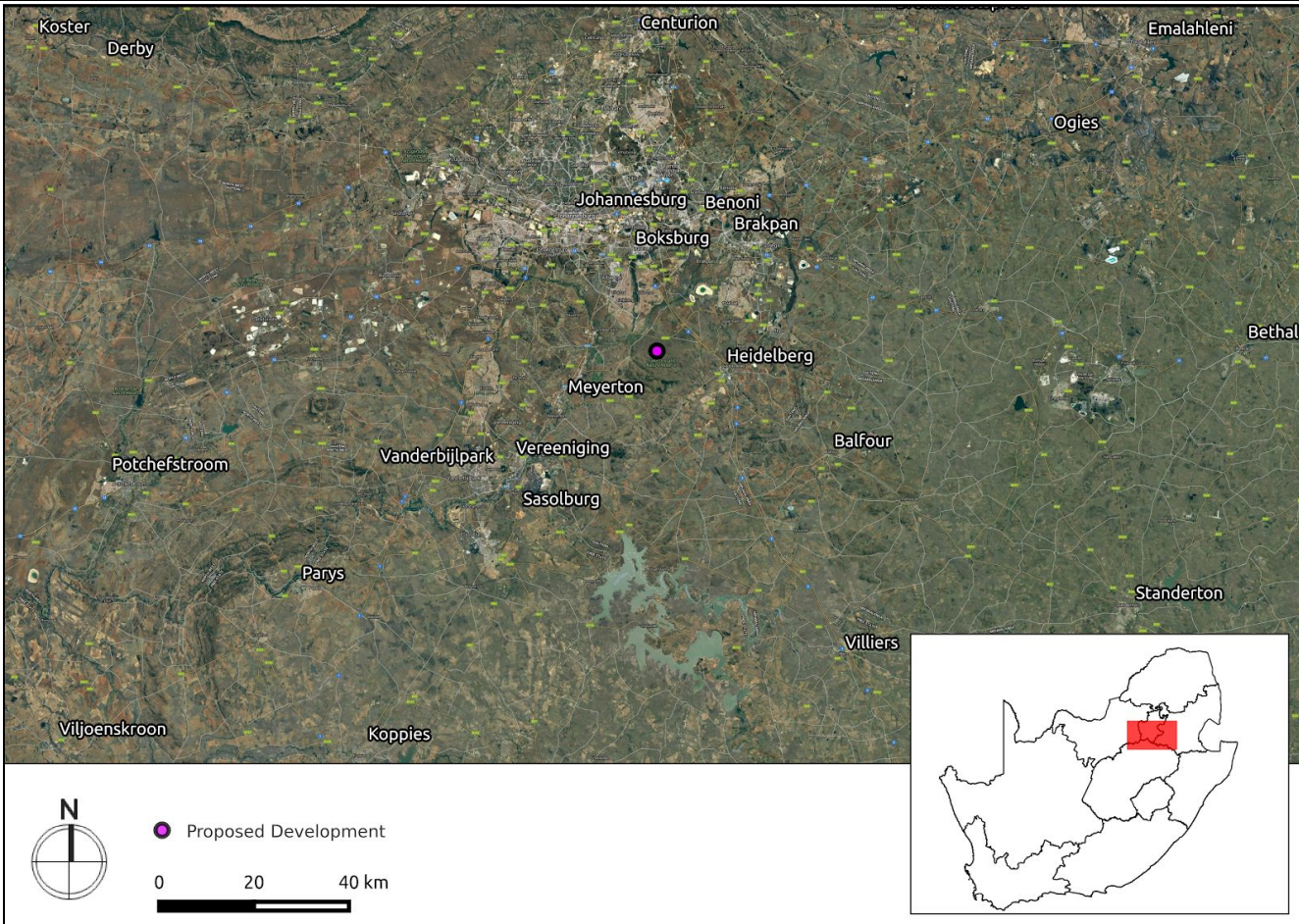




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HERITAGE SCREENER

CTS Reference Number:	CTS18_067	 <p>Figure 1a. Satellite map indicating the location of the proposed development in the Gauteng Province</p>
SAHRIS CASE ID:	12428	
Client:	GKM Environmental Services	
Date:	April 2018	
Title:	Proposed Restorative work to Northern Water Pipeline within Suikerbosrand Nature Reserve, Gauteng	
Recommendation by CTS Heritage Specialists:	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. See Section 8 for full recommendations.	



