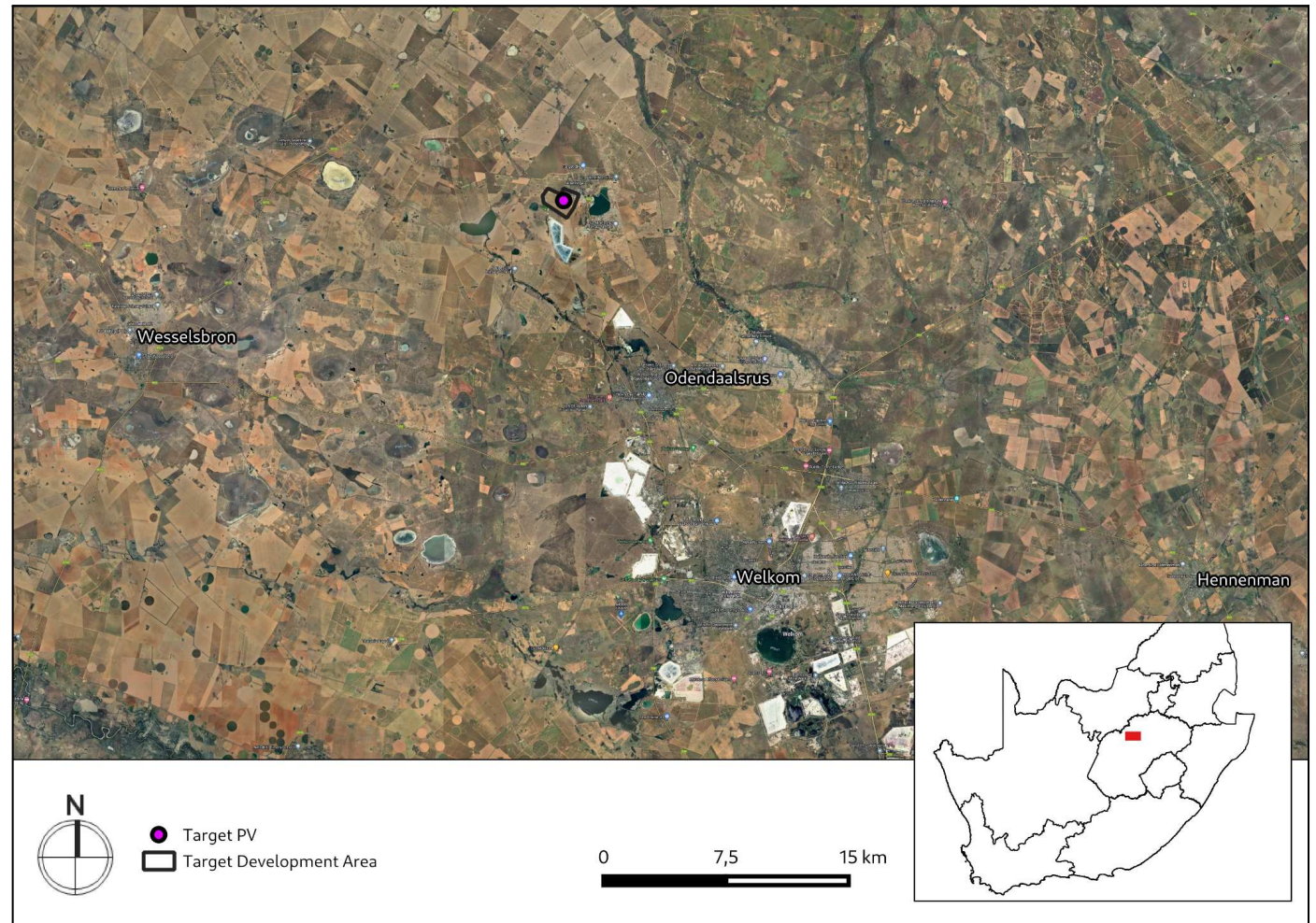




CTS HERITAGE

## HERITAGE SCREENER

CTS Reference Number:	<b>CTS22_101</b>
SAHRIS Reference:	
Client:	<b>Savannah Environmental (Pty) Ltd</b>
Date:	<b>May 2022</b>
Title:	<b>Proposed development of the Target PV Facility near Welkom</b>



**Figure 1a.** Satellite map indicating the location of the proposed development in the Free State

### RECOMMENDATION

As it is possible that significant heritage resources will be impacted by the proposed development, it is recommended that a Heritage Impact Assessment is completed that satisfies section 38(3) of the NHRA and assesses likely impacts to archaeological and palaeontological heritage.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

## 1. Proposed Development Summary

The development of a renewable energy facility, overhead powerline and associated infrastructure proposed by AVGOLD LTD. The project entails the development of an 30MW solar PV over 72 ha of land and will be known as Harmony Target Solar PV Facility, the facility will include a grid connection solution and other associated infrastructure.

The Solar PV facility is based approximately 500m south of the Harmony Target mining operations, located ~1km south of the town of Allanridge within the **Matjhabeng Local Municipality**, and within the Lejweleputswa District Municipality, Free State Province.

