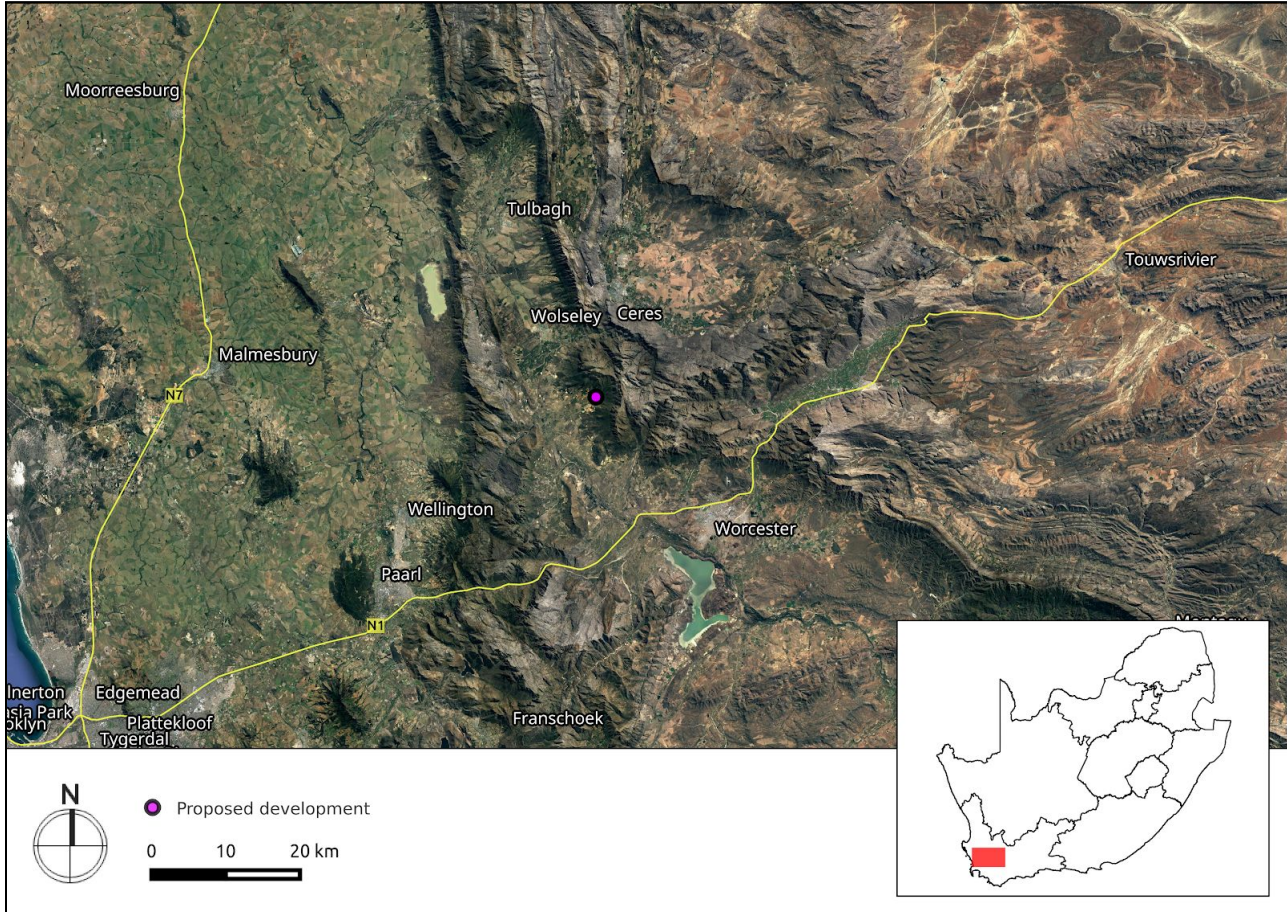


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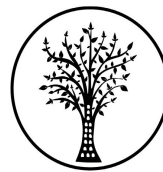
HERITAGE SCREENER

CTS Number:	Reference	CTS18_010
HWC Reference:		18030118
Client:		EnviroAfrica
Date:		1 March 2018
Title:	PROPOSED WATER DISTRIBUTION STRUCTURE AND PIPELINE IN THE SNELRIVER.	
	 <p>Figure 1a. Satellite map indicating the location of the proposed development in the Western Cape Province</p>	
Recommendation by CTS Heritage Specialists:	RECOMMENDATION: The heritage resources in the area proposed for development are sufficiently recorded See Section 8 for full recommendations.	

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1. Proposed Development Summary

The Wagenboomsrivier & Darling Brug Irrigation Boards propose to construct a water distribution structure (weir) and pipeline in the Wabooms River. The proponent wishes to construct a weir and water pipeline to distribute water from the mountain top catchment areas to the towns in the valley. This has become necessary since the population and housing development in the Boland area has grown considerably over the last decade. Additional water supply is also needed for agricultural use.

2. Application References

Name of relevant heritage authority(s)	Heritage Western Cape
Name of decision making authority(s)	Department of Environmental Affairs and Development Planning

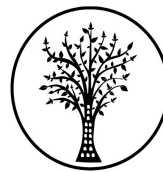
3. Property Information

Latitude / Longitude	-33.497488° / 19.279316°
Erf number / Farm number	5/602, 2/602, 6/602, 4/602, RE/602, RE/706, 5/196, 9/196, 1/196, 6/196, 8/196, 918
Local Municipality	Witzenberg Municipality
District Municipality	Boland Municipality
Previous Magisterial District	Worcester
Province	Western Cape
Current Use	Agricultural
Current Zoning	Agricultural
Total Extent	3km

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4. Nature of the Proposed Development

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

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.	X
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