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1. Proposed Development Summary

Restorative work to Northern Water Pipeline within Suikerbosrand Nature Reserve

2. Application References

Name of relevant heritage authority(s)	SAHRA, PHRAG
Name of decision making authority(s)	GDARD

3. Property Information

Latitude / Longitude	26°27'43.16"S 28°13'14.31"E
Erf number / Farm number	Diepkloof Farm No 182, Portion 21 and 23
Local Municipality	Lesedi
District Municipality	Sedibeng
Previous Magisterial District	Heidelberg
Province	Gauteng
Current Use	Nature Reserve
Current Zoning	Open Area
Total Extent	NA

4. Nature of the Proposed Development

Total Surface Area	NA
Depth of excavation (m)	1.2m and 750mm wide
Height of development (m)	The pipeline will be underground but a tank will be 2.5m above ground
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.	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

Water pipeline and water tank



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

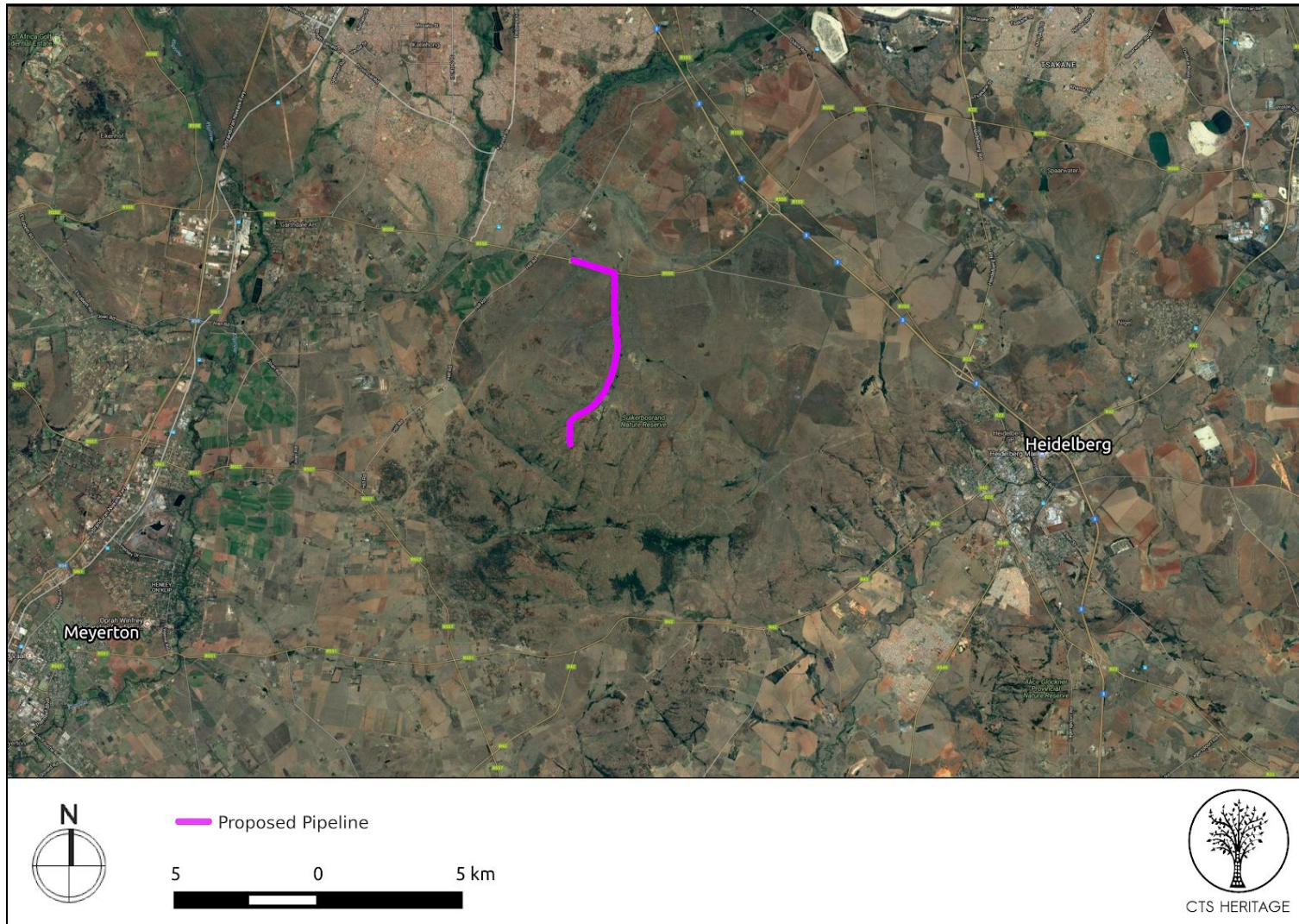


Figure 1b. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.



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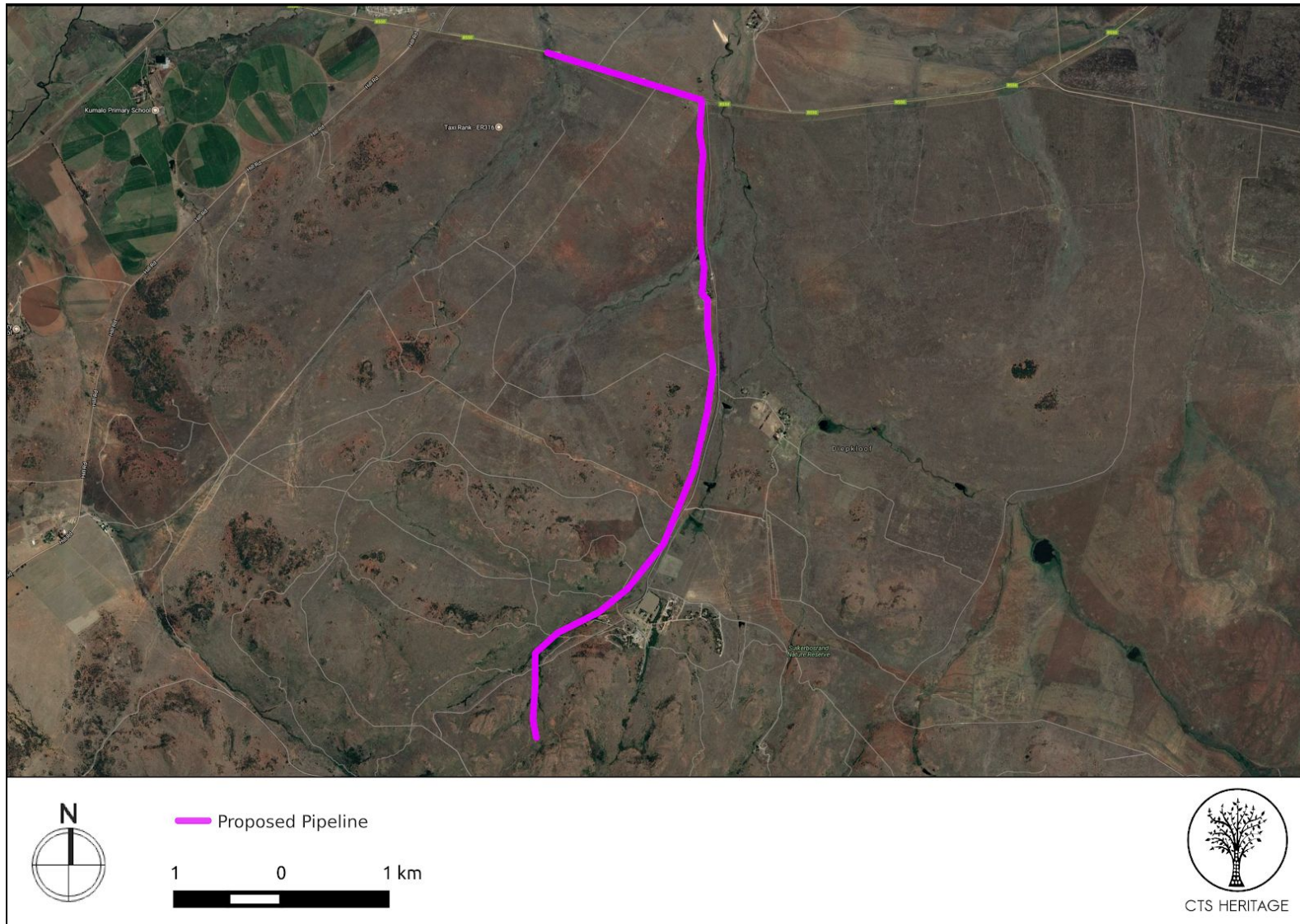


