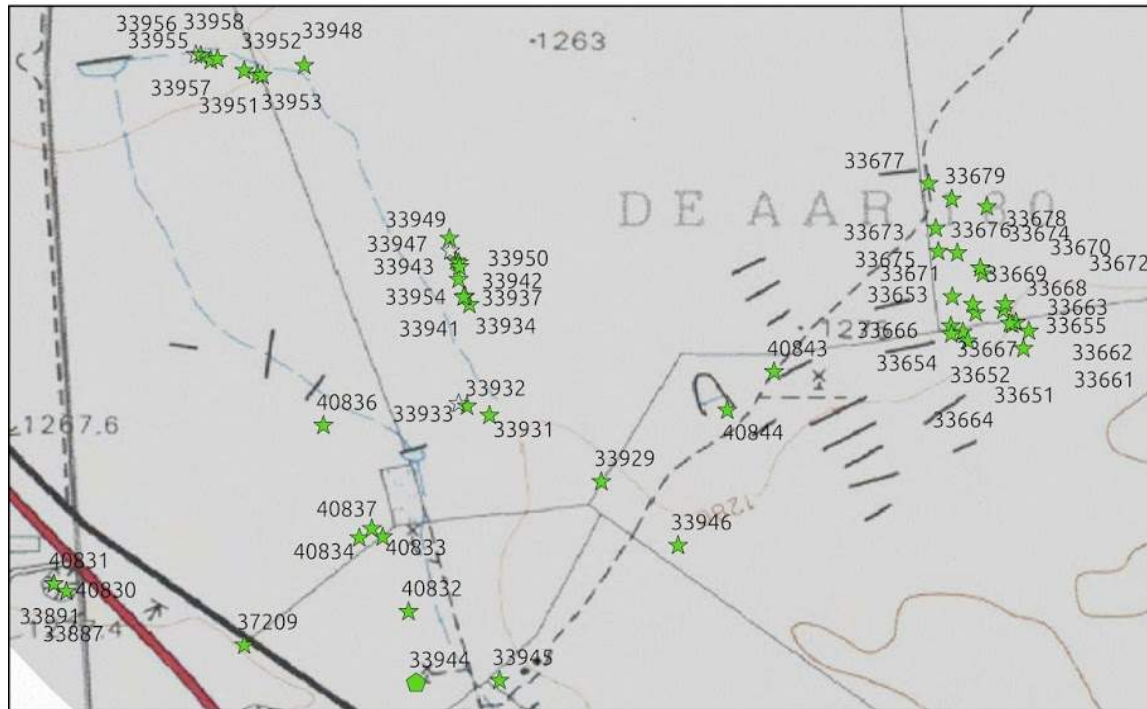


Figure 4d. Heritage Sites Inset Map.