NA

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

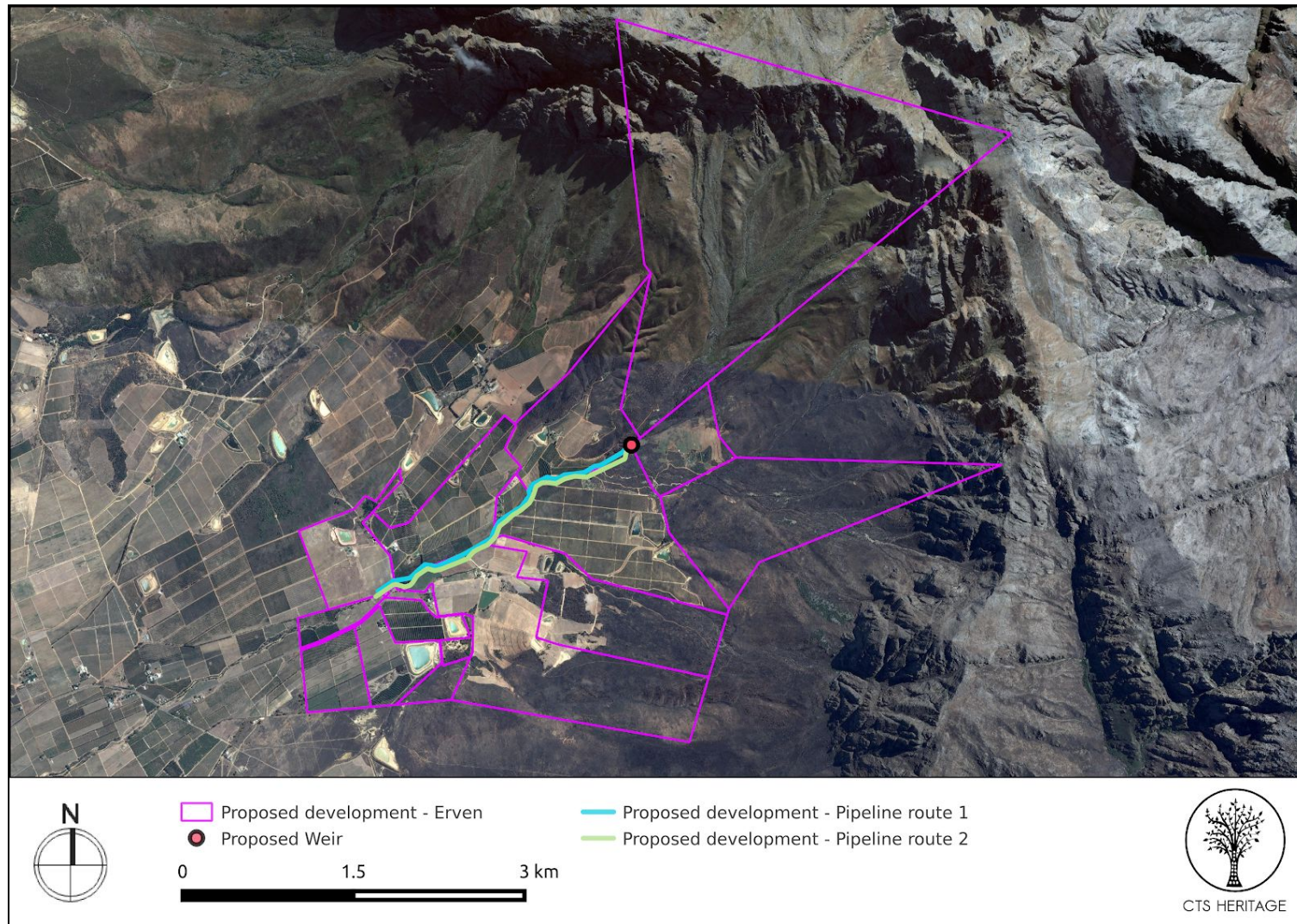


Figure 1b. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.

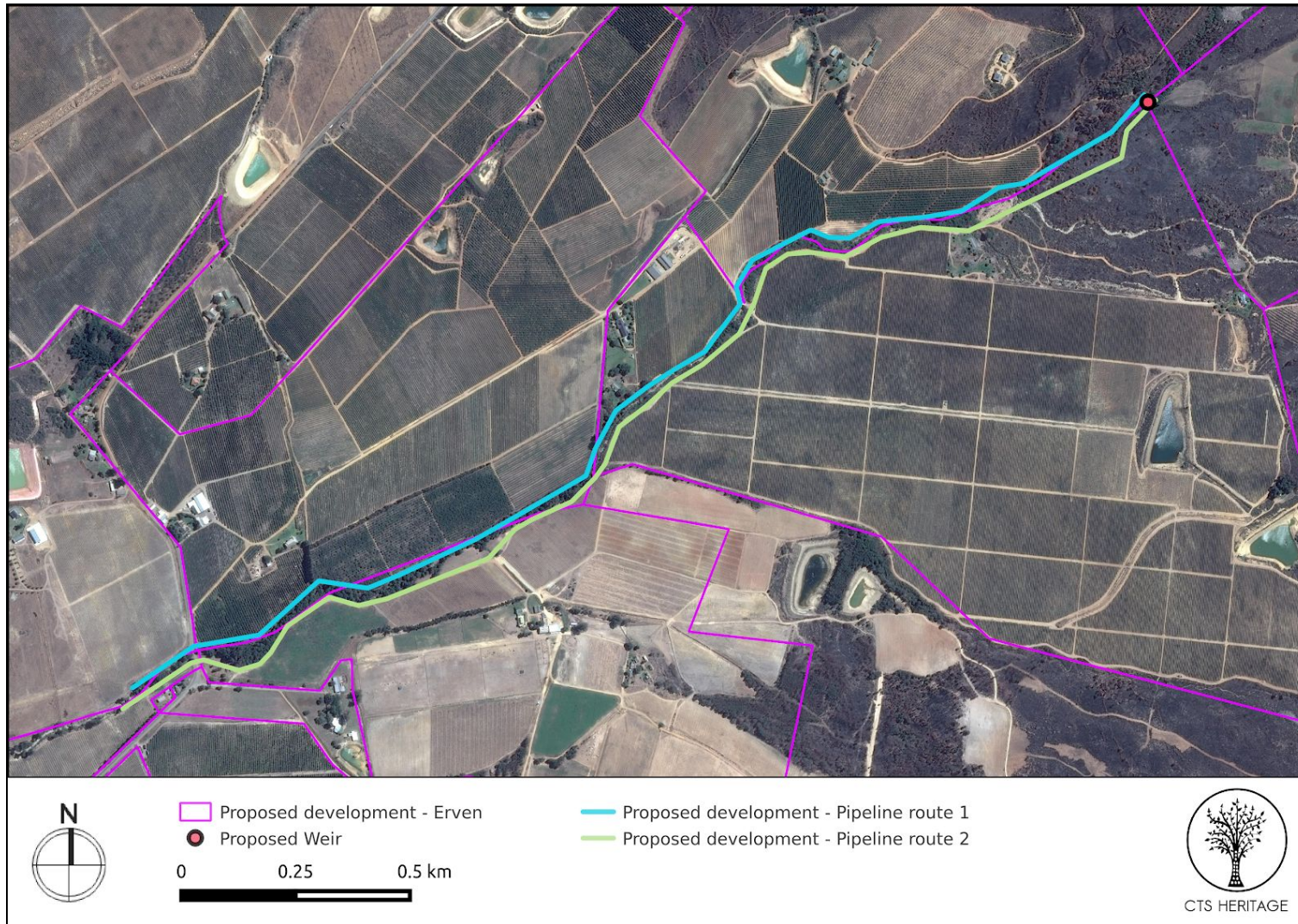


Figure 1c. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.

