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HERITAGE SCREENER

CTS Reference Number:	CTS23_071
SAHRIS Ref	
Client:	Savannah
Date:	June 2023
Title:	Proposed development of the Quantum 1 Solar Energy Facility (SEF) near Krugersdorp, Gauteng Province

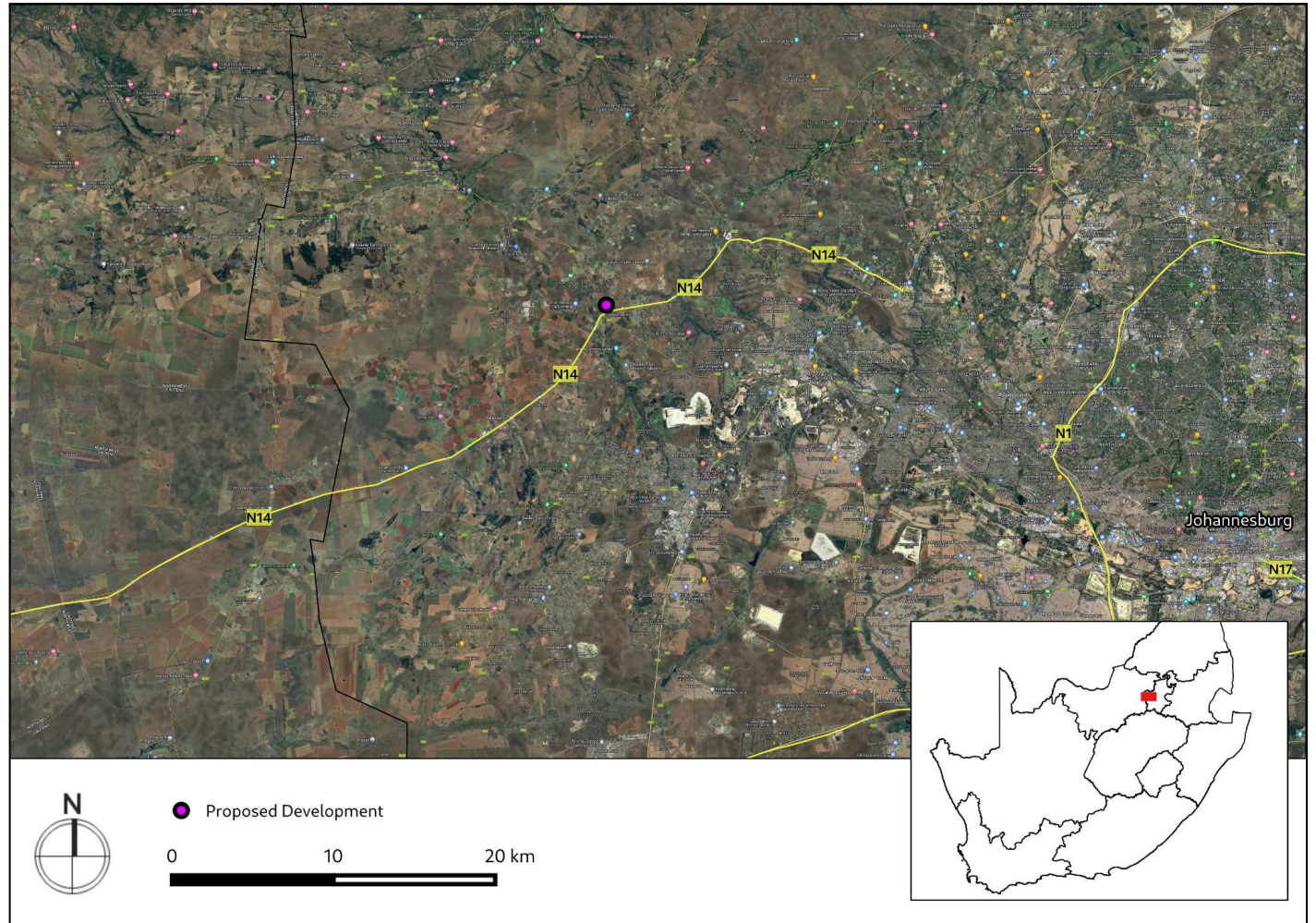


Figure 1a. Satellite map indicating the location of Quantum Solar PV Energy Facility in the Gauteng Province

Recommendation:	RECOMMENDATION The area proposed for development is located in an area of high archaeological and palaeontological sensitivity. It is recommended that a full HIA be undertaken to assess the impacts likely to result from the proposed development of the PV facility and associated grid connections.
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1. Proposed Development Summary

South Africa Mainstream Renewable Power Developments (Pty) Ltd is proposing the construction and operation of a solar photovoltaic (PV) facility and associated infrastructure on Portion 285 (a portion of portion 19) of the Farm Vlakplaats 160, located approximately 7.2km west of Krugersdorp, within the Mogale City Local Municipality in the West Rand District Municipality in the Gauteng Province. The facility will have a contracted capacity of up to 10MW and will be known as Quantum 1 Solar Energy Facility.

A preferred development area with an extent of ~94.1479ha has been identified by South Africa Mainstream Renewable Power Developments (Pty) Ltd as technically suitable for the development of the Quantum 1 Solar Energy Facility. The facility will comprise the following infrastructure:

- » Solar PV array comprising solar modules.
- » Mounting System Technology
- » Inverters and transformers.
- » Low voltage cabling between the PV modules to the inverters.
- » Overhead power lines
- » Onsite substation, switching substation and laydown areas.
- » Battery Energy Storage System (BESS) and associated infrastructure.
- » Internal access roads.
- » Fence around the project development areas.

A summary of the details and dimensions of the planned infrastructure associated with the project is provided in Table 1.

Table 1: Details of typical infrastructure required for the 10MW Quantum 1 SEF.

Component	Description / Dimensions
District Municipality	West Rand District Municipality
Local Municipality	Mogale City Local Municipality
Ward Number (s)	Ward 30
Nearest town(s)	Krugersdorp (7.2km east)
Farm name(s) and number(s) of properties affected by the PV Facility, incl SG 21 Digit Code (s)	Portion 265 (a portion of portion 19) of the Farm Vlakplaats 160 (T01Q0000000016000265)
Current zoning	Agriculture
Site Coordinates (centre of development area)	26° 4'8.17"S, 27°38'55.89"E
Total extent of the Affected Properties, also referred to as the project site ¹	~94.1479ha

¹ The project site is that identified area within which the development area and development footprint are located. The project site is ~93ha in extent and only consist of one affected property.



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Total extent of the Development area ²	~94.1479ha
Total extent of the Development footprint ³	To be confirmed following specialist input during the scoping phase
Contracted capacity of the PV facility	10MW
PV panels	Height: up to 5m from ground level (installed)
Power line capacity	11kV
Power line servitude width	Up to 18m
Grid connection	» To be evacuated from the onsite substation via 11kV Monopole or lattice structure pylons to the Eskom Tarlton 132/44/11kV substation located on the same land parcel as the proposed PV facility. This will form part of a separate EA process.
On-site Facility Substation, and O&M buildings	» Located within the development area. » Approximately 1.5ha in extent.
Battery Energy Storage System (BESS)	» The BESS area will form part of the 1.5ha allocated for other infrastructure.
Access roads and internal roads	» Existing roads will be used as far as possible. There are existing gravel roads that can be utilized for site access (width of up to 6m). Upgrading of existing roads or new roads may be required.