## 2. Application References

<b>Name of relevant heritage authority(s)</b>	SAHRA
<b>Name of decision making authority(s)</b>	DFFE

## 3. Property Information

<b>Latitude / Longitude</b>	27°45'58.46"S 26°38'2.42"E	
<b>Erf number / Farm number</b>	Kromdraai 386	0
<b>Local Municipality</b>	Matjhabeng	
<b>District Municipality</b>	Lejweleputswa	
<b>Province</b>	Free State	
<b>Current Use</b>	Mining	
<b>Current Zoning</b>	Agriculture	

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

#### 4. Nature of the Proposed Development

Total Area	72ha
Depth of excavation (m)	<2m
Height of development (m)	Max 20m pylons

#### 5. Category of Development

x	<b>Triggers: Section 38(8) of the National Heritage Resources Act</b>
	<b>Triggers: Section 38(1) of the National Heritage Resources Act</b>
x	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 <sup>2</sup> 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 <sup>2</sup>
	5. Other (state):

#### 6. Additional Infrastructure Required for this Development

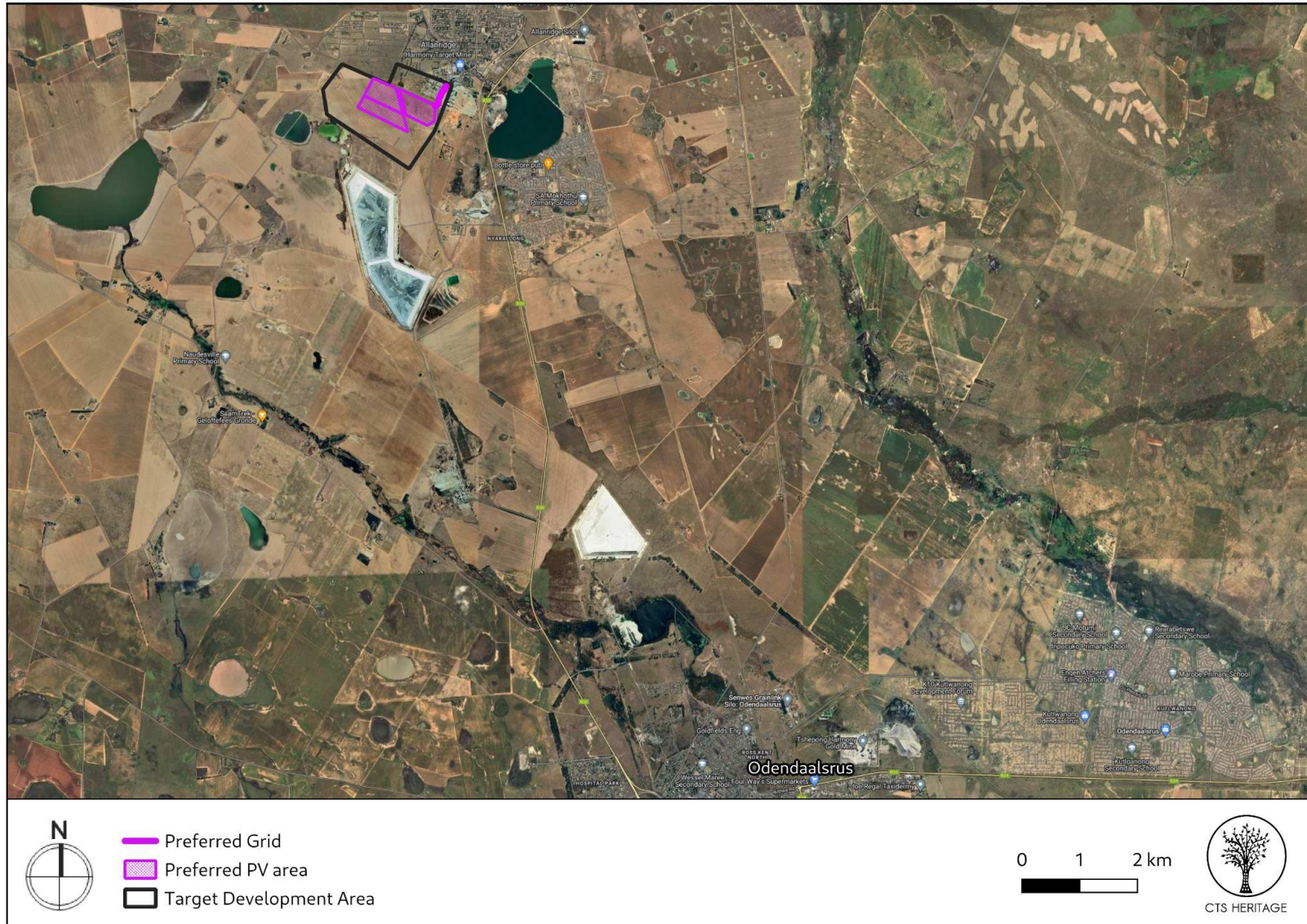
NA

CTS Heritage

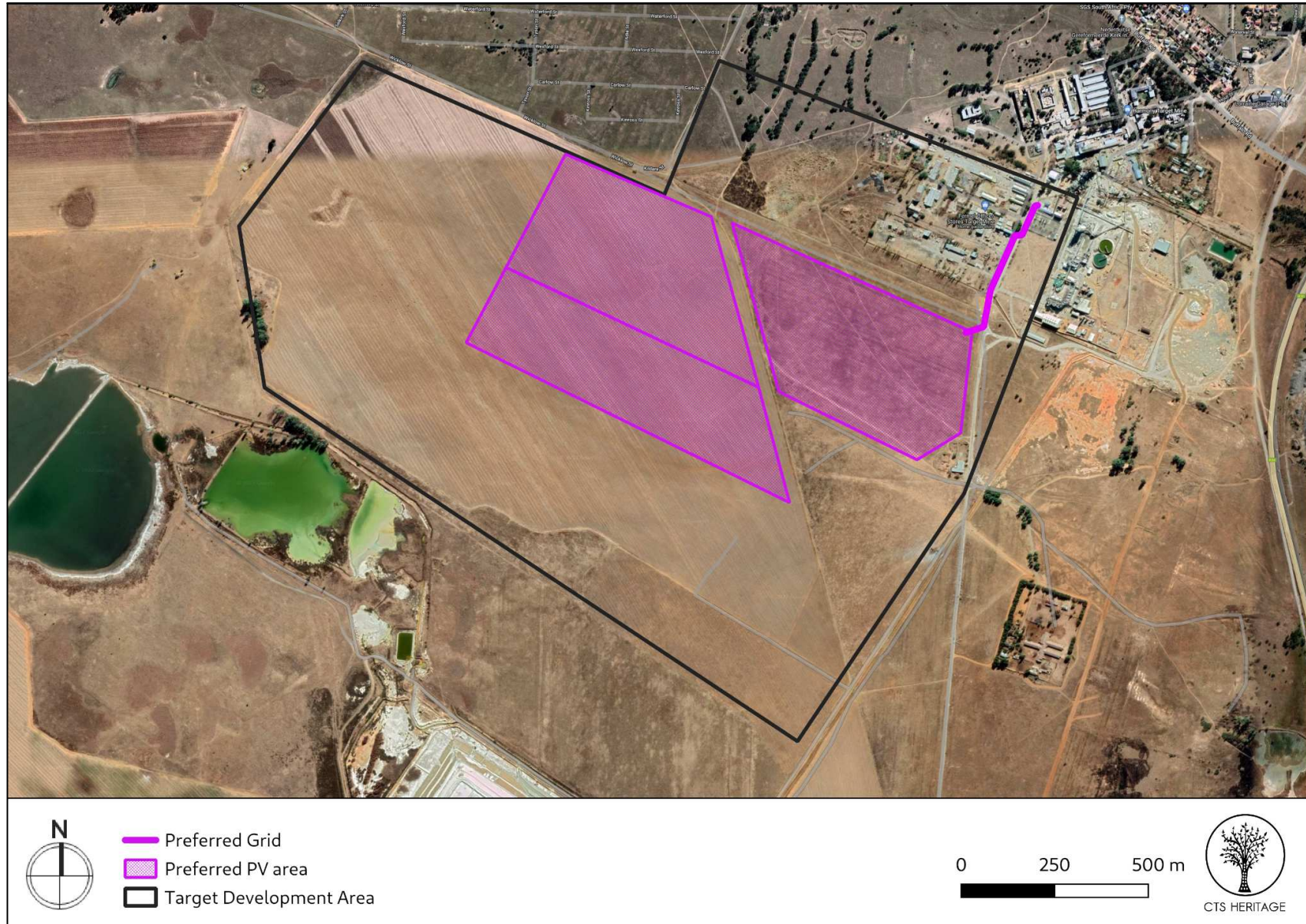
16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com