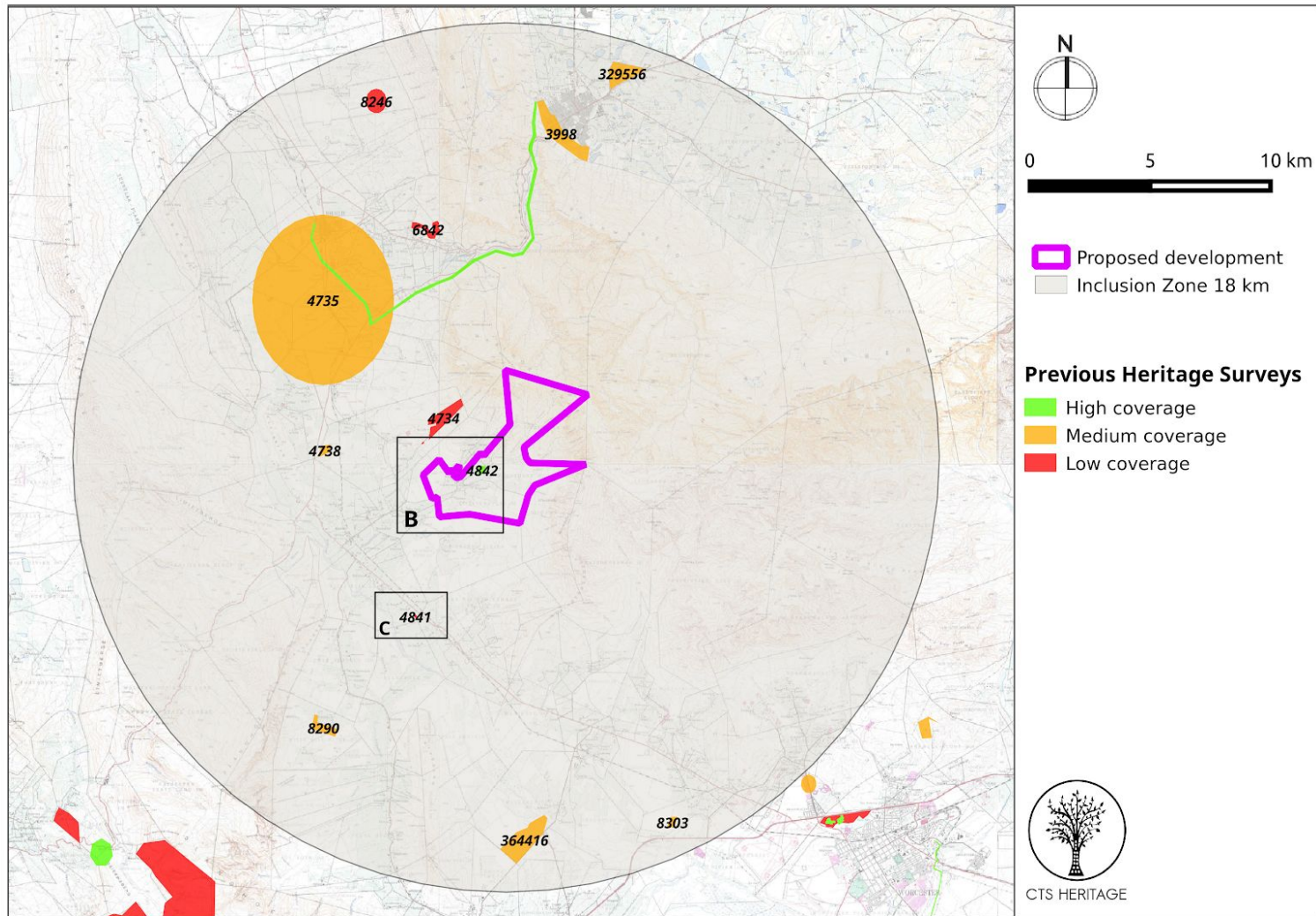
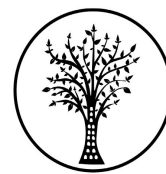


Figure 2a. Previous HIAs Map. Previous Heritage Impact Assessments (excluding PIAs) surrounding the proposed development area within 18kms, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list).



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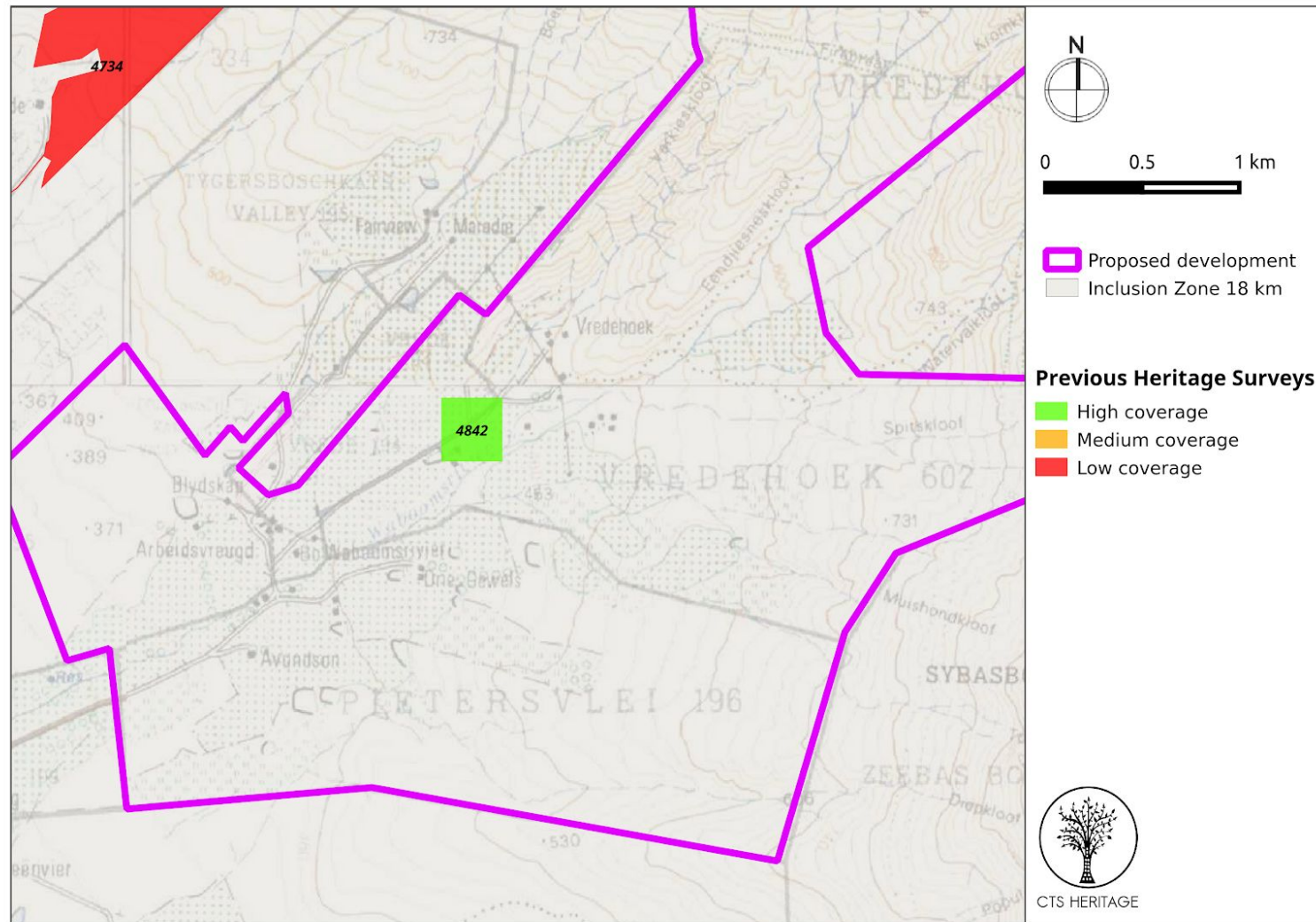
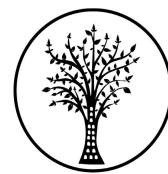


Figure 2b. Inset Map.