Figure 1c. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.



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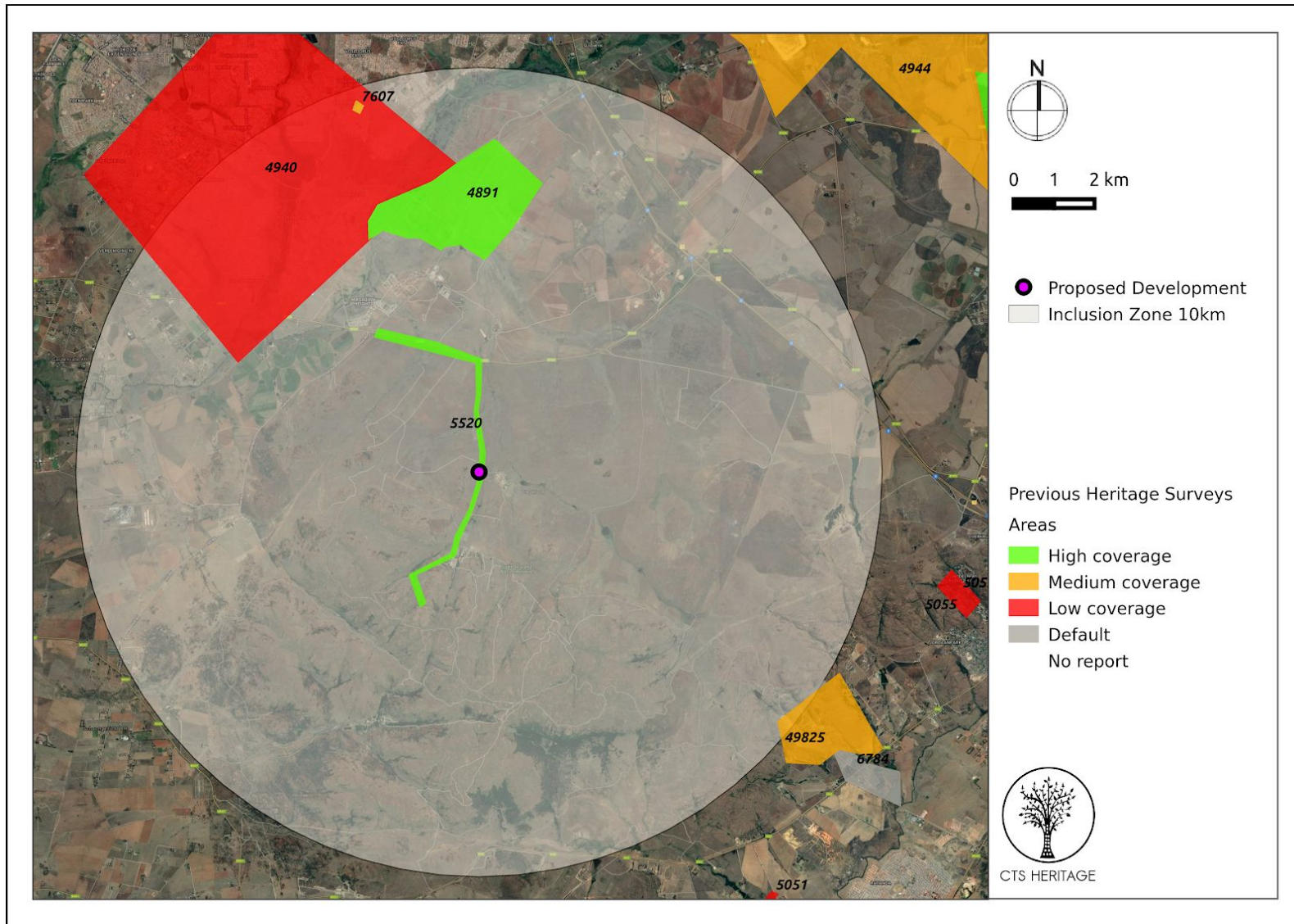