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

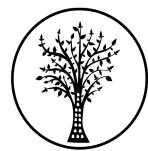


**Figure 1b. Overview Map.** Satellite image (2022) indicating the proposed development area

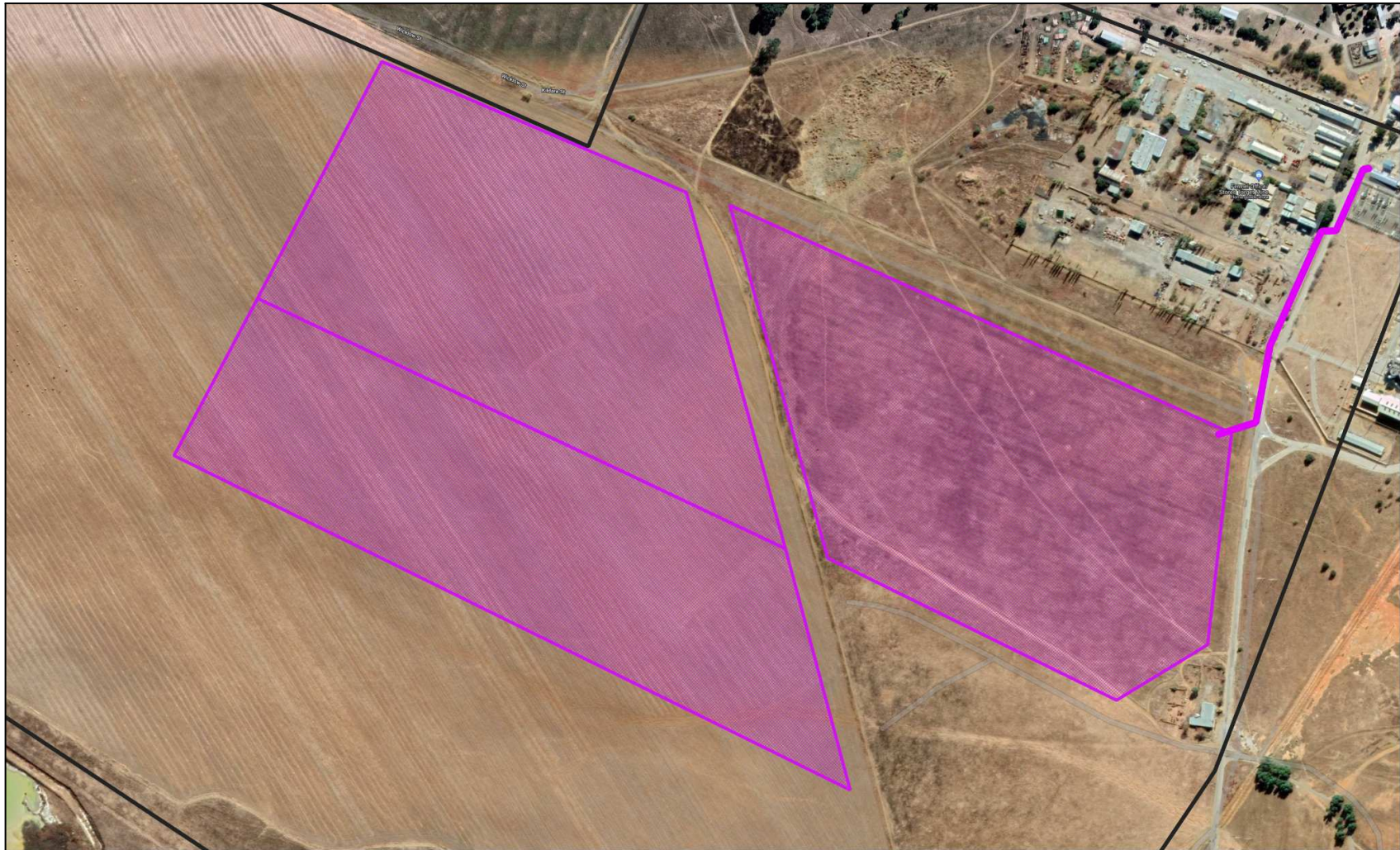


**Figure 1c. Overview Map.** Satellite image (2022) indicating the proposed development area





CTS HERITAGE

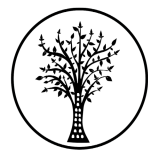


- Preferred Grid
- Preferred PV area