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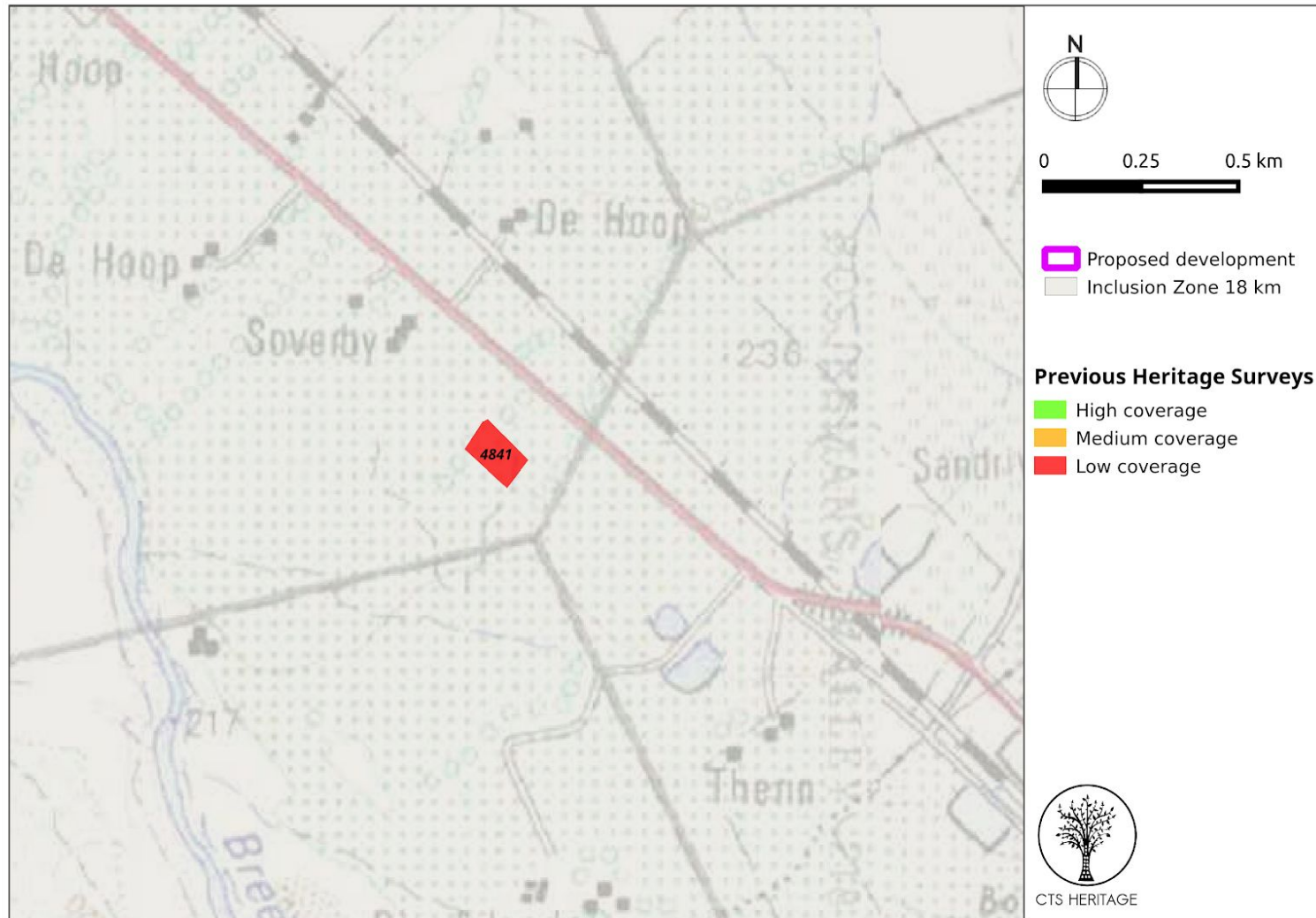


Figure 2c. Inset Map.

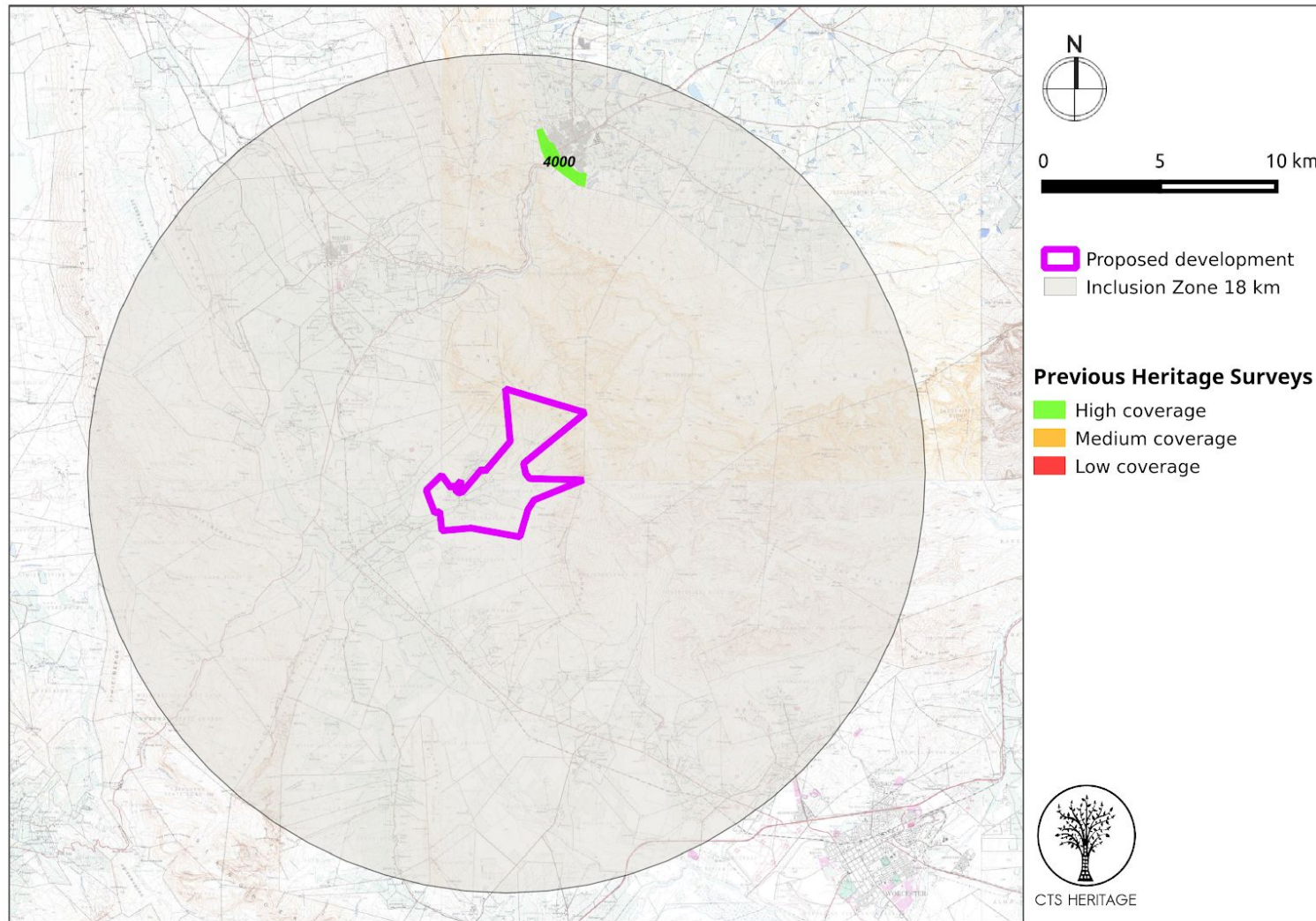


Figure 2d. Previous PIAs Map. Previous Palaeontological Impact Assessments surrounding the proposed development area within 18km, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list).