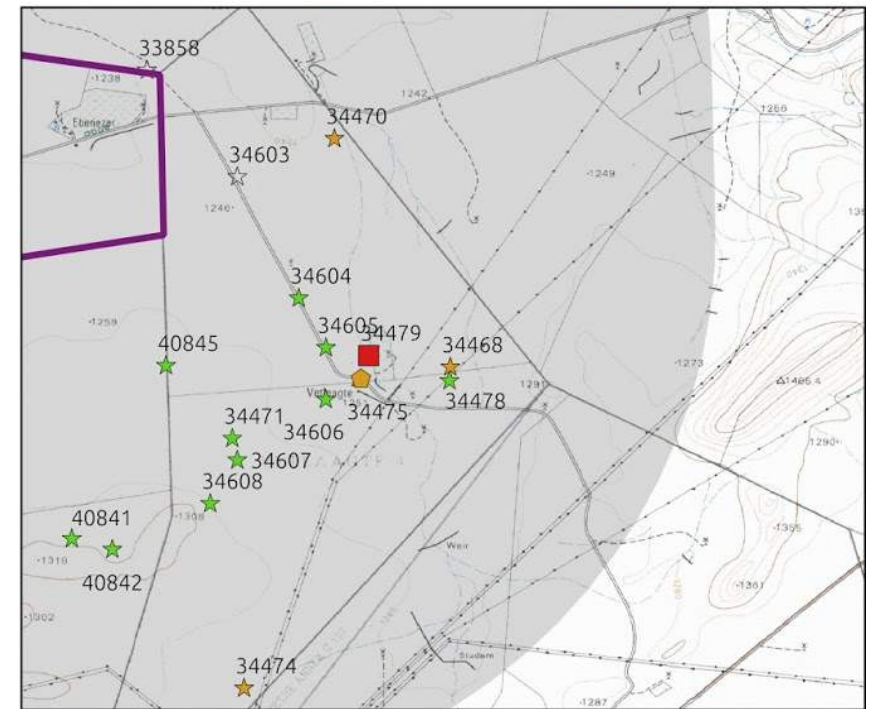


Figure 4e. Heritage Sites Inset Map.



8. Heritage statement/character of the area

A number of heritage impact assessments have been undertaken in the area surrounding around the proposed development, although none of them was specifically focused on Portion 4 of Farm 180.

No Grade I or Grade II sites (National or Provincial Heritage Sites) have been identified within 5km of the proposed development. The numerous archaeological impact assessments undertaken in the area recorded the presence of Stone Age material (predominantly Middle Stone Age), mostly of medium to low significance.

In the north-east corner of the property a few farm houses are visible from the satellite map. The heritage specialist should be made aware of the possible presence of structures older than 60 years on the property.

From a palaeontological perspective, according to the 1:250 000 map, the area is underlain by the Tierberg Formation. However, after a site visit on Farm Vetlaagte 4, the adjacent property to the development, Dr Almond argued that this formation may instead be the Waterford Formation. Both of these belong to the Eccra Group, and thus have a high sensitivity rating. Regular fossil occurrences in these formations include abundant trace fossils and petrified wood, plant debris and microvertebrates. These formations are overlain by *Quaternary to Recent superficial deposits (...) and horizons of fine to coarse, angular gravels* (Case ID _192, Almond, May 2012) of low fossil sensitivity. The fossil surface material identified during the survey was not of significance.



APPENDIX 1 - Site List

Site ID	Site no	Full Site Name	Site Type	Grading
33916	DPD2011/003	DU PLESSIS DAM 2011/003	Artefacts, Ruin > 100 years	Grade IIIa
33918	DPD2011/004	DU PLESSIS DAM 2011/004	Artefacts, Ruin > 100 years	Grade IIIa
33919	DPD2011/005	DU PLESSIS DAM 2011/005	Artefacts, Ruin > 100 years	Grade IIIa
33920	DPD2011/006	DU PLESSIS DAM 2011/006	Artefacts	Grade IIIa
33922	DPD2011/007	DU PLESSIS DAM 2011/007	Ruin > 100 years, Artefacts	Grade IIIa
33925	DPD2011/008	DU PLESSIS DAM 2011/008	Ruin > 100 years, Artefacts	Grade IIIa
33926	DPD2011/009	DU PLESSIS DAM 2011/009	Monuments & Memorials	Grade IIIa
33927	DPD2011/010	DU PLESSIS DAM 2011/010	Archaeological	Grade IIIa
33928	DPD2011/011	DU PLESSIS DAM 2011/011	Artefacts	Grade IIIa
34528	LAN001	Langa lethemba 001	Artefacts	Grade IIIa
34479	VLG007	VETLAAGTE 7	Burial Grounds & Graves	Grade IIIa
33872	CSPPV7	Concentrated Solar Project Paarde Valley 7	Structures	Grade IIIb
34468	VLG001	VETLAAGTE 1	Artefacts	Grade IIIb
34470	VLG002	Vetlaagte 2	Artefacts	Grade IIIb
34474	VLG004	VETLAAGTE 4	Artefacts	Grade IIIb
34475	VLG005	VETLAAGTE 5	Building	Grade IIIb
34535	LAN007	Langa lethemba 007	Artefacts	Grade IIIb
33929	DAR2011/001	BADENHORST DAM FARM 2011/001	Stone walling	Grade IIIc
33931	DAR2011/002	BADENHORST DAM FARM 2011/002	Artefacts	Grade IIIc
33932	DAR2011/003	BADENHORST DAM FARM 2011/003	Artefacts	Grade IIIc
33934	DAR2011/005	BADENHORST DAM FARM 2011/005	Stone walling, Artefacts	Grade IIIc