The Quantum 1 SEF is proposed in response to the identified objectives of the national and provincial government and local and district municipalities to develop renewable energy facilities for power generation purposes. It is the developer's intention to submit a bid in terms of a regulated power purchase procurement process (e.g., REIPPPP) with the aim of evacuating the generated power into the national grid or obtaining a commercial PPA (Power Purchase Agreement). This will aid in the diversification and stabilisation of the country's electricity supply, in line with the objectives of the Integrated Resource Plan (IRP) with the Quantum 1 SEF set to inject up to 10MW (peak AC power) into the national grid.

From a regional perspective, the area within the West Rand District Municipality identified for the project is considered favourable for the development of a commercial PV facility due to the low environmental sensitivity of the identified site, excellent solar resource, and availability of land on which the development can take place. There is also potential for evacuating the power to the national grid via a direct grid connection at the Eskom Tarlton 132/44/11kV substation which is adjacent to the proposed site. The site is also in proximity to large electricity users which opens opportunities for commercial PPAs (Behind the meter connection Or Wheeling to a 3rd party off-taker).

2. Application References

Name of relevant heritage authority(s)	SAHRA
Name of decision making authority(s)	

² The development area is that identified area where the 10MW PV facility is planned to be located. This area has been selected as a practicable option for the facility, considering technical preference and constraints. The development area is ~94.1479ha in extent.

³ The development footprint is the defined area (located within the development area) where the PV panel array and other associated infrastructure for the Quantum 1 Solar Energy Facility is planned to be constructed. This is the actual footprint of the facility, and the area which would be disturbed.



3. Property Information

Latitude / Longitude	26° 4'8.17"S, 27°38'55.89"E
Erf number / Farm number	Portion 285 (a portion of portion 19) of the Farm Vlakplaats 160
Local Municipality	Mogale City Local Municipality
District Municipality	West Rand District Municipality
Province	Gauteng
Current Use	Agriculture
Current Zoning	Agriculture

4. Nature of the Proposed Development

Total Surface Area	~94.1479ha
Depth of excavation (m)	TBA
Height of development (m)	TBA

5. Category of Development

x	Triggers: Section 38(8) of the National Heritage Resources Act
	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-
x	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



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	4. Rezoning of a site exceeding 10 000m ²
	5. Other (state):

6. Additional Infrastructure Required for this Development

TBA

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

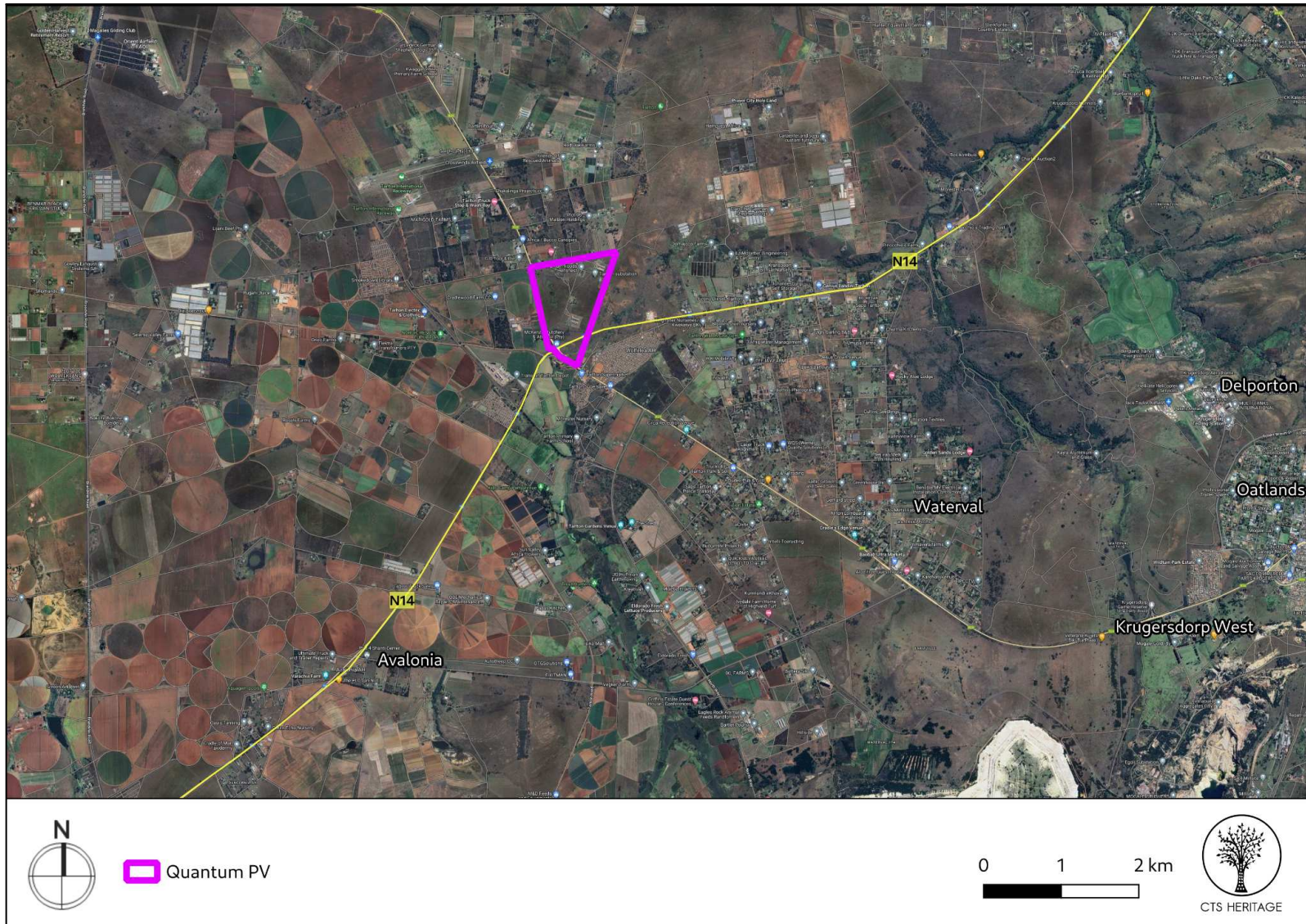


Figure 1b Overview Map. Satellite image (2023) indicating the proposed development area.