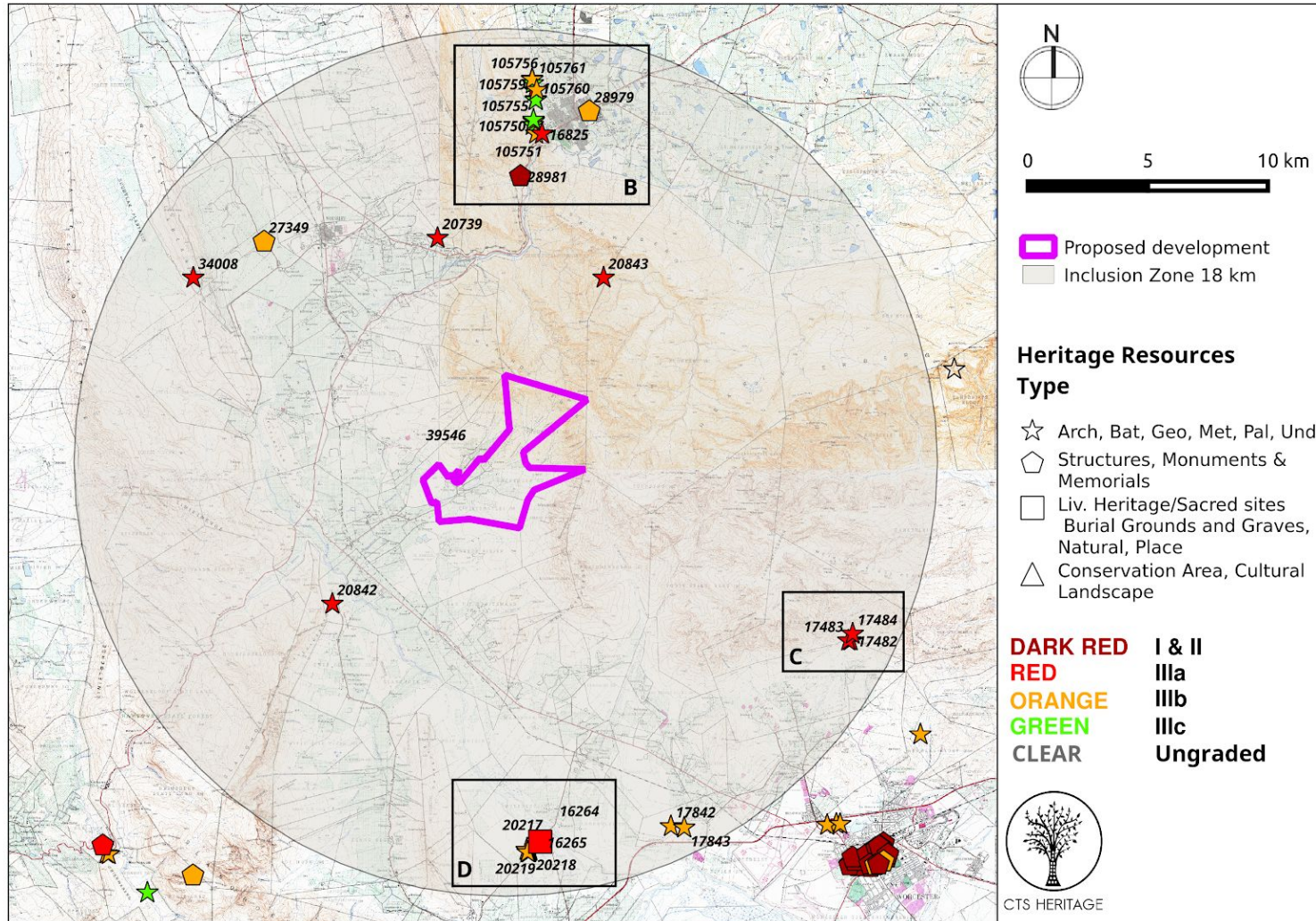
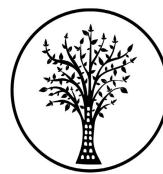


Figure 3a. Heritage Resources Map. Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figures 3b-3d for insets). See Appendix 4 for full description of heritage resource types.



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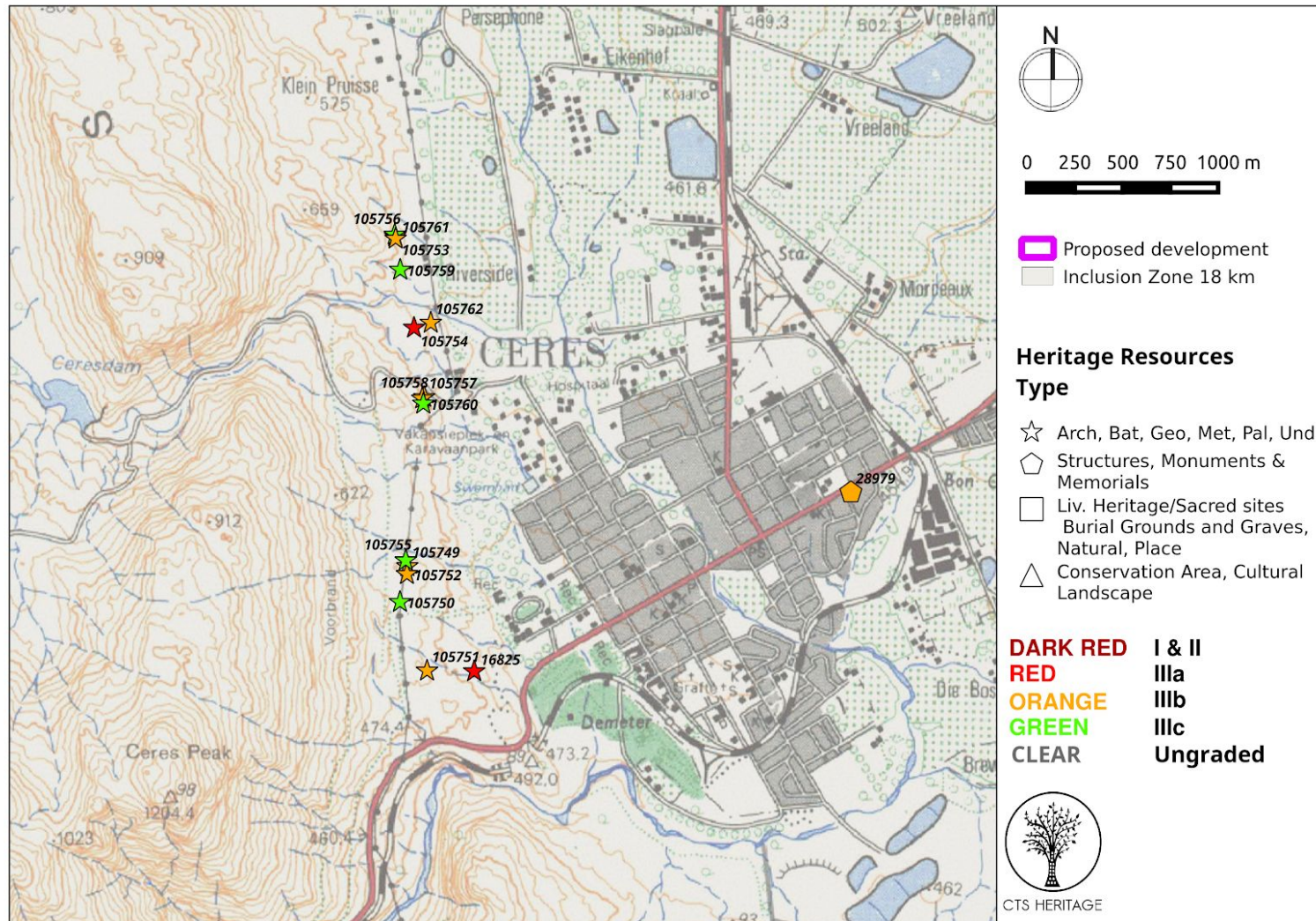
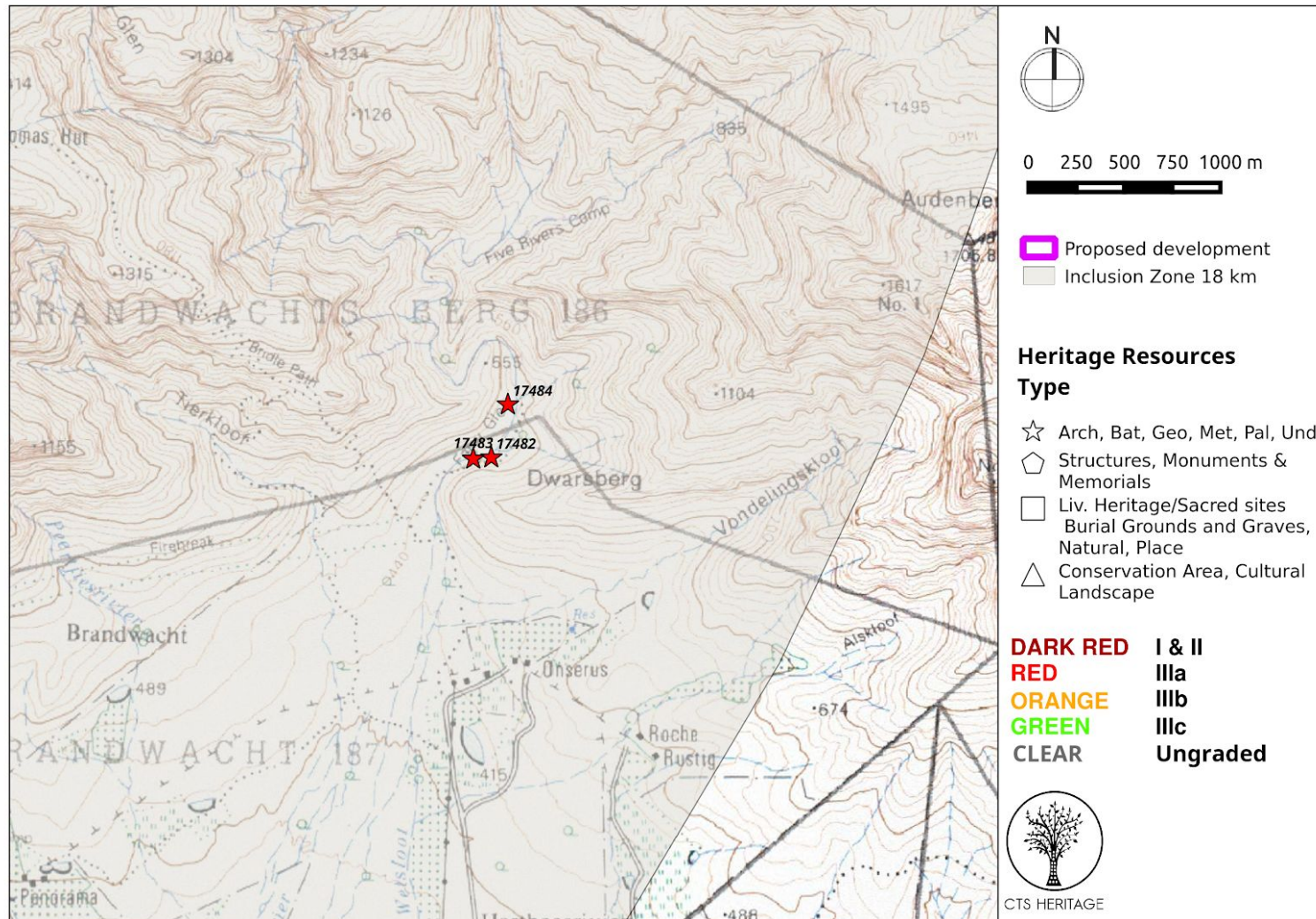
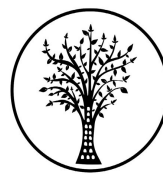