33937	DAR2011/006	BADENHORST DAM FARM 2011/006	Stone walling	Grade IIIc
33941	DAR2011/007	BADENHORST DAM FARM 2011/007	Archaeological	Grade IIIc
33942	DAR2011/008	BADENHORST DAM FARM 2011/008	Stone walling, Artefacts	Grade IIIc
33943	DAR2011/009	BADENHORST DAM FARM 2011/009	Stone walling	Grade IIIc
33950	DAR2011/011	BADENHORST DAM FARM 2011/011	Stone walling	Grade IIIc
33949	DAR2011/012	BADENHORST DAM FARM 2011/012	Stone walling	Grade IIIc
33954	DAR2011/013	BADENHORST DAM FARM 2011/013	Stone walling	Grade IIIc
33956	DAR2011/015	BADENHORST DAM FARM 2011/015	Stone walling	Grade IIIc
33957	DAR2011/016	BADENHORST DAM FARM 2011/016	Stone walling	Grade IIIc
33958	DAR2011/017	BADENHORST DAM FARM 2011/017	Stone walling	Grade IIIc
33951	DAR2011/018	BADENHORST DAM FARM 2011/018	Artefacts	Grade IIIc
33952	DAR2011/019	BADENHORST DAM FARM 2011/019	Artefacts	Grade IIIc
33953	DAR2011/020	BADENHORST DAM FARM 2011/020	Artefacts	Grade IIIc
33948	DAR2011/021	BADENHORST DAM FARM 2011/021	Stone walling	Grade IIIc
33946	DAR2011/022	BADENHORST DAM FARM 2011/022	Archaeological	Grade IIIc
33945	DAR2011/023	BADENHORST DAM FARM 2011/023	Stone walling	Grade IIIc
33944	DAR2011/024	BADENHORST DAM FARM 2011/024	Building	Grade IIIc
33667	DASE13	De Aar South East 13	Artefacts	Grade IIIc
33668	DASE14	De Aar South East 14	Artefacts	Grade IIIc
33669	DASE15	De Aar South East 15	Artefacts	Grade IIIc
33670	DASE16	De Aar South East 16	Artefacts	Grade IIIc
33651	DASE1	De Aar South East 1	Artefacts	Grade IIIc
33666	DASE12	De Aar South East 12	Artefacts	Grade IIIc



33663	DASE10	De Aar South East 10	Artefacts	Grade IIIc
33671	DASE17	De Aar South East 17	Artefacts	Grade IIIc
33672	DASE18	De Aar South East 18	Artefacts	Grade IIIc
33673	DASE19	De Aar South East 19	Artefacts	Grade IIIc
33674	DASE20	De Aar South East 20	Artefacts	Grade IIIc
33675	DASE21	De Aar South East 21	Artefacts	Grade IIIc
33676	DASE22	De Aar South East 22	Artefacts	Grade IIIc
33677	DASE25	De Aar South East 25	Artefacts	Grade IIIc
33679	DASE26	De Aar South East 26	Artefacts	Grade IIIc
33678	DASE27	De Aar South East 26	Artefacts	Grade IIIc
33653	DASE4	De Aar South East 4	Artefacts	Grade IIIc
33661	DASE8	De Aar South East 8	Artefacts	Grade IIIc
33664	DASE9	De Aar South East 9	Artefacts	Grade IIIc
33662	DASE7	De Aar South East 7	Artefacts	Grade IIIc
33655	DASE6	De Aar South East 6	Artefacts	Grade IIIc
33914	DPD2011/001	DU PLESSIS DAM 2011/001	Stone walling	Grade IIIc
33915	DPD2011/002	DU PLESSIS DAM 2011/002	Structures, Artefacts	Grade IIIc
33930	DPD2011/012	DU PLESSIS DAM 2011/012	Artefacts	Grade IIIc
33935	DPD2011/013	DU PLESSIS DAM 2011/013	Artefacts	Grade IIIc
33936	DPD2011/014	DU PLESSIS DAM 2011/014	Artefacts	Grade IIIc
33938	DPD2011/015	DU PLESSIS DAM 2011/015	Artefacts	Grade IIIc
33939	DPD2011/016	DU PLESSIS DAM 2011/016	Artefacts	Grade IIIc
33940	DPD2011/017	DU PLESSIS DAM 2011/017	Artefacts	Grade IIIc