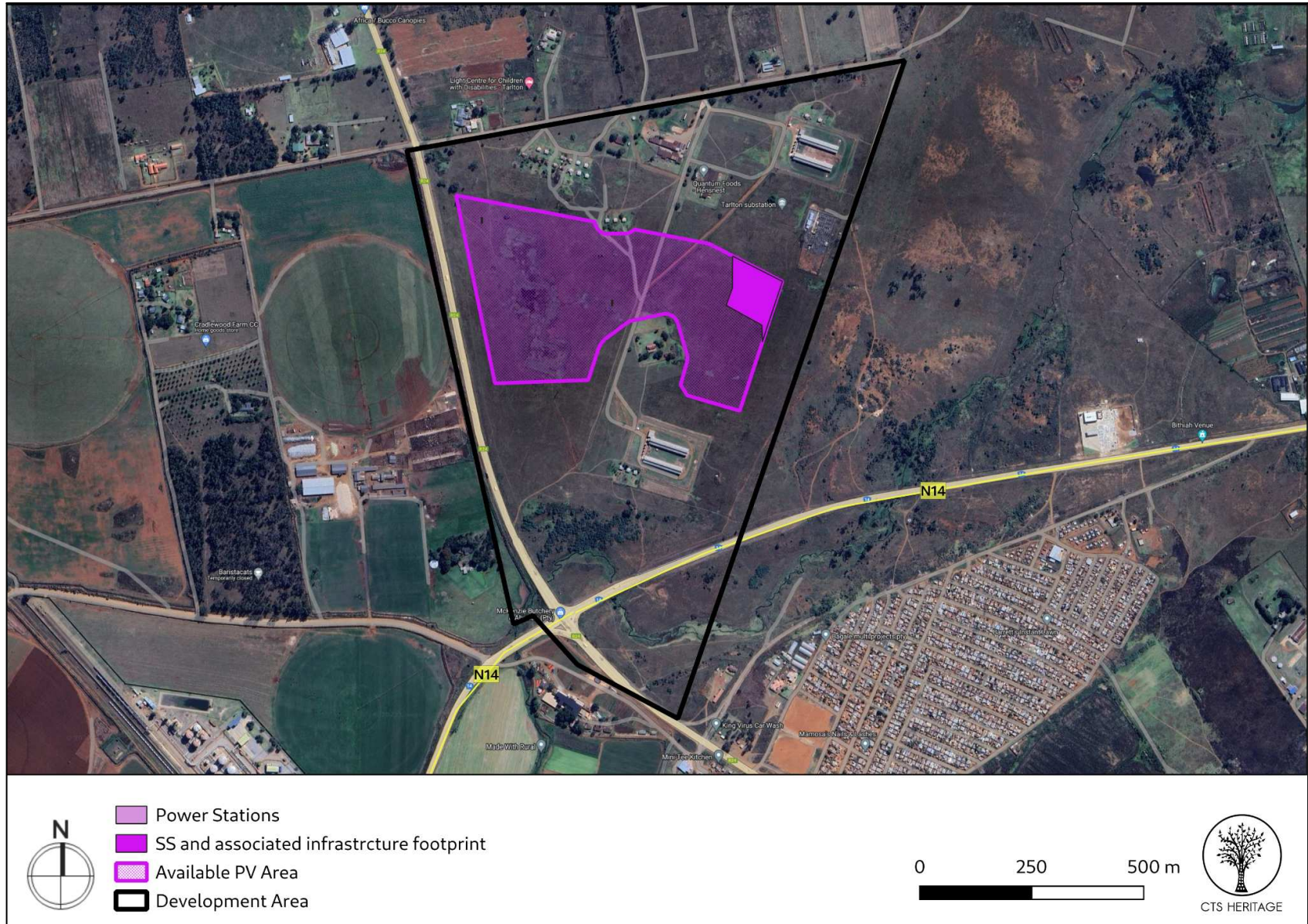


Figure 1c Overview Map. Satellite image (2023) indicating the proposed development area, close up.

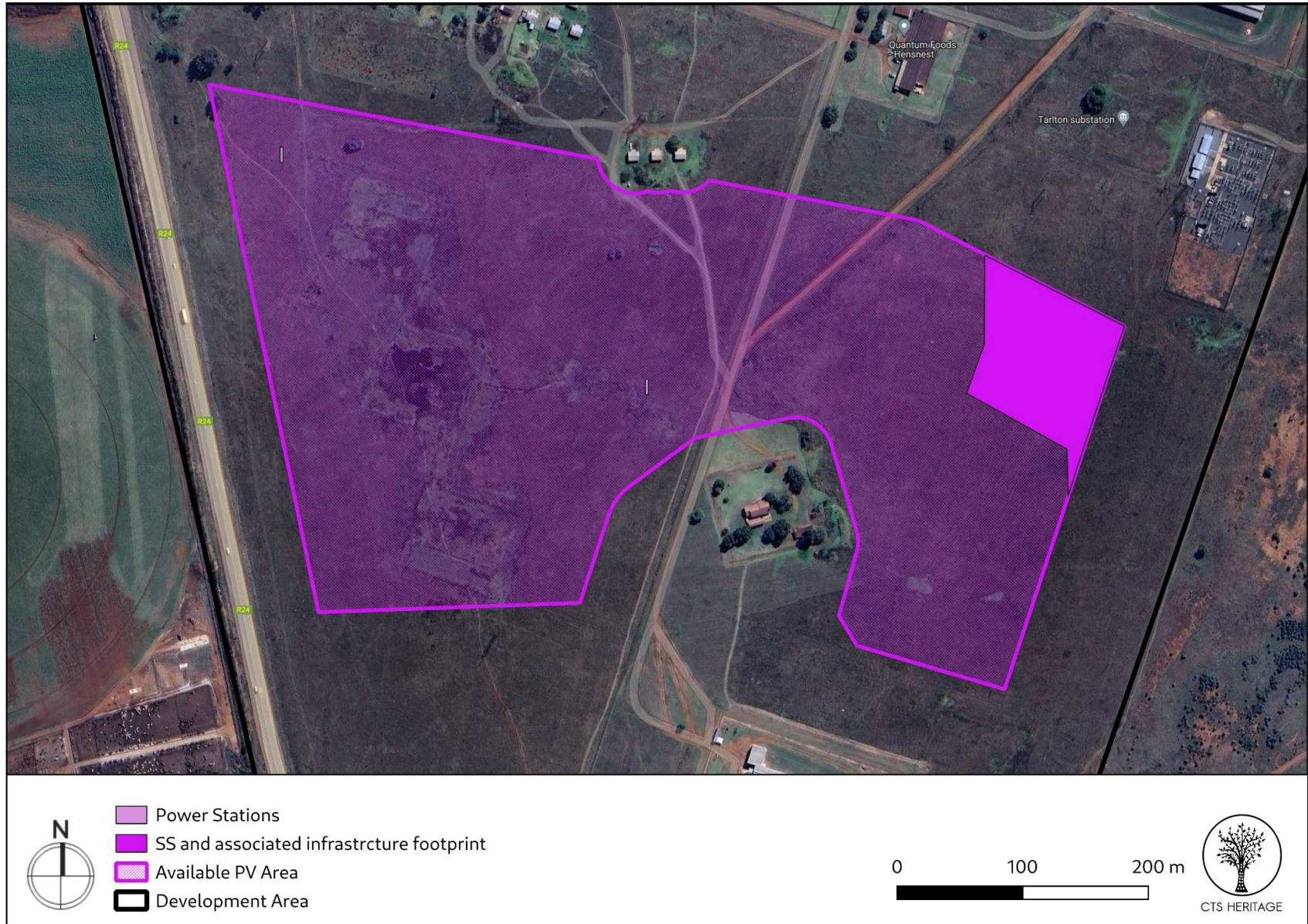


Figure 1d Overview Map. Satellite image (2023) indicating the proposed development area, close up.