Figure 2a. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 10km, with SAHRIS NIDS indicated. Please see Appendix 2 for full reference list.



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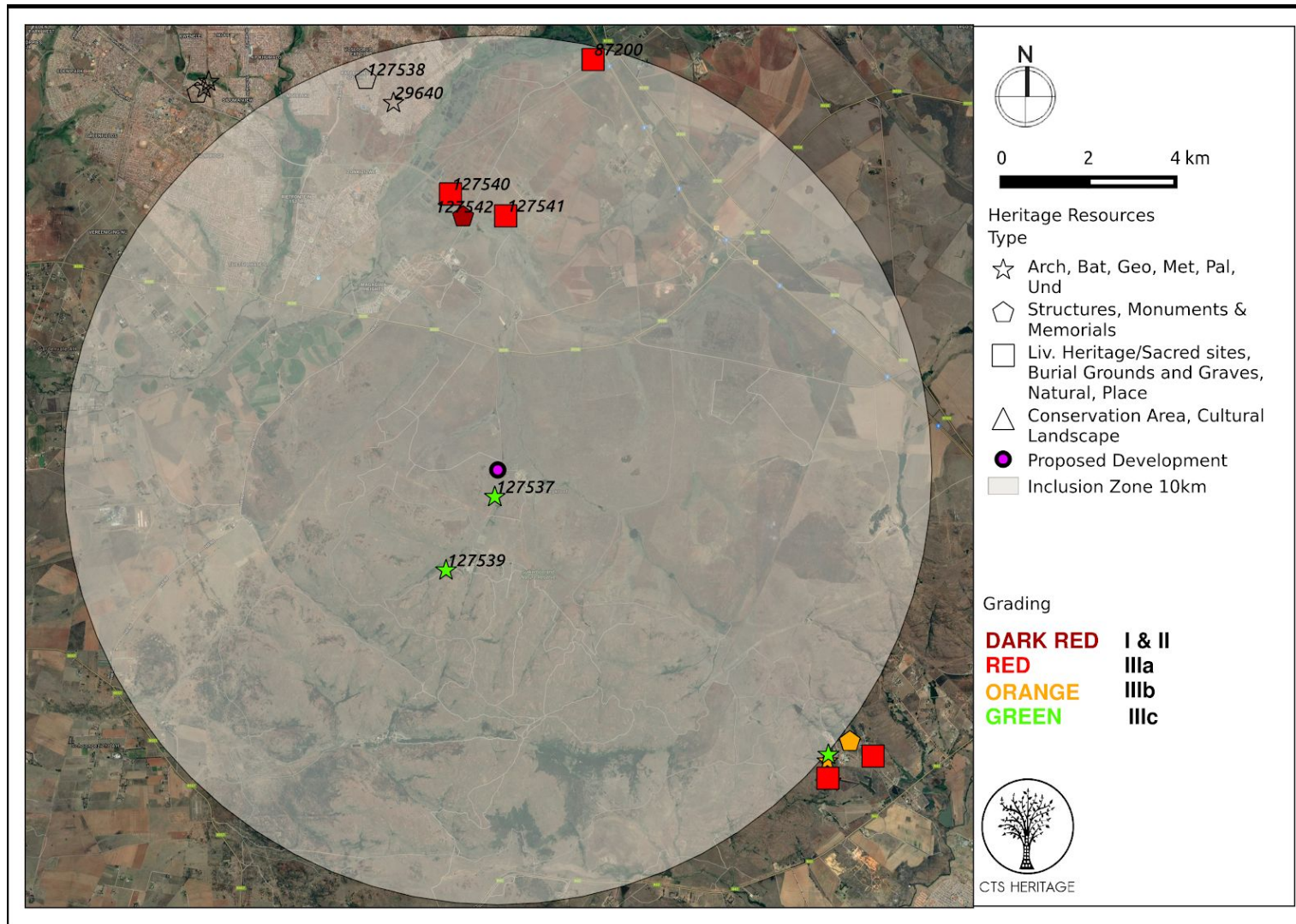


Figure 3a. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.