- Target Development Area

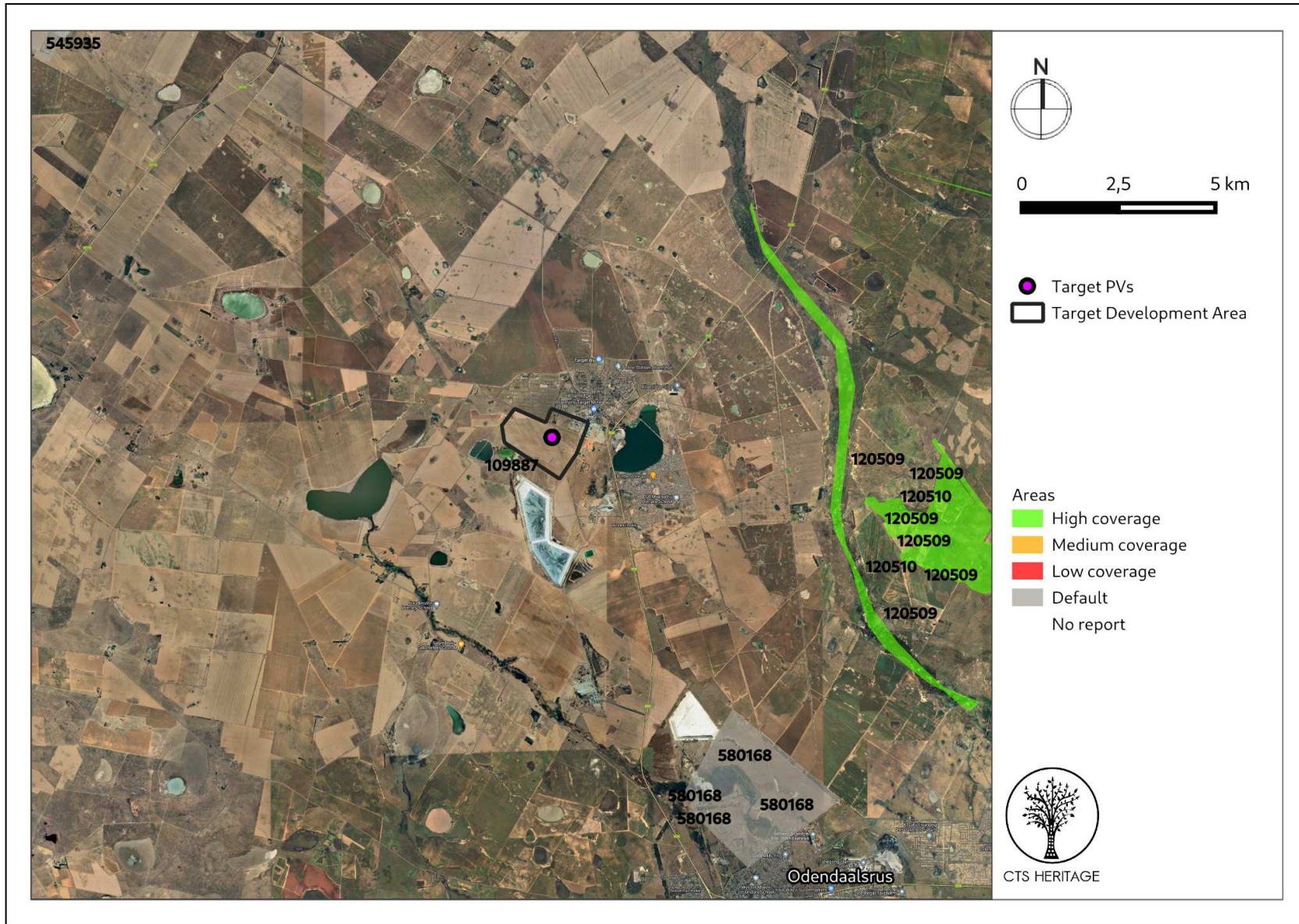


CTS HERITAGE

Figure 1e. Overview Map. Preferred



CTS HERITAGE



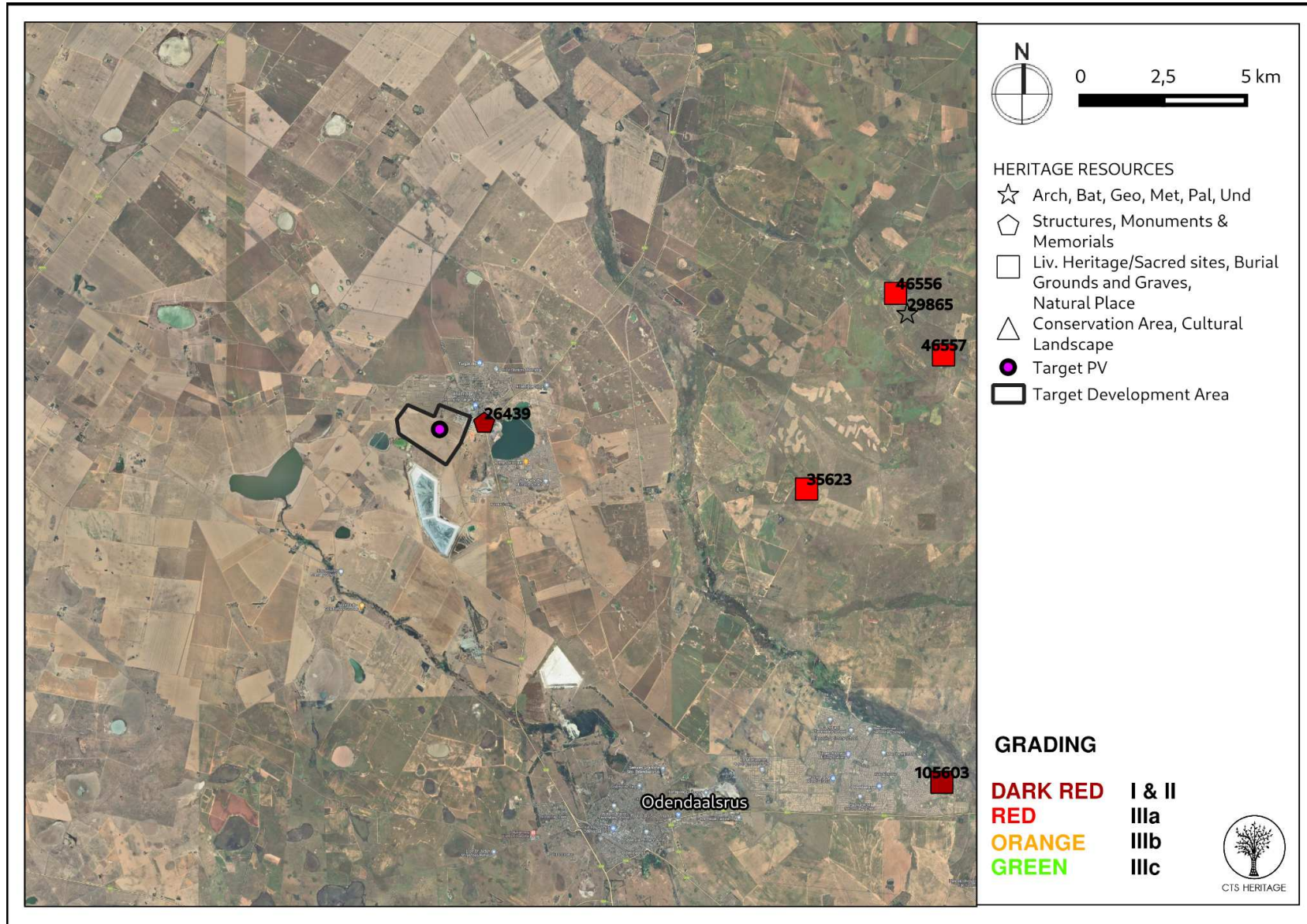
**Figure 2. Previous HIAs Map.** Previous Heritage Impact Assessments covering the proposed development area with SAHRIS NIDS indicated. Please see Appendix 2 for a full reference list.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com