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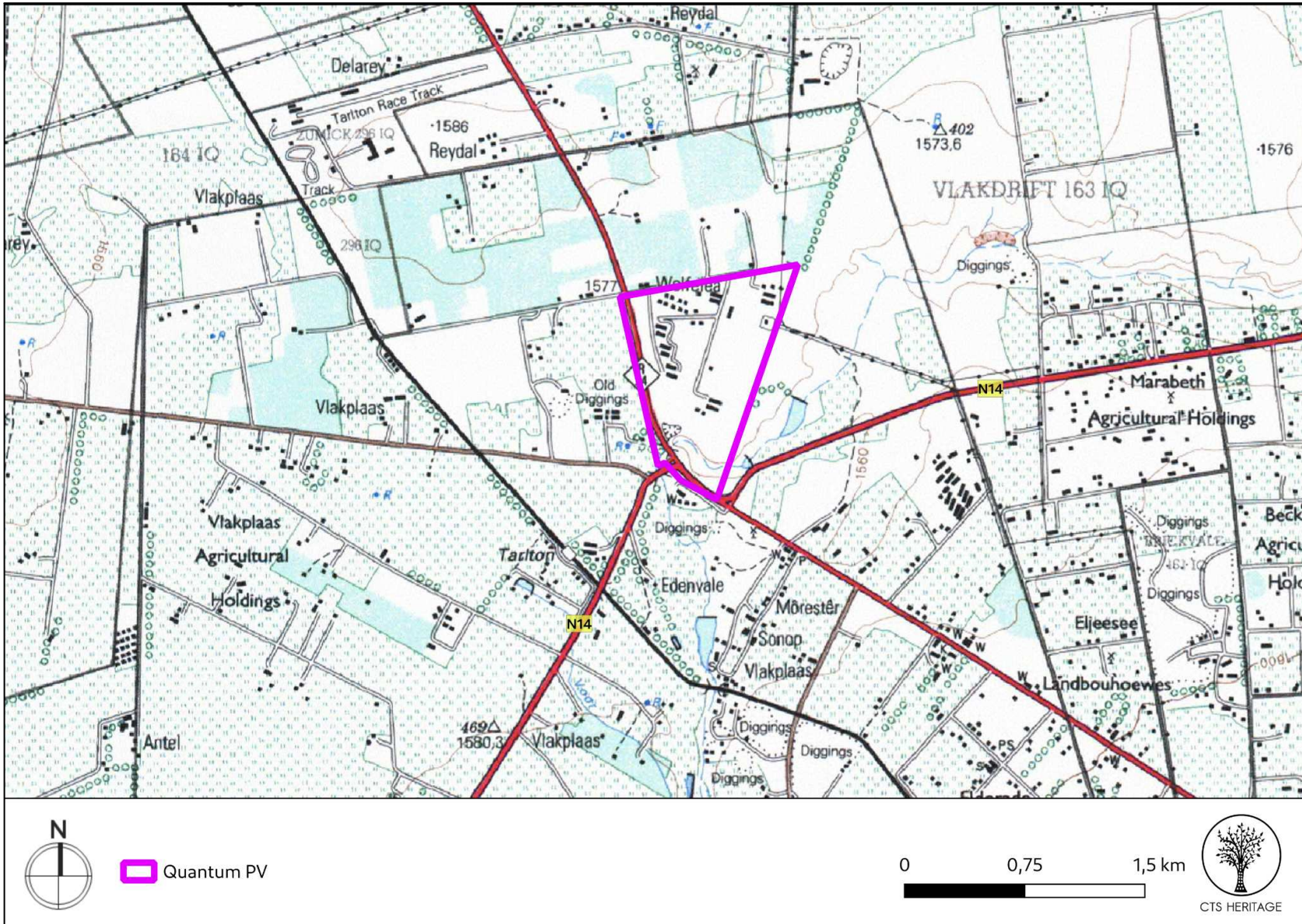


Figure 1d Overview Map. Extract from the 1:50 000 Topo map for the development area.

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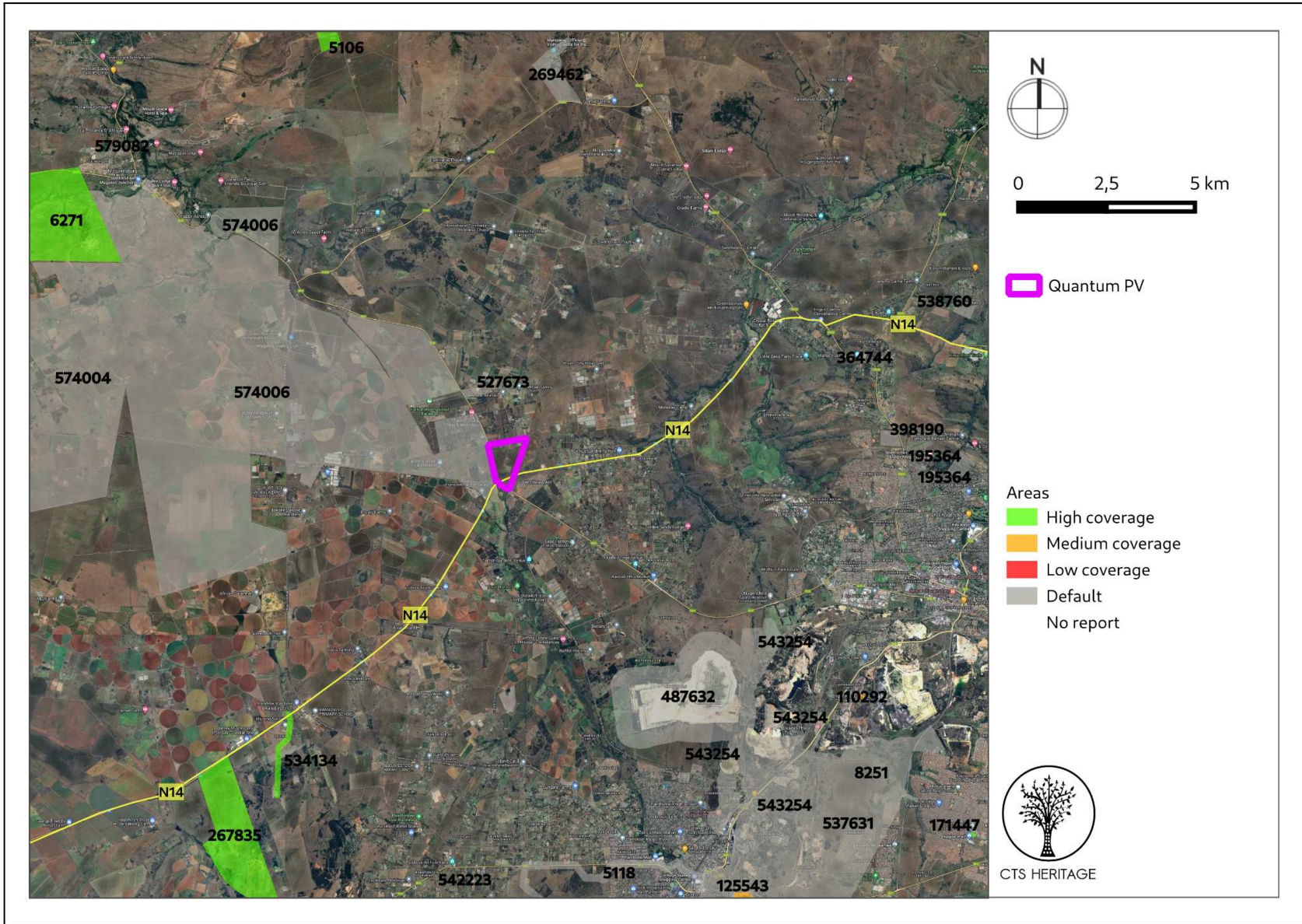


Figure 2. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 15km, with SAHRIS NIDS indicated. Please see Appendix 2 for a full reference list.