Figure 3b. Inset map.



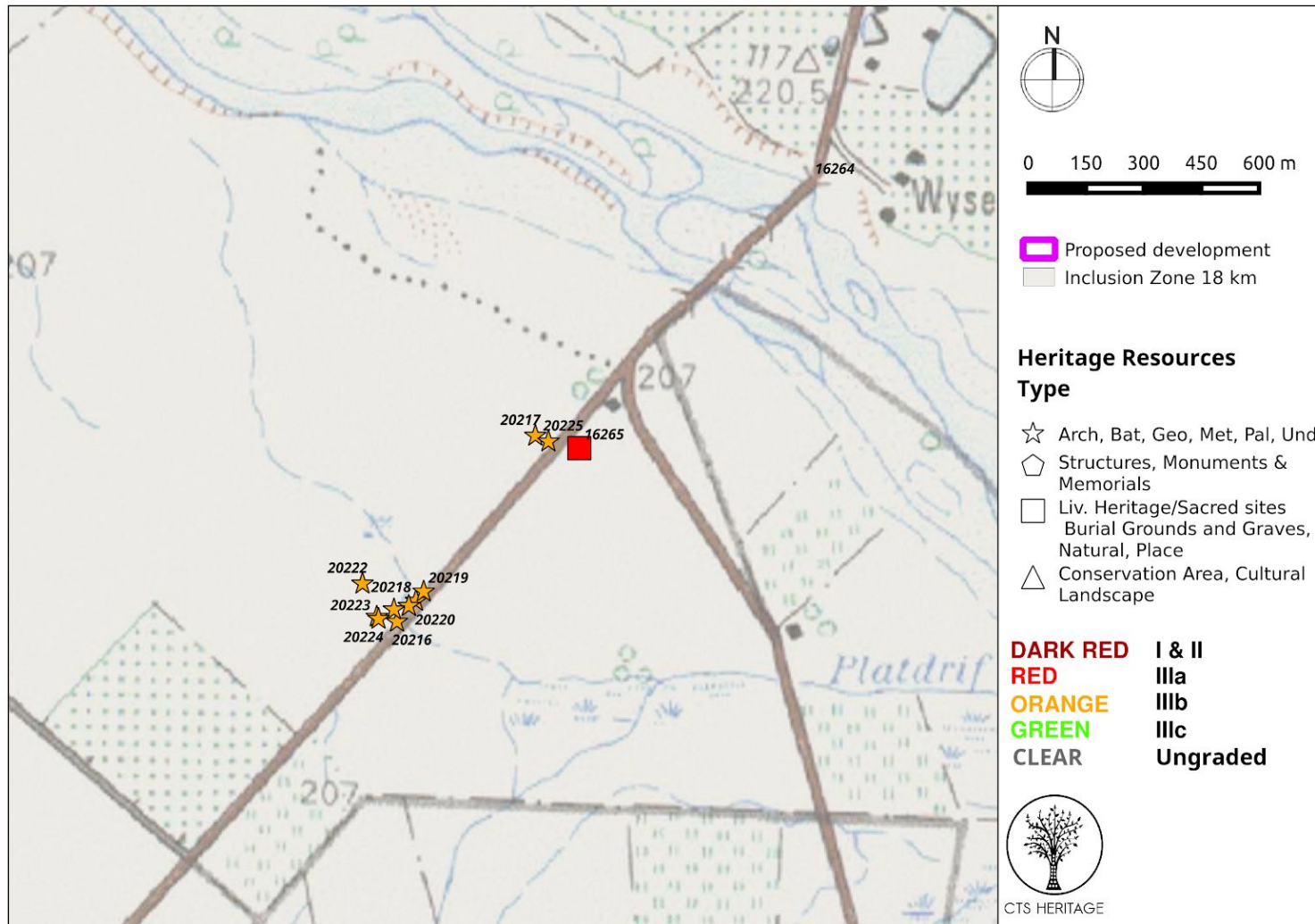


Figure 3d. Inset map. Indicating spatial layout of sites in this area. Please see Appendix 1 for all Site IDs.