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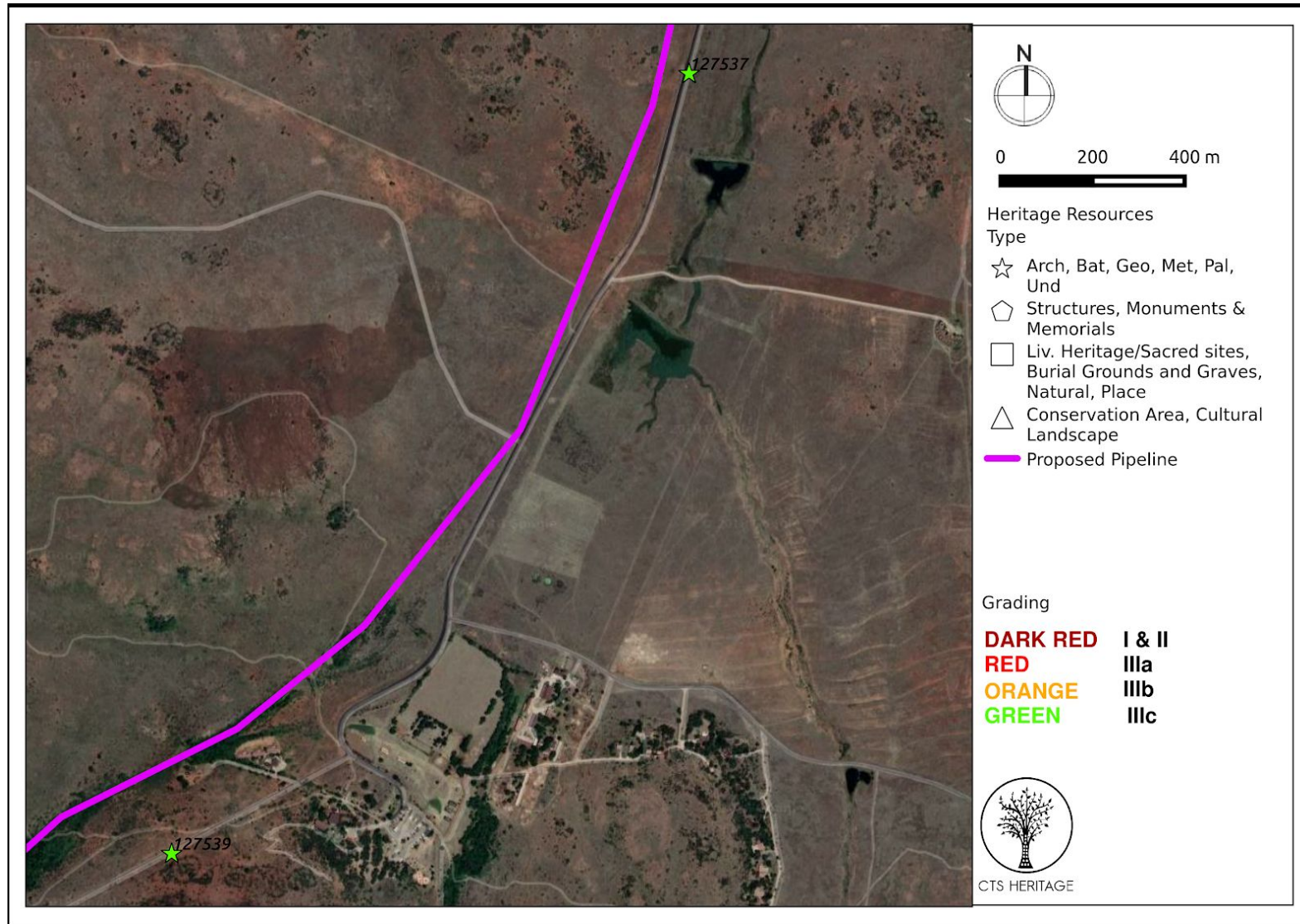


Figure 3b. Heritage Resources Map. Close up map of heritage resources previously identified in and near the study area with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.