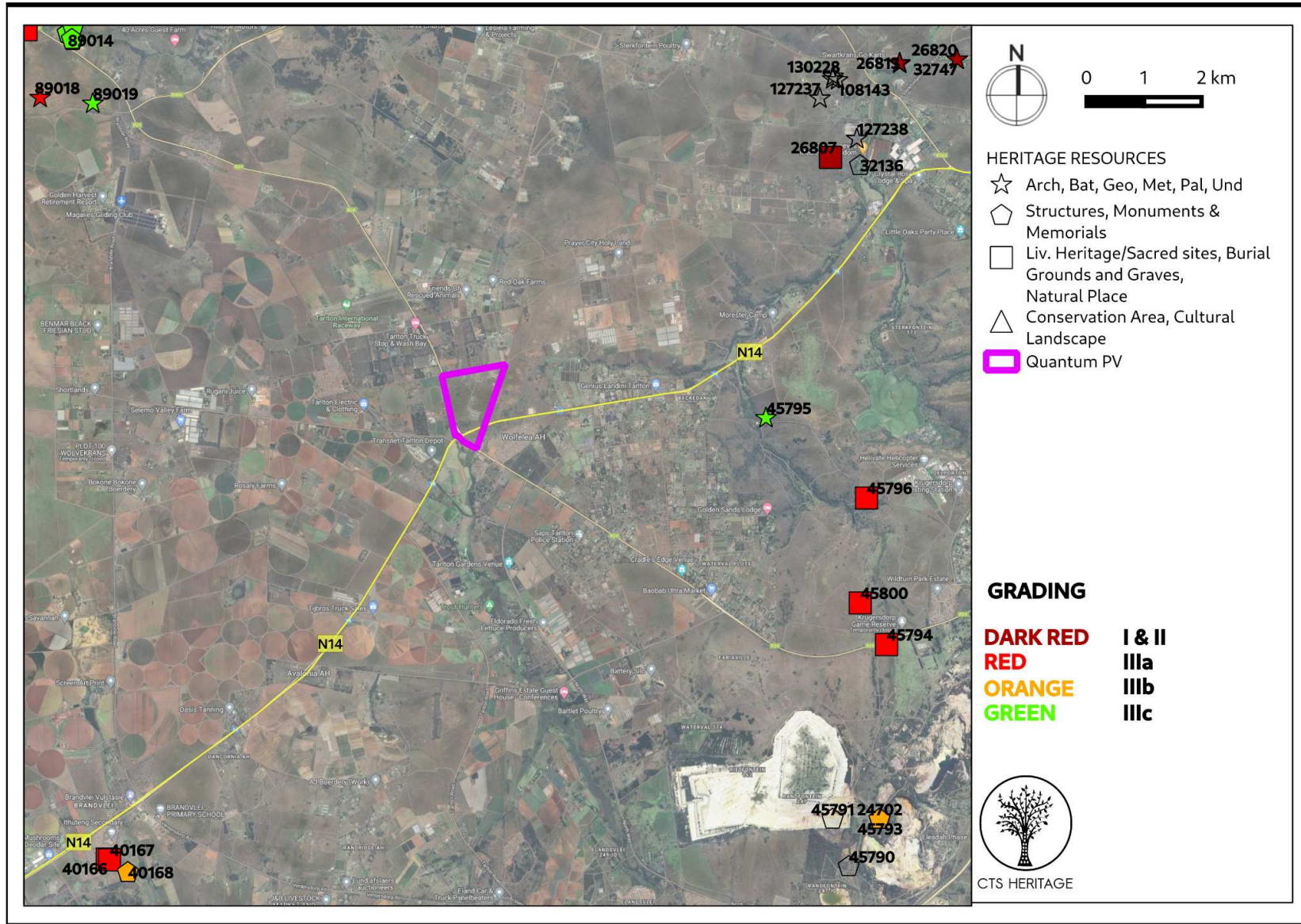


Figure 3. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated within 10km. Please See Appendix 4 for full description of heritage resource types.

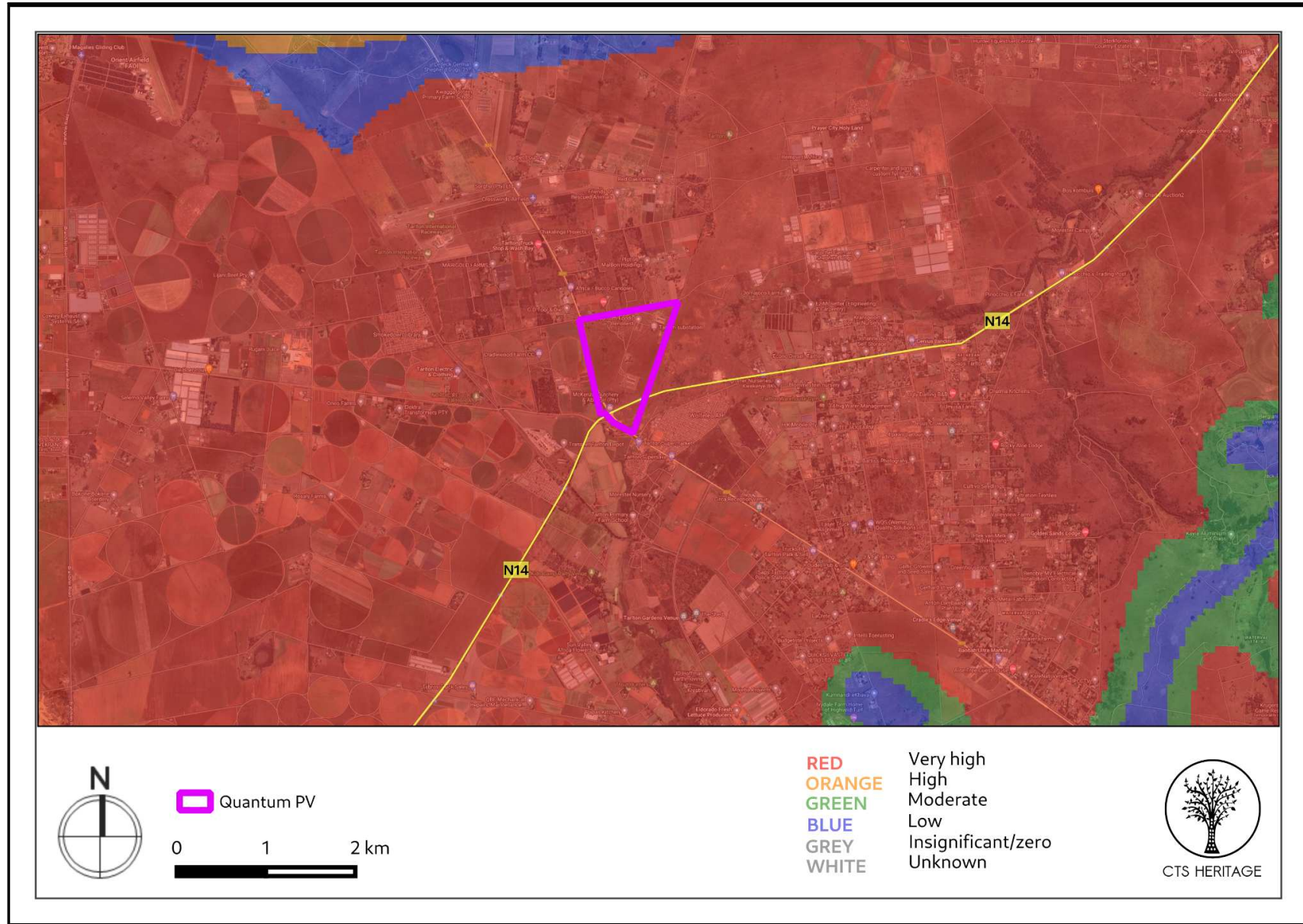
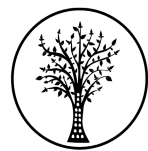


Figure 4.1. Palaeosensitivity Map. Indicating very high fossil sensitivity underlying the study area. Please See Appendix 3 for a full guide to the legend.