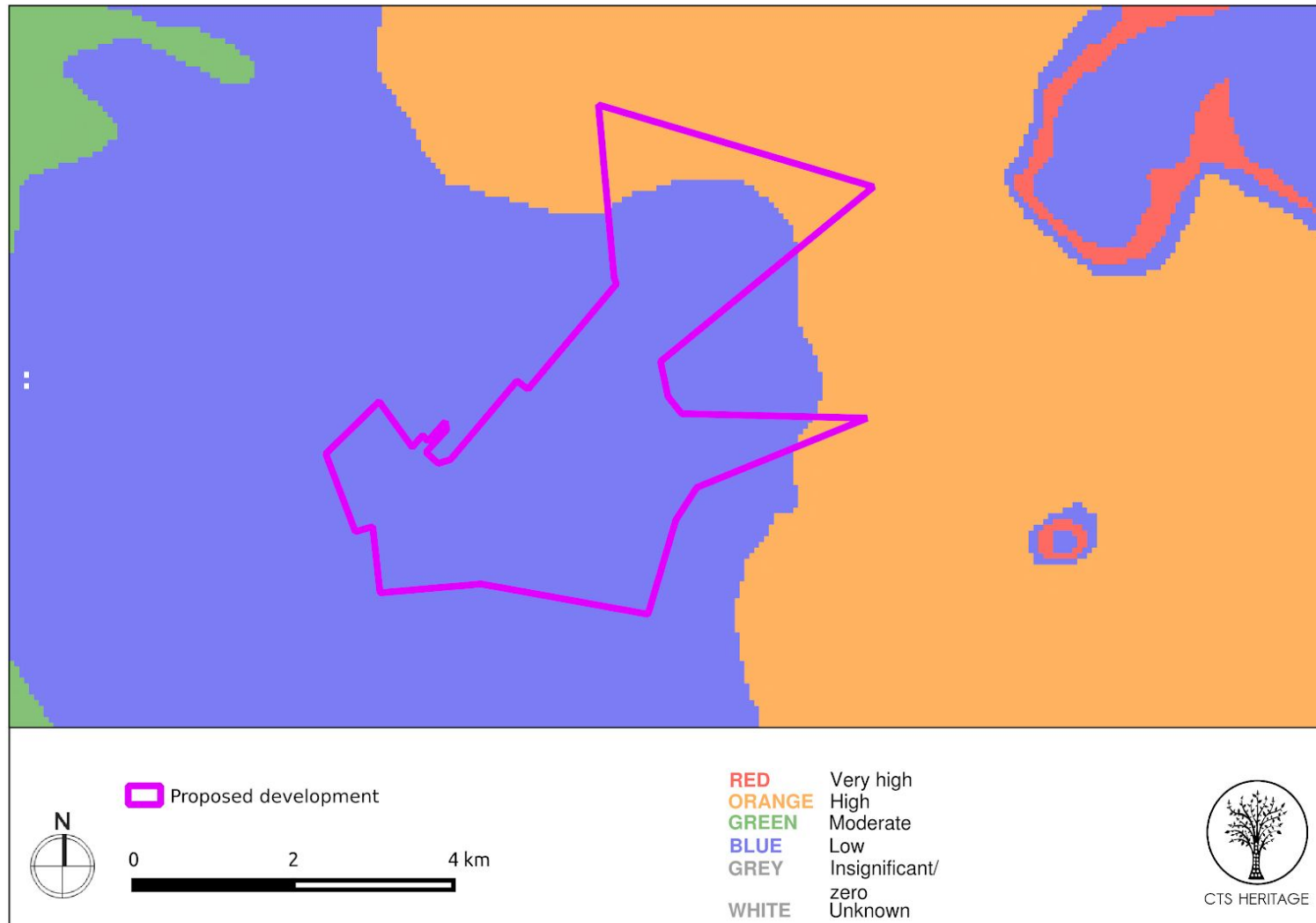
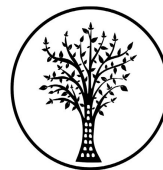


Figure 4. Palaeosensitivity Map, Indicating varied fossil sensitivity underlying the study area. See Appendix 3 for full guide to the legend.



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8. Heritage statement and character of the area

The Wagenboomsrivier & Darling Brug Irrigation Boards propose to construct a water distribution structure (weir) and pipeline in the Wabooms River. The proponent wishes to construct a weir and water pipeline to distribute water from the mountain top catchment areas to the towns in the valley. There are two alternative pipeline routes that have been proposed (routes 1 and 2). This has become necessary since the population and housing development in the Boland area has grown considerably over the last decade. In addition, additional water supply is needed for agricultural use. Two vineyards (Vredehoek Vineyards and Silkbush Mountain Vineyards), Mostert's Hoek Guesthouse, and several farms and fruit farms are within the proposed development erven. Farms 5/602, 2/602, 6/602, 4/602, RE/602, RE/706, 5/196, 9/196, 1/196, 6/196, 8/196, 918 lie within the proposed development erven. The proposed position of the weir is placed on the rivers side edge of farm 2/602, and the proposed pipeline routes 1 and 2 run from the weir along farms 2/602, RE/706, 18/195, 5/196, 9/196, RE/796, 3/196, through RE/602, and terminating at farms 18/195 and RE/706. The total length in kilometres of proposed pipeline routes 1 and 2 is approximately 3.2km. Hiking huts Pell's Hut and Hoare's Hut, which are the property of the Mountain Club of South Africa, are proximately situated to farm 5/602 (approximately 3km) although are not in the proposed development erven.

The site lies about 20km SE of Wolseley, 27km south of Ceres, and just under 40km NE of Worcester. The site is situated in a mountainous area and can only be accessed via private and commercial farmland from the R43. Two vineyards, Vredehoek Vineyards and Silkbush Mountain Vineyards, Mostert's Hoek Guesthouse, and several farms and fruit farms are within the proposed development erven, however the impact will be limited to the Wabooms River.

Previous Heritage Impact Assessments have been undertaken within the inclusion zone surrounding the proposed development area within 18kms. However, none have been compiled in the proposed development area. Heritage resources identified within 18km of the proposed development include rock art sites, archaeological sites, historical structures including the Anglo-Boer War blockhouse located on Tulbagh Road as well as the Old Tollhouse found near Ceres. In addition, burial grounds and graves have been documented at Badsberg 2. However, as the proposed development is limited to the Wabooms River, it is unlikely that the proposed development of a weir and pipeline will impact on significant archaeological or built environment heritage resources.

The impact of the proposed development on palaeontological material is likely to be very low. The proposed development area comprises mainly Porterville and Norree Formations (Malmesbury Group), Peninsula Formation (Table Mountain Group), and modern-aged colluvium soils in the lowlands. These formations are not known to contain fossils. As such, it is unlikely that the proposed development will impact on significant palaeontological resources.

Based on the information provided above and information included in previous heritage studies conducted in the area, it is unlikely that the proposed development of a pipeline and weir will impact significant heritage resources and as such, it is recommended that no further heritage studies are required.

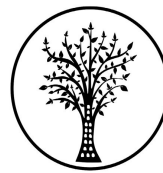
RECOMMENDATION:

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. Based on the available information, the proposed development is likely to impact on heritage resources and as such, it is recommended that a complete Heritage Impact Assessment is required that assesses impacts to landscape character and archaeological resources.