33652	DASE2	De Aar South East 2	Artefacts	Grade IIIc
33654	DASE5	De Aar South East 5	Artefacts	Grade IIIc
37209	TRANS-ECNC013	Transnet - Eastern Cape, Northern Cape 013	Ruin > 100 years, Artefacts	Grade IIIc
34471	VLG003	VETLAAGTE 3	Artefacts	Grade IIIc
34478	VLG006	VETLAAGTE 6	Stone walling	Grade IIIc
34604	VLG009	Vetlaagte 009	Palaeontological	Grade IIIc
34605	VLG010	Vetlaagte 010	Palaeontological	Grade IIIc
34606	VLG011	Vetlaagte 011	Palaeontological	Grade IIIc
34607	VLG012	Vetlaagte 012	Palaeontological	Grade IIIc
34608	VLG013	Vetlaagte 013	Palaeontological	Grade IIIc
40830	DAR2011/025	BADENHORST DAM FARM 2011/025	Palaeontological	Grade IIIc
40831	DAR2011/026	BADENHORST DAM FARM 2011/026	Palaeontological	Grade IIIc
40832	DAR2011/027	BADENHORST DAM FARM 2011/027	Palaeontological	Grade IIIc
40833	DAR2011/028	BADENHORST DAM FARM 2011/028	Palaeontological	Grade IIIc
40834	DAR2011/029	BADENHORST DAM FARM 2011/029	Palaeontological	Grade IIIc
40836	DAR2011/031	BADENHORST DAM FARM 2011/031	Palaeontological	Grade IIIc
40837	DAR2011/030	BADENHORST DAM FARM 2011/030	Palaeontological	Grade IIIc
40838	DAR2011/032	BADENHORST DAM FARM 2011/032	Palaeontological	Grade IIIc
40839	DAR2011/033	BADENHORST DAM FARM 2011/033	Palaeontological	Grade IIIc
40841	DAR2011/035	BADENHORST DAM FARM 2011/035	Palaeontological	Grade IIIc
40842	DAR2011/036	BADENHORST DAM FARM 2011/036	Palaeontological	Grade IIIc
40843	DAR2011/037	BADENHORST DAM FARM 2011/037	Palaeontological	Grade IIIc
40844	DAR2011/038	BADENHORST DAM FARM 2011/038	Palaeontological	Grade IIIc



40845	DAR2011/034	BADENHORST DAM FARM 2011/034	Palaeontological	Grade IIIc
33933	DAR2011/004	BADENHORST DAM FARM 2011/004	Artefacts	Ungraded
33947	DAR2011/010	BADENHORST DAM FARM 2011/010	Stone walling	Ungraded
33955	DAR2011/014	BADENHORST DAM FARM 2011/014	Stone walling	Ungraded
33851	DPLE1	DU PLESSIS 1	Palaeontological	Ungraded
33852	DPLE2	DU PLESSIS 2	Palaeontological	Ungraded
33853	DPLE3	DU PLESSIS 3	Palaeontological	Ungraded
33854	DPLE4	DU PLESSIS 4	Palaeontological	Ungraded
33855	DPLE5	DU PLESSIS 5	Palaeontological	Ungraded
33856	DPLE6	DU PLESSIS 6	Palaeontological	Ungraded
33858	DPLE8	DU PLESSIS 8	Palaeontological	Ungraded
33887	RNSB244	Renosterburg244	Palaeontological	Ungraded
33891	RNSB245	Renosterburg245	Palaeontological	Ungraded
34531	LAN004	Langa lethemba 004	Artefacts	Ungraded
34597	TBS003	Taaiboschfontein 003	Archaeological, Transport infrastructure	Ungraded
34603	VLG008	Vetlaagte 008	Palaeontological	Ungraded
21032	Paarde Valley Site 1	Paarde Valley Pleistocene Site 1	Artefacts	Ungraded
33871	CSPPV6	Concentrated Solar Project Paarde Valley 6	Stone walling	Ungraded
33857	DPLE7	DU PLESSIS 7	Palaeontological	Ungraded