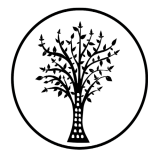
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Figure 4.2. Geology Map. Extract from the CGS Map 2626 for West Rand indicating that the development area is underlain by Vmd: Malmani Subgroup sediments of the Chuniespoort Group

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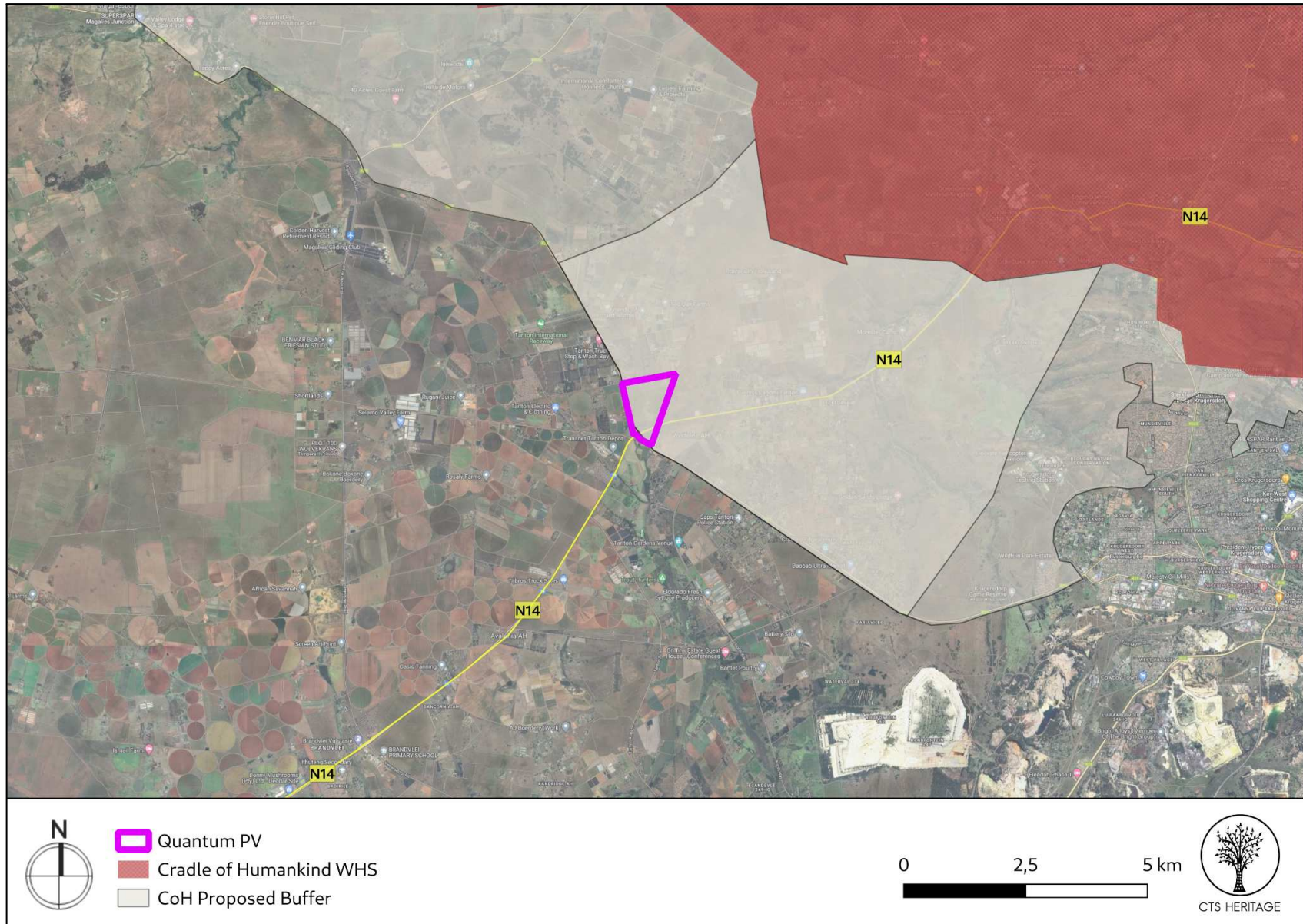
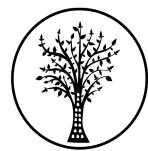


Figure 5. Cradle of Humankind WHS Map. Relative to development area

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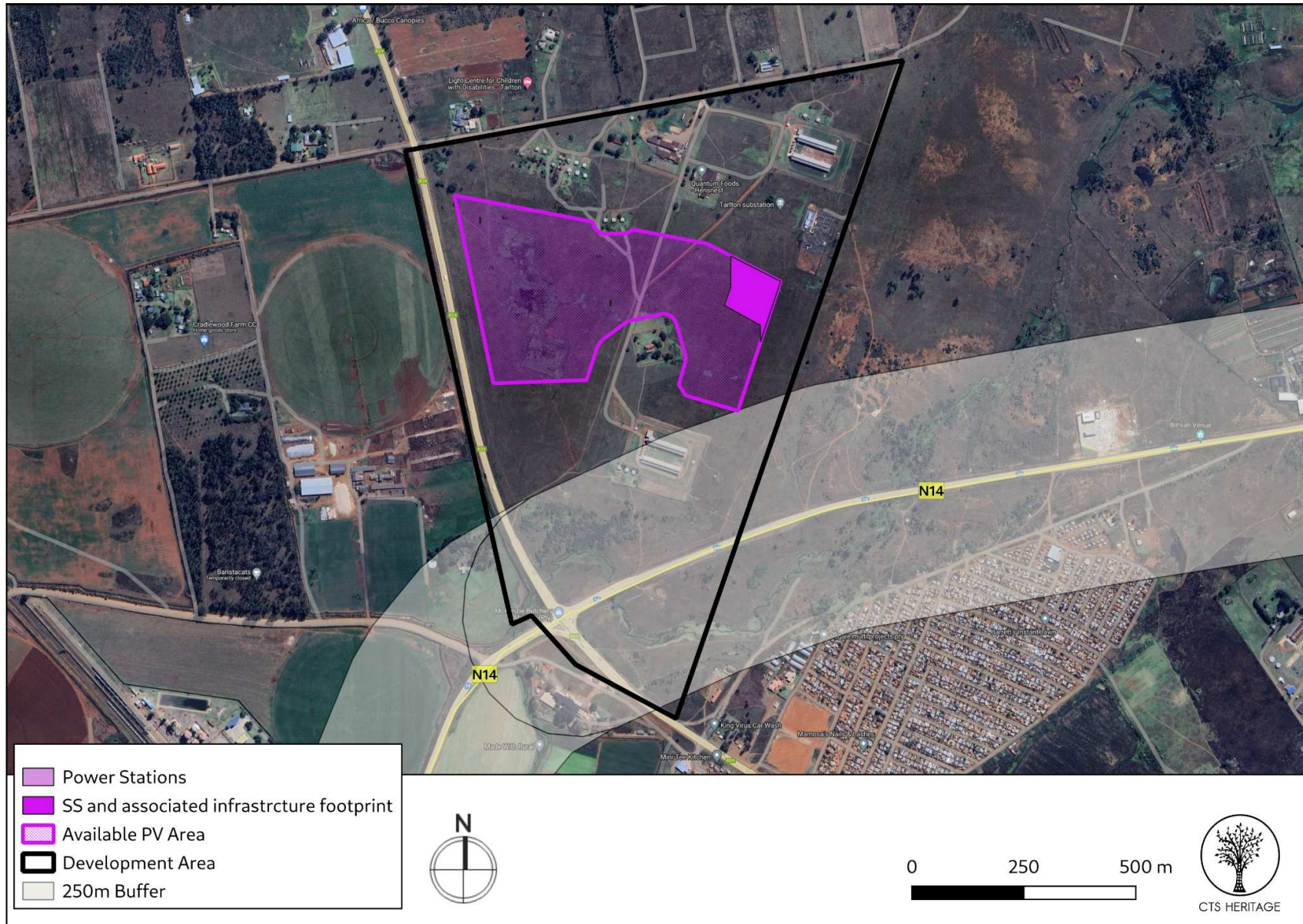