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APPENDIX 1

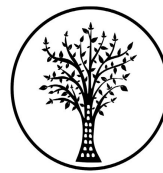
List of heritage resources within the 18km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading	Declaration
16264	BDBSBERG1	Badsberg 1	Ruin & 100 years	NA	NA
16265	BDBSBERG2	Badsberg 2	Burial Grounds Graves	NA	NA
16825	CER015	Ceres Nature Reserve 15	Rock Art	NA	NA
17482	FAIRY1	Fairy Glen 1	Rock Art	NA	NA
17483	FAIRY2	Fairy Glen 2	Rock Art	NA	NA
17484	FAIRY3	Fairy Glen 3	Rock Art	NA	NA
17842	HBRIVIER1	Hartebeest Rivier 1	Artefacts	NA	NA
17843	HBRIVIER2	Hartebeest Rivier 2	Artefacts	NA	NA
20216	SYM1	Symington Trust 1	Artefacts	NA	NA
20217	SYM10	Symington Trust 10	Artefacts	NA	NA
20218	SYM2	Symington Trust 2	Artefacts	NA	NA
20219	SYM3	Symington Trust 3	Artefacts	NA	NA
20220	SYM4	Symington Trust 4	Artefacts	NA	NA
20221	SYM5	Symington Trust 5	Artefacts	NA	NA
20222	SYM6	Symington Trust 6	Artefacts	NA	NA
20223	SYM7	Symington Trust 7	Artefacts	NA	NA
20224	SYM8	Symington Trust 8	Artefacts	NA	NA
20225	SYM9	Symington Trust 9	Artefacts	NA	NA
20739	WAV01	Waverley 1	Rock Art, Artefacts	NA	NA
20842	WIT1	Witelsboom 1	Rock Art, Artefacts	NA	NA

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20843	WITELS1	Wit Els Rivier 1	Rock Art	NA	NA
27349	9/2/094/0060	Anglo-Boer War blockhouse, Tulbagh Road, Tulbagh District	Building	NA	Deproclaimed
28979	9/2/021/0013	Jan Mostert's Road and Toll House, Mitchell's Pass, Ceres District	Building	NA	Heritage Register
28981	9/2/021/0001	Old Tollhouse, Michell's Pass, Ceres	Building	Grade II	Provincial Heritage Site
34008	ROMAN1	Romansrivier1	Rock Art, Artefacts	NA	NA
39546	LET03	Letodi 03	Ruin; 100 years	Grade IIIc	NA
105749	CER004	Ceres Nature Reserve 04	Artefacts, Deposit, Rock Art	Grade IIIb	NA
105750	CER006	Ceres Nature Reserve 06	Artefacts, Rock Art	Grade IIIc	NA
105751	CER002	Ceres Nature Reserve 02	Artefacts, Rock Art	Grade IIIb	NA
105752	CER005	Ceres Nature Reserve 05	Rock Art, Artefacts	Grade IIIb	NA
105753	CER010	Ceres Nature Reserve 10	Rock Art	Grade IIIb	NA
105754	CER001	Ceres Nature Reserve 01	Rock Art, Artefacts	Grade IIIa	NA
105755	CER003	Ceres Nature Reserve 03	Rock Art	Grade IIIc	NA
105756	CER011	Ceres Nature Reserve 11	Artefacts, Rock Art	Grade IIIc	NA
105757	CER012	Ceres Nature Reserve 012	Rock Art	Grade IIIb	NA
105758	CER013	Ceres Nature Reserve 013	Artefacts, Rock Art	Grade IIIb	NA
105759	CER008	Ceres Nature Reserve 08	Rock Art	Grade IIIc	NA
105760	CER014	Ceres Nature Reserve 014	Artefacts, Rock Art	Grade IIIc	NA
105761	CER009	Ceres Nature Reserve 09	Rock Art, Artefacts	Grade IIIb	NA
105762	CER007	Ceres Nature Reserve 07	Artefacts, Rock Art	Grade IIIb	NA

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APPENDIX 2

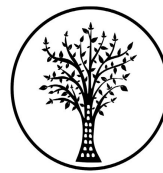
Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
3994	AIA	Jonathan Kaplan	01/06/2005	Phase 1 Archaeological Impact Assessment Proposed Romansrivier Ceres 66 kV Powerline Refurbishment Western Cape Province
3998	AIA	Jonathan Kaplan	01/02/2007	Phase 1 Archaeological Impact Assessment: Proposed Ceres Golf Estate, Hotel and Housing Developments, Ceres, Western Cape Province
4734	AIA	Jonathan Kaplan	17/12/1996	Archaeological Survey: Letodi Private Nature Reserve
4735	AIA	Jonathan Kaplan	01/06/2002	Phase 1 Archaeological Impact Assessment Portion 25 of the Farm Palmiet Valley No.318 Tulbagh
4738	AIA	Jonathan Kaplan	13/03/2007	Phase 1 Archaeological Impact Assessment: Proposed Construction of Chicken Houses on Portion 4 of Portion 2 of the Farm De Liefde No. 323 Tulbagh, Western Cape Province
4841	AIA	Jonathan Kaplan	27/03/2007	Phase 1 Archaeological Impact Assessment: Proposed Construction of Chicken Houses on Portion 3 of the Farm Witte Elseboom No. 214 Worcester
4842	AIA	Jonathan Kaplan	03/05/2007	Phase 1 Archaeological Impact Assessment: Proposed Construction of a New Wine Cellar and Associated Infrastructure on the Remainder of the Farm Vredehoek 602 Worcester, Western Cape Province
6842	AIA	Jonathan Kaplan	01/02/2009	Phase 1 Archaeological Impact Assessment: Proposed Expansion of Agricultural Land on the Farms Waverley 380 and Gou Kyk 366 Wolseley, Western Cape Province
8246	AIA	Jonathan Kaplan	01/05/2005	Phase 1 Archaeological Impact Assessment Proposed Development on Portions 5 & 6 of the Farm Weltevreden No.236 Tulbagh Western Cape Province
8290	AIA	Jonathan Kaplan	29/10/2007	Archaeological Impact Assessment: Proposed Construction of Chicken Houses on the Farm Witels 775/R, Worcester, Western Cape Province
8303	AIA	Jayson Orton	05/08/2008	Heritage Statement for Proposed Breede Valley Shell Ultra City on Portion 61 of Farm De Mond van Hartebeest Rivier 379, Worcester Magisterial District, Western Cape
329556	AIA	Liezl van	03/05/2010	Phase 1 Archaeological Impact Assessment Report Over Farm 364/72 & Portion Farm 364/18 (95.53 Ha), Ceres, Witzenberg

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		Pletzen-Vos, Renee Rust		Municipality, Western Cape.
364416	AIA	Jonathan Kaplan	01/02/2010	Archaeological Assessment Of Portion 22 Of Farm 386 Wyersdrift Rawsonville Western Cape: Section 24g Application

Palaeontological Impact Assessments				
Nid	Report Type	Author/s	Date	Title
4000	PIA	John E Almond	01/04/2007	Ceres Golf Estate, Hotel and Housing Developments: Palaeontological Impact Assessment, Desktop Study

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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 (National)
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 (National)
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

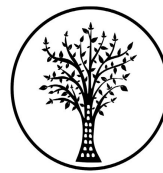
Full guide to Palaeosensitivity Map legend

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

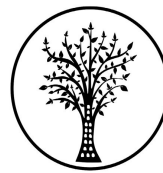
DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

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

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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

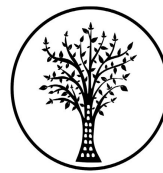
(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for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

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.**

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