APPENDIX 2 - Reference List

NID	Author/s	Date	Title
110435	Wouter Fourie	14/02/2013	Heritage Statement: Maanhaarberg 132kv
108989	Gideon Groenewald	18/12/2012	Palaeontological Desktop - Proposed Construction Of Two 132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1) Near De Aar, Northern Cape
108984	Wouter Fourie	10/01/2013	Hia - Proposed Construction Of Two 132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1) Near De Aar, Northern Cape
108993	Wouter Fourie	10/01/2013	Hia - Addendum -132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1)
129751	Elize Becker	20/02/2013	Phase 1 Heritage Impact Assessment Hotazel To Kimberley And De Aar To Port Of Ngqura
183142	Jaco van der Walt	30/10/2014	Archaeological Impact Assessment Report For The Proposed Castle Wind Energy Facility, De Aar, Northern Cape
8086	Johan Nel	14/11/2008	Final Report Heritage Resources Scoping Survey & Preliminary Assessment Transnet Freight Line Eia, Eastern Cape And Northern Cape
151280	Jaco van der Walt	26/08/2013	Archeological Scoping Report For The Proposed Castle Wef Near De Aar, Northern Cape Province
108984	Wouter Fourie	10/01/2013	Hia - Proposed Construction Of Two 132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1) Near De Aar, Northern Cape
108993	Wouter Fourie	10/01/2013	Hia - Addendum -132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1)
183143	Barry Millstead	24/11/2014	Full Palaeontological Heritage Impact Assessment Report On A Portion Of A Proposed Wind Energy Generation Facility (the Castle Project); This Being On The Eastern Extent Of The Farm Knapdaar 8 Near De Aar, Northern Cape Province



108989	Gideon Groenewald	18/12/2012	Palaeontological Desktop - Proposed Construction Of Two 132kv Transmission Lines From The Maanhaarberg And Damfontein Wind Energy Facilities (de Aar 1) Near De Aar, Northern Cape
151284	John E Almond	31/08/2013	Palaeontological Heritage Assessment: Desktop Study
163451	Wouter Fourie	27/03/2014	Proposed Construction Of A 132kv Transmission Line From The Longyuan Mulilo De Aar 2 North Wind Energy Facility On The Eastern Plateau (de Aar 2) Near De Aar, Northern Cape
93185	Elize Becker	01/11/2012	Phase 1 Heritage Impact Assessment Hotazel To Kimberley And De Aar To Port Ngqura
92575	Elize Becker	10/10/2012	Phase 1 Heritage Impact Assessment Kimberley To De Aar
114648	John E Almond	01/09/2012	Palaeontological Specialist Assessment: Desktop Study proposed 16 Mtpa Expansion Of Transnets Existing Manganese Ore Export Railway Line & Associated Infrastructure Between Hotazel And The Port Of Ngqura, Northern & Eastern Cape.
151768	John E Almond	01/11/2013	Palaeontological Specialist Assessment: Combined Desktop And Field-based Study: Proposed 16 Mtpa Expansion Of Transnets Existing manganese Ore Export Railway Line & Associated Infrastructure Between Hotazel And The Port Of Ngqura, Northern & Eastern
110435	Wouter Fourie	14/02/2013	Heritage Statement: Maanhaarberg 132kV
4052	Albert van Jaarsveld	01/03/2006	Hydra-Perseus and Beta-Perseus 765 kV Transmission Power Lines Environmental Impact Assessment. Impact on Cultural Heritage Resources
49745	Neels Kruger	01/03/2012	Archaeological Impact Assessment (aia) Of Demarcated Surface Areas On The Of The Farm Vetlaagte 4, De Aar, Northern Cape Province
177599	Jonathan Kaplan	01/04/2010	Archaeological Impact Assessment Proposed Photovoltaic Power Generation Facility in De Aar Northern Cape
6970	David Morris	02/09/2011	Paarde Valley. Ilanga Lethemba PV Solar Energy Facility. Specialist input for the environmental impact assessment phase and environmental management programme for the proposed Ilanga Lethemba Solar Energy Facility, near De Aar, Northern Cape province
6971	Johnny Van Schalkwyk	30/04/2011	Heritage Impact Scoping report for the proposed establishment of the Ilanga Lethemba PV Solar Energy Facility, near De Aar, Northern Cape Province.