Figure 6. Recommended Buffer. Relative to the historic N14 access route

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8. Heritage Assessment

Background

The study area borders Magaliesburg to the south, while Krugersdorp is located 15 km to the east and Carletonville 32 km to the southwest. Krugersdorp was established on the farm Paardekraal in 1887 after the discovery of gold in the area. The discovery of gold and the mining boom had an impact on the establishment of all the towns in the area and on the evolution and development of South Africa more generally. Krugersdorp also played a significant role in the Transvaal War of Independence and the Second Boer War, during which the British established a concentration camp on the then outskirts of the city. The exact location of the site of the concentration camp is unknown however it is expected that the camp was located at the site of the present Coronation Park, located far from the area proposed for development here.

The area proposed for development is located approximately 32km northeast of Carletonville within the Merafong Municipality. Carletonville was developed by various mining companies from 1937 onwards, but was not officially incorporated until 1959, and was subsequently recognised as a provincial town in 1967. Surrounding Carletonville are a number of privately owned gold-mining township villages and contractor labour quarters established by the mining companies on land owned by the mines. The area surrounding Carletonville is dominated by a cultural landscape that is shaped and defined by the historic and on-going mining activities associated with the Witwatersrand. A detailed archaeological background of the area is provided by Du Pisanie and Nel (2012, SAHRIS NID 104305) and is therefore not repeated here. It is sufficient to note that no significant Early, Middle or Later Stone Age sites are known from this broader area, however sites representing the Iron Age occupation of the region are present in the broader context.

Archaeology and Cultural Heritage

Tobais (2021) notes that “the general region is significant from a heritage perspective. Heritage sites are likely to include cemeteries/graves, Stone Age Sites, Iron Age and historical sites. Since gold mining can be dated to at least 1874 on the Farm Blaauwbank that is located directly north of the study area, it can be assumed that similar mining activities took place in the general area during the same time. Remnants of the South African War of 1899 – 1902 are also likely to be encountered within the study area.”

Birkholtz and Groenewald (2016, SAHRIS NID 369805) describe the broader areas as “generally undulating with a number of extensive pans located within this area... While the overall study area is mostly utilised for agricultural activities, the proposed development bulk sample area that was assessed in the field is characterised by agricultural fields (maize), a large number of small livestock camps associated with stud farming (cattle) as well as Eskom power lines.” The N14 is an historic scenic route that runs between Ventersdorp and Pretoria and is likely based on the original wagon route used for this journey. This route is located immediately adjacent to the proposed development area. In general, for the development of PV infrastructure and its associated grid connection infrastructure, it is preferred for such development to be clustered with existing development, such as mining or residential development, in order to reduce the perception of urban and infrastructure sprawl across an otherwise agricultural landscape and a no-development buffer of 500m for PV infrastructure is recommended along significant access routes such as the N14. However, in this instance, due to the already transformed nature of the broader area, a 250m buffer is appropriate (Figure 6).

Birkholtz and Groenewald (2016) go on to note that examples of published excavated archaeological sites from the general surroundings of the study area include the Later Stone Age and Iron Age sites located along the Magaliesberg Mountains and sites of international palaeoanthropological significance such as Sterkfontein and Kromdraai, both located within the Cradle of Humankind World Heritage Site. The area proposed for the PV development is located within the buffer area of the COHWHS (Figure 5). The COHWHS site is managed by a Management Authority on behalf of the State Party represented by the South African Minister of Environmental Affairs. The Management Authority is responsible for day to day management and falls under the MEC for Economic Development in Gauteng Province. To achieve long term sustainability and effectiveness, a Master Plan was developed in 2000 and has since then guided all conservation, development and research work at the site. According to the COHWHS Management Plan (2014-2017), the primary aim of the Management Authority is to protect and preserve the site, promote further scientific research, encourage community participation and stimulate tourism development that will benefit local communities and ultimately contribute to Local Economic Development (LED). Specific engagement with the MA for the COHWHS should take place regarding development within the identified WHS buffer.

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Palaeontology

According to the SAHRIS Palaeosensitivity Map, the Proposed Development Areas are located within areas that have variable palaeontological sensitivity but all areas have sediments that have high and very high palaeontological sensitivity. According to the extract from the Council of GeoScience Map for West Rand 2626, the very highly sensitive formations that may be impacted include the Malmani Subgroup. The Malmani Subgroup is known to preserve a range of shallow marine to intertidal stromatolites (domes, columns *etc*), organic-walled microfossils and includes FOSSILIFEROUS LATE CAENOZOIC CAVE BRECCIAS such as in the Cradle of Humankind.

RECOMMENDATION

The area proposed for development is located in an area of high archaeological and palaeontological sensitivity. It is recommended that a full HIA be undertaken to assess the impacts likely to result from the proposed development of the PV facility and associated grid connections.

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9. Impact Assessment

Impact

- Impact to archaeological resources
- Impact to palaeontological resources
- Impact to Cultural Landscape
- Cumulative Impact

Desktop Sensitivity Analysis of the Site

- Impact to significant archaeological resources such as Stone Age artefact scatters, burial grounds and graves, Iron age sites and historical artefacts through destruction during the development phase is likely.
- Impacts to palaeontological resources are likely.
- Due to the nature of the development and its context, cumulative impact and negative impact to the cultural landscape is likely

Issue	Nature of Impact	Extent of Impact	No-Go Areas
Impact to significant heritage resources through destruction during the development phase.	Destruction of significant heritage resources	Local scale with broader impacts to scientific knowledge	None known at present

Gaps in knowledge & recommendations for further study

- It is likely that the proposed development will impact significant cultural landscape, archaeological and palaeontological heritage and as such, it is recommended that a heritage impact assessment be completed that assesses these impacts as per section 38(3) of the NHRA.