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

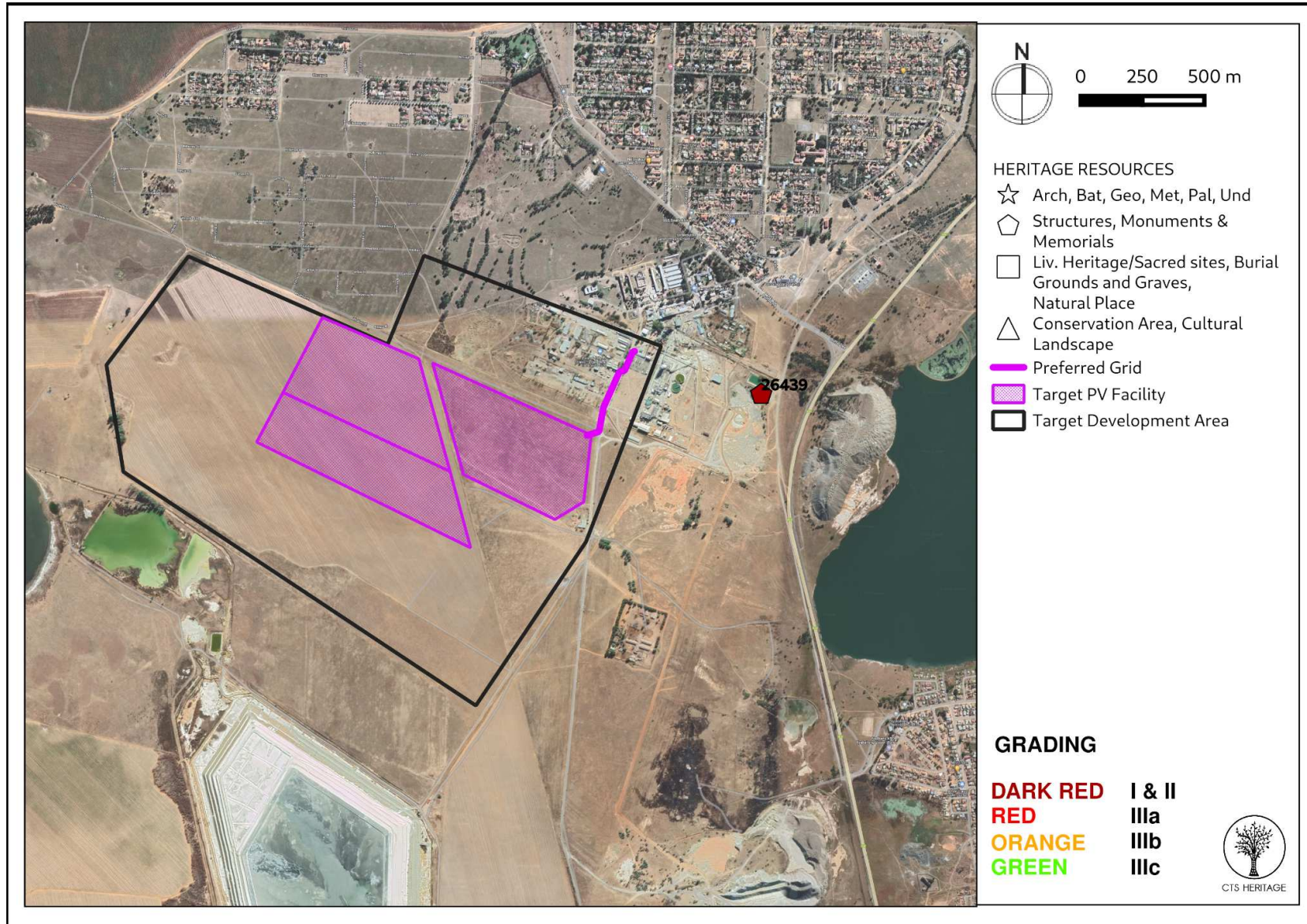
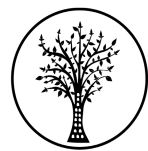
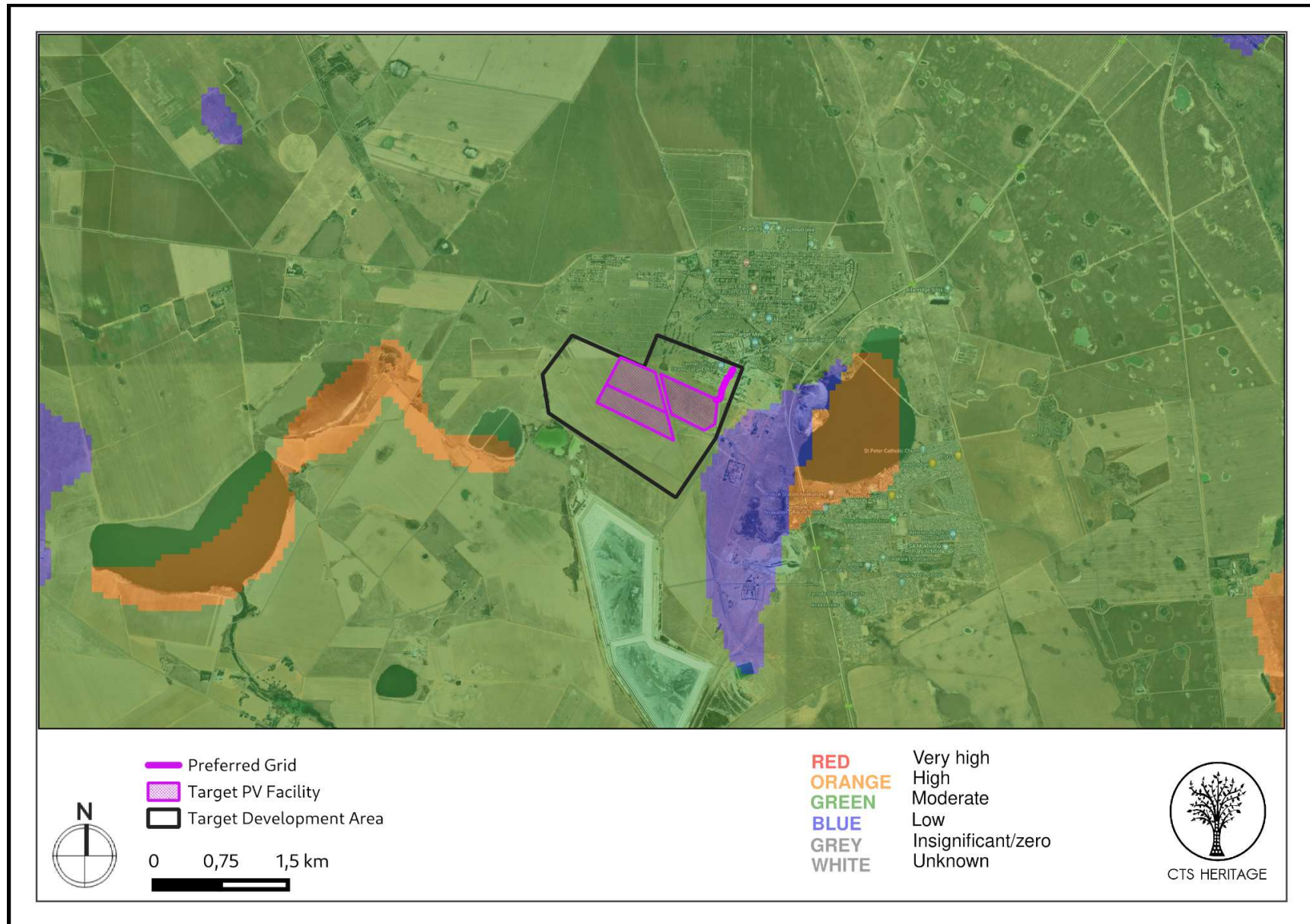