138865	Jayson Orton	10/07/2013	Heritage Impact Assessment For Multiple Proposed Solar Energy Facilities On Du Plessis Dam 179, De Aar, Northern Cape
133138	Jayson Orton, Lita Webley	09/07/2013	Heritage Impact Assessment For Multiple Proposed Solar Energy Facilities
50006	Jayson Orton	20/02/2012	Heritage Impact Assessment For Three Solar Energy Facilities At De Aar, Western Cape
256413	Jayson Orton	09/07/2013	Heritage Impact Assessment for Multiple Proposed Solar Energy Facilities on De Aar 180/1 (Badenhorst Dam Farm), De Aar, Northern Cape
45021	Wouter Fourie	13/04/2012	Concentrated Solar Power Eia De Aar Heritage Impact Assessment
89361	Neels Kruger	01/03/2012	Ennex Developments: Proposed Establishment Of A Solar Energy Facility Near De Aar, Northern Cape Province Phase 1 Archaeological Impact Assessment Report
256364	Jayson Orton	10/07/2013	Heritage Impact Assessment For Multiple Proposed Solar Energy Facilities On Du Plessis Dam 179, De Aar, Northern Cape
8378	Jayson Orton	29/02/2012	Hia For Three Solar Energy Facilities At The De Aar, Northern Cape (paarde Valley, Badenhorst Dam Farm And Annex Du Plessis Dam Farm)
133536	John E Almond	01/07/2013	Palaeontological Specialist Study
256408	John E Almond	16/07/2013	Palaeontological Specialist Study: Combined Desktop and Field-based Assessments - Proposed Photovoltaic (Solar) Energy Facilities on Badenhorst Dam Farm near De Aar, Northern Cape
256363	John E Almond	15/06/2013	Palaeontological Specialist Study: Combined Desktop and Field-based Assessments: Proposed Photovoltaic (Solar) Energy Facilities on Du Plessis Dam Farm near De Aar, Northern Cape.
138940	John E Almond	10/07/2013	Palaeontological Specialist Study: Combined desktop and field-based assessments for the proposed Photovoltaic (Solar) Energy Facilities on Du Plessis Dam Farm near De Aar, Northern Cape
49843	John E Almond	01/05/2012	Palaeontological Specialist Study: Combined Desktop And Field-based Assessments Proposed Solar Power Generation Facilities On The Remaining Extent Of The Farm Vetlaagte No. 4, De Aar, Northern Cape Province



104804	John E Almond	01/09/2012	Palaeontological Specialist Assessment: Desktop Study Proposed Renosterberg Solar Pv And Wind Energy Facilities Near De Aar, Northern Cape Province
177600	Will Archer, Jonathan Kaplan	01/05/2012	Reconnaissance and plan for further mitigation: sites impacted on by proposed photovoltaic power generation facility in De Aar Northern Cape
104576	Wouter Fourie	10/10/2012	Heritage Scoping Report for the Proposed Solar PV Facility for Renosterberg Wind Energy Company (RWEK) near Petrusville, Northern Cape Province
104574	Wouter Fourie	10/10/2012	Heritage Scoping Report for the Proposed Wind Farm Facility for Renosterberg Wind Energy Company (RWEK) near Petrusville, Northern Cape Province
163994	Wouter Fourie	03/08/2013	Proposed PV Facility: Heritage Impact Report
163982		31/08/2013	Palaeontological specialist assessment: combined desktop and field study: Proposed development PV Solar Facility near De Aar, Northern Cape Province



APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (Kwa-Zulu 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 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 4 - Methodology

The Heritage Screener summarises the heritage impact assessments previously undertaken within the area of the proposed development and its surroundings. All heritage resources identified in these reports are extracted and mapped 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 with a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEONTOLOGICAL SENSITIVITY

Furthermore, the Heritage Screener will gauge the possible impact of the development on palaeontological resources by using the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS), the nature of the proposed development and, when available, the information on the geological background of the area provided by the applicant.



DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report that is assessed for the compilation of the heritage screener is mapped on the screener according to the available mapping in the report. 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. If this is not the case in certain polygons it will be taken into consideration in the attribution of the coverage category.

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.

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.**