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APPENDIX 1: List of heritage resources in proximity to the development area

Site ID	Site no	Full Site Name	Site Type	Grading
26807	9/2/233/0032-1	Bolts Farm, Sterkfontein 173 IQ (portion 32), Gauteng	Archaeological, Palaeontological, Place	Grade I
26820	9/2/233/0004	Sterkfontein Caves, Zwartkrans, Krugersdorp District	Archaeological	Grade I
26813	9/2/233/0012	Swartkrans Palaeontological Site, Zwartkrans 172, Krugersdorp District	Archaeological	Grade I
32747	Jacovec Cavern	Jacovec Cavern, Sterkfontein Caves, Gauteng	Archaeological, Palaeontological	Grade IIIb
24702	BKS1310/2627BA/BE016	No. 8 Shaft Randfontein Estates Gold Mine	Structures	Grade IIIb
45790	DWE001	DWE_BKS1310/001	Building	Ungraded
45791	DWE002	DWE_BKS1310/002	Building	Ungraded
45793	DWE004	DWE_BKS1310/004	Structures	Ungraded
45794	DWE005	DWE_BKS1310/005	Burial Grounds & Graves	Grade IIIa
45795	DWE006	DWE_BKS1310/006	Archaeological	Grade IIIc
45796	DWE007	DWE_BKS1310/007	Burial Grounds & Graves	Grade IIIa
45800	DWE011	DWE_BKS1310/011	Burial Grounds & Graves	Grade IIIa
32136	GSF-001	Goldsmith's Farm	Structures	
89014	MES010	Maloney's Eye 169 IQ & Steenkoppie 153 IQ/ 010	Structures	Grade IIIc

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89016	MES012	Maloney's Eye 169 IQ & Steenkoppie 153 IQ/ 012	Structures	Grade IIIc
89017	MES013	Maloney's Eye 169 IQ & Steenkoppie 153 IQ/ 013	Structures	Grade IIIc
89018	MES014	Maloney's Eye 169 IQ & Steenkoppie 153 IQ/ 014	Battlefield	Grade IIIa
89019	MES015	Maloney's Eye 169 IQ & Steenkoppie 153 IQ/ 015	Archaeological	Grade IIIc
40166	BRAND01	Brandvlei 01	Burial Grounds & Graves	Grade IIIa
40167	BRAND02	Brandvlei 02	Burial Grounds & Graves	Grade IIIa
40168	BRAND03	Brandvlei 03	Building	Grade IIIb
104986	U.W 101 - 104	Rising Star Cave	Palaeontological, Archaeological	
108143	Rising Star Cave	Rising Star Cave	Palaeontological	
128300	SWT	Swartkrans Cave	Archaeological	
130228	UW105	UW 105 Rising Star	Archaeological	
127238	9/2/233/0032-2	Bolt's Farm, Greensleeves portion, Sterkfontein 173 IQ (portion 12)	Palaeontological	
127237	9/2/233/0032-3	Bolts Farm, Sterkfontein 173 IQ (portion 38), Gauteng	Palaeontological	

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APPENDIX 2: Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
5106	AIA Phase 1	Johnny Van Schalkwyk	01/11/2003	Heritage Impact Assessment for the Waterval West 510 JQ Development, Krugersdorp District, Gauteng Province
5114	AIA Phase 1	Anton van Vollenhoven, Anton Pelser	01/09/2007	A Report on a Cultural Heritage Impact Assessment on Erf 85, Chamdor, Krugersdorp for the William Tell Particle Boards and Medium Density Manufacturing Plant
5118	AIA Phase 1	Johnny Van Schalkwyk	01/02/2008	Heritage Survey Report for the Development of Water Pipelines for the Droogeheuvel and Middelvlei Townships, Randfontein, Gauteng Province
6271	AIA Phase 1	Wouter Fourie, M Ramsden	01/08/2002	Blaauwbank Historic Gold Mine, Magaliesberg: Cultural Heritage Scoping
6340	AIA Phase 1	Wouter Fourie, Jaco van der Walt	08/12/2005	Portion of the Proposed Pipeline from Brandvlei to Krugersdorp on the Farm Brandvlei 261 IQ, District Mogale City, Gauteng Province
6402	AIA Phase 1	Wouter Fourie	03/09/2007	Archaeological Impact Assessment: Proposed Township - Chancliff Ridge Extension 34, Mogale City
7795	AIA Phase 1	Johnny Van Schalkwyk, Frank Teichert	04/06/2007	Heritage Impact Assessment for the Planned Rietvallei 180 IQ Development, Krugersdorp Municipal District, Gauteng Province
8056	AIA Phase 1	Polke Birkholtz	23/06/2008	Heritage Scoping: Proposed Second Dwelling, Thorny Valley Estate 240 (Portion 240 a Portion of 264) of the Farm Honingklip 178 IQ, Mogale City, Gauteng Province
8251	AIA Phase 1	Johnny Van Schalkwyk	01/11/2007	Heritage Survey Report for the Proposed West Village Outfall Sewer, Mogale City Local Municipality, Gauteng
110292	AIA Phase 1		13/02/2013	Ntshona Heritage Reports
195364	HIA Phase 1	Wouter Fourie	26/01/2015	THE RAND EN DAL EXT13 PROPOSED DEVELOPMENT ON PORTION 29 OF THE FARM PAARDEPLAATS

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				177 IQ, KRUGERSDORP, MOGALE CITY DISTRICT, GAUTENG PROVINCE
195364	HIA Phase 1	Wouter Fourie	26/01/2015	THE RAND EN DAL EXT13 PROPOSED DEVELOPMENT ON PORTION 29 OF THE FARM PAARDEPLAATS 177 IQ, KRUGERSDORP, MOGALE CITY DISTRICT, GAUTENG PROVINCE
269462	Heritage Impact Assessment Specialist Reports	Dominic Stratford	20/11/2014	Basic Heritage Impact Assessment for the proposed upgrades to the Maropeng Interpretive Centre
364744	AIA Phase 1	Jaco van der Walt	17/05/2016	ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED PROTEA RIDGE DEVELOPMENT, GAUTENG PROVINCE
375227	AIA Phase 1	Jaco van der Walt	04/10/2016	ARCHAEOLOGICAL IMPACT ASSESSMENT For the Proteadal Mixed Use Township, Proteadal Extension 1, Portion 216 (a Portion of Portion 214) , Paardeplaats 177 IQ, Gauteng Province
375715	HIA Phase 2	Jaco van der Walt, Sidney Miller	04/10/2016	2nd Phase documentation report of the Farmyard On Portion 216 Of Paardekraal 177 IQ, Proteadal Extension 1. Mogale City/Krugersdorp, Gauteng Province.

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APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

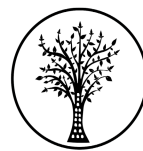
AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (KwaZulu-Natal)
DEFF	Department of Environment, Forest and Fisheries (National)
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental 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 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.

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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

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- 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.

APPENDIX 5 -Summary of Specialist Expertise

Jenna Lavin, an archaeologist with an MSc in Archaeology and Palaeoenvironments, and currently completing an MPhil in Conservation Management, heads up the heritage division of the organisation, and has a wealth of experience in the heritage management sector. Jenna's previous position as the Assistant Director for Policy, Research and Planning at Heritage Western Cape has provided her with an in-depth understanding of national and international heritage legislation. Her 8 years of experience at various heritage authorities in South Africa means that she has dealt extensively with permitting, policy formulation, compliance and heritage management at national and provincial level and has also been heavily involved in rolling out training on SAHRIS to the Provincial Heritage Resources Authorities and local authorities.

Jenna is a member of the Association of Professional Heritage Practitioners (APHP), and is also an active member of the International Committee on Monuments and Sites (ICOMOS) as well as the International Committee on Archaeological Heritage Management (ICAHM). In addition, Jenna has been a member of the Association of Southern African Professional Archaeologists (ASAPA) since 2009. Recently, Jenna has been responsible for conducting training in how to write Wikipedia articles for the Africa Centre's WikiAfrica project.

Since 2016, Jenna has drafted over 70 Heritage Impact Assessments throughout South Africa.

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