Figure 3a. Heritage Resources Map. Heritage Resources close to the development area



CTS HERITAGE

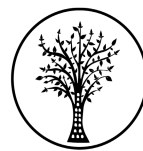


**Figure 4a. Palaeosensitivity Map.** Indicating fossil sensitivity underlying the study area. Please See Appendix 3 for a full guide to the legend.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

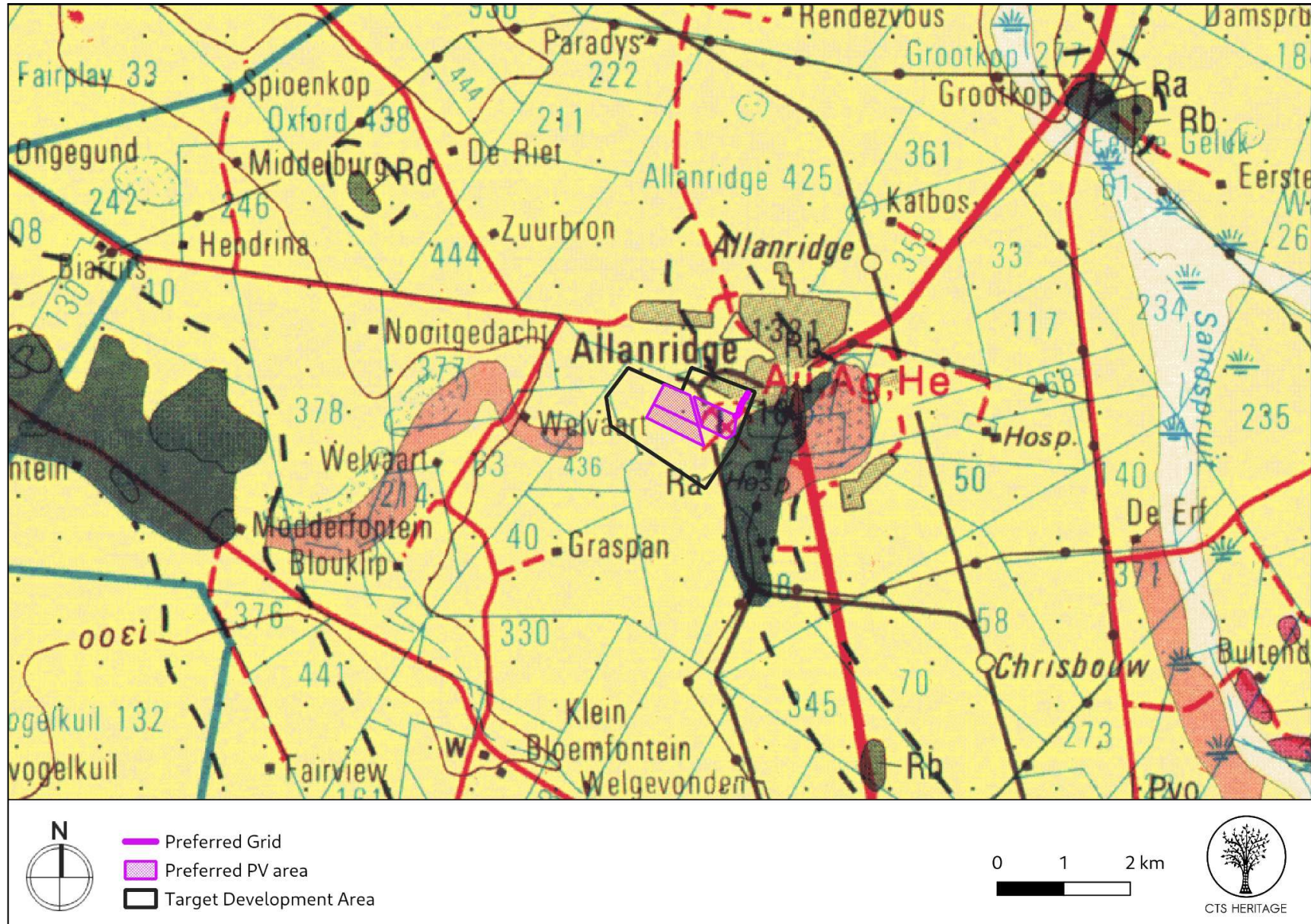


Figure 4b. Geology Map. Extract from the CGS 2726 Kronstad Geology Map indicating that the development area is underlain by Quaternary Sands (Qs)

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

## 8. Heritage Assessment

### Background

This application is for the proposed development of a PV facility and associated grid infrastructure located immediately adjacent to the town of Allanridge and approximately 15km from the town of Odendaalsrus in the Free State Province. Odendaalsrus started out in 1912 as a ramshackle collection of farms and a central church that became a town. In April 1946 gold was struck on the farm *Geduld* near the town. Allanridge is the main centre of the Loraine Gold Mining Company and is dominated by the tall headgear and complex reduction works that processes thousands of tons of gold-bearing ore every month. Allanridge was established as a settlement in the Free State goldfields in 1947 and was named after Allan Roberts whose borehole's proximity to the gold bearing reef was the precursor to the mining in the area. The town layout was designed by town planner William Backhouse, who also planned Welkom. It became a municipality on 21 December 1956.

The study area falls within the bioregion described by Mucina et al (2006) as the Dry Highveld Grassland Bioregion with the vegetation described as Vaal-Vet Sandy Grassland within a Grassland Biome. Land use in the general area is characterised by mining and agriculture, dominated by crops and cattle farming. The study area is characterised by deep sandy to loamy soils based on the extensive agricultural activities." According to Fourie (2021), "Existing surrounding land uses associated with the project area include a combination of mining related infrastructure and developments, powerlines, refuse dumps and dirt roads." As the area proposed for development is located within an existing mining area, it is very unlikely that significant built environment heritage will be impacted by the proposed development.

The proposed development area is located immediately adjacent to an old National Monument declared in 1960. This site has the shape of a keyhole and marks the place where the first gold prospecting borehole in this area of vast plains was drilled. Although the first payable gold deposits to be discovered in the Orange Free State were not found in this borehole, it was the first prospecting borehole in the area and the results obtained from it undoubtedly gave rise to other prospecting and the discovery of the Orange Free State goldfields. The monument erected round the borehole through the generosity of Lorraine Gold Mines Limited, is fittingly designed in the form of a keyhole to symbolise the unlocking of the goldfields of the Orange Free State. A detailed history of this monument is recorded on SAHRIS. The history of Allanridge is intimately linked with the gold mining industry and as such, it is unlikely that the proposed PV development will negatively impact on this unique cultural landscape as it is proposed to support the gold mining industry.

### Archaeology

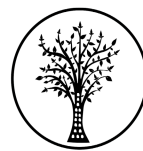
According to Fourie (2021), "The Free State has a rich archaeological and historical history going back millions of years and includes significant aspects such as Later Stone Age rock art, Battlefields and Iron Age stonewalled enclosures. The general surroundings of the study area became a melting pot of contact and conflict as it represents one of many frontiers where San hunter-gatherers, Nguni and Sotho-Tswana agro-pastoralists, Dutch Voortrekkers and British Colonists all came together. The ravages of war also swept across these plains, and in particular the South African War (1899-1902) as well as the Boer Rebellion (1914-1915)." No heritage resources of significance were identified by Van der Walt (2013) in his assessment of a nearby farm. Van der Walt (2013) notes that "some MSA finds might be possible around pans on the farm. It is important to note that the lack of sites can be attributed to a lack of sustainable water sources (no pans exist in the development footprint) in the development area as well as the lack of raw material for the manufacturing of stone tools. No Sites dating to the Early or Middle Iron Age have been recorded or are expected for the study area. The same goes for the Later Iron Age period where the study area is situated outside the western periphery of the distribution of Late Iron Age settlements in the Free State. However to the north of the study area, ceramics from the Thabeng facies belonging to the Moloko branch of the Urewe tradition were recorded at Oxf 1 and Platberg 32/71 (Maggs 1976, Mason 1986)".

In his field assessment conducted close to the area proposed for development, Rossouw (2012) noted that "The Stone Age archaeological footprint in the region is largely represented by the occurrence of open-site, Middle Stone Age (MSA) and Later Stone Age (LSA) assemblages that are mainly located near river drainages. Interestingly, a large number of MSA artifacts were found 2m below the surface at the Allanridge railway siding in 1953. The material is stored at the National Museum in Bloemfontein. Unfortunately, the context of the assemblage is unknown. MSA as well as LSA artefacts, in association with mammal fossil remains, are also found in a series of erosional gullies along the Sand and Doring Rivers between Virginia and Theunisen. There are no records of rock engravings known from the area. The ruins of a large complex of Late Iron Age settlements (OXF 1, Maggs 1976