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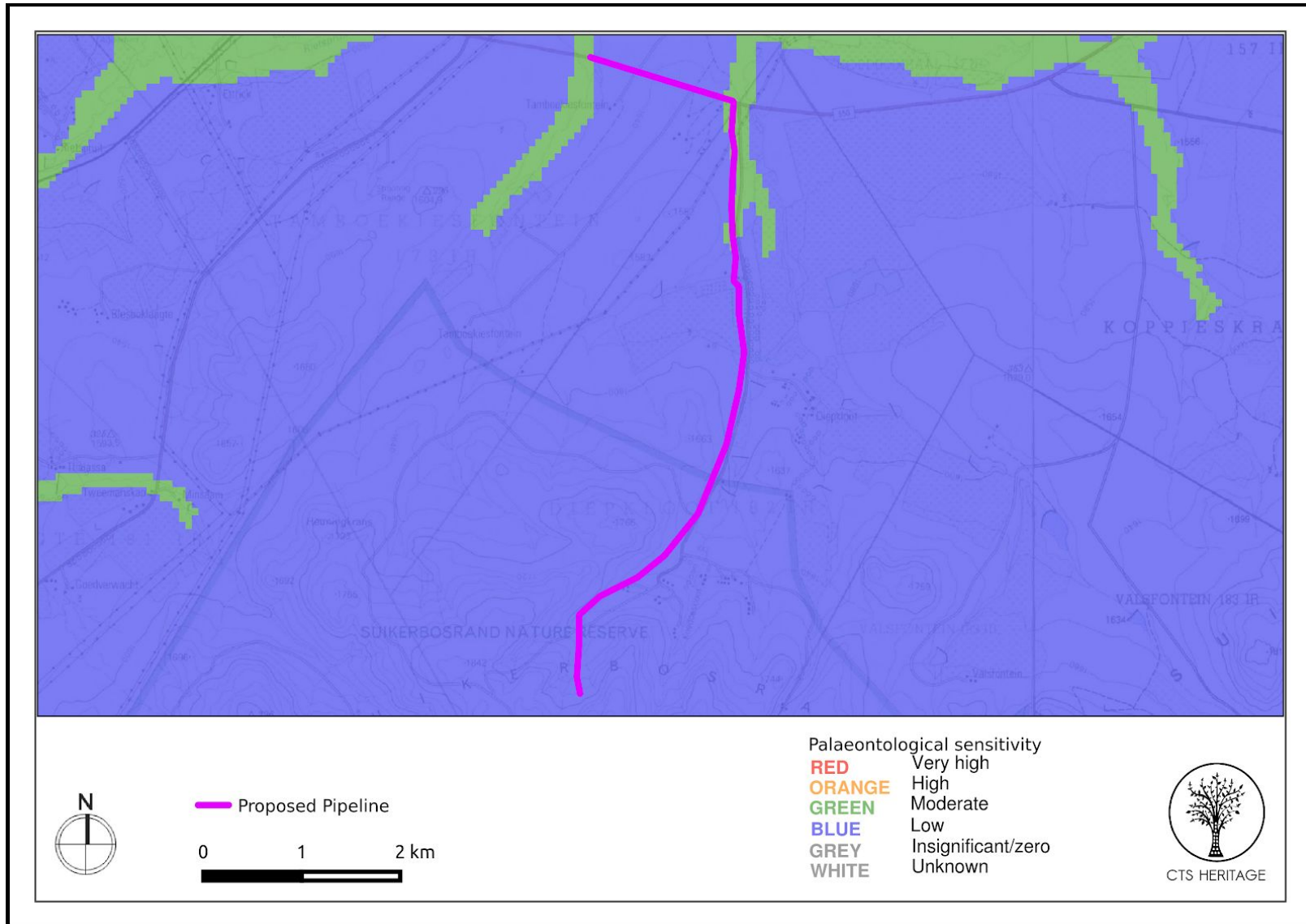


Figure 4. Palaeosensitivity Map. Indicating low (blue) fossil sensitivity underlying the study area. Please See Appendix 3 for full guide to the legend.



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Figure 5. Google Street View indicating context of proposed development.



8. Heritage statement and character of the area

This application is for proposed restorative work to the Northern Water Pipeline within Suikerbosrand Nature Reserve in Gauteng. As this application is for restorative work only, it is anticipated that there will be no impact to any heritage resources during the course of the repair work.

The route along which the pipeline runs has been previously assessed in an HIA by Van der Walt [2007, SAHRIS NID 5520]. Van der Walt identified only two heritage resources of low significance. It is therefore unlikely that this proposed repair work will impact any unknown or significant heritage resources. Van der Walt [2007] notes that "Although the area is rich in cultural history, only two Late Iron Age sites were identified during the survey of the proposed alignment for the bulk water supply system. LNWP S Site 1 and Site 2 is located at least 15 meters from the road reserve that leaves enough space for the construction of the proposed water line and a low impact is foreseen on these sites. It is therefore recommended that the two sites are demarcated during construction of the bulk water system to ensure that no impact occurs on the sites."

The proposed repair work is located within the Klipriviersberg Group Basalts and is of low palaeontological sensitivity according to the SAHRIS Palaeosensitivity Map. It is unlikely that this proposed repair work will impact on significant palaeontological heritage.

It is therefore recommended that, as the area proposed to be impacted by the repair work has already been surveyed as part of Van der Walt's HIA [2007], no additional heritage studies are required. However, it is recommended that, as per Van der Walt [2007], that the two sites, LNWP S Site 1 and Site 2, are demarcated during repair work to ensure that no impact occurs to these sites.

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.



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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
29640	Zwartkops 356 JR	Zwartkops 356 JR	Archaeological	
87200	VLA001	Vlakplaats 001	Burial Grounds & Graves	Grade IIIa
127537	LNWP - S Site 1	Link Northern Waterline Project - Suikerbosrand Site 1	Stone walling	Grade IIIc
127538	PREPS	Palm Ridge East Primary School	Building	
127539	LNWP - S Site 2	Link Northern Waterline Project - Suikerbosrand Site 2	Stone walling	Grade IIIc
127540	FT 1	Farm Tamboekiesfontein 1	Burial Grounds & Graves	Grade IIIa
127541	FT 2	Farm Tamboekiesfontein 2	Burial Grounds & Graves	Grade IIIa
127542	FT 3	Farm Tamboekiesfontein 3	Building	Grade II



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APPENDIX 2

Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
4891	AIA	Johnny Van Schalkwyk	01/10/2007	Heritage Survey of a Portion of the Farm Tamboekiesfontein 173 IR, Heidelberg Magisterial District, Gauteng Province
4940	AIA	Johnny Van Schalkwyk	07/04/2003	Heritage Sites: Proposed Vosloorus Cultural Village
5520	AIA	Jaco van der Walt	05/12/2007	Archaeological Impact Assessment: Link Northern Waterline Project at the Suikerbosrand Nature Reserve
6784	AIA	Francois P Coetzee	01/09/2008	Cultural Heritage Survey of the Proposed Development at Floracadia North and Floracadia South, Heidelberg, Gauteng
7607	AIA	Jaco van der Walt	06/08/2008	Archaeological Impact Assessment for the Proposed Palm Ridge East Primary School, Palm Ridge Extension 6, Gauteng Province
49825	HIA	Anton Pelser, Jaco van der Walt	01/11/2010	A Report on A Heritage Impact Assessment (HIA) for the proposed Sedaven Development of Portions 8 & 25 of the Farm Boschoek 385 IR, Heidelberg, Gauteng

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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.



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 PALAEOONTOLOGICAL 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:



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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.**

Cedar Tower Services (Pty) Ltd

34 Harries Street, Plumstead, Cape Town, 7800

Tel: (021) 0130131 **Email:** info@cedartower.co.za **Web:** www.cedartower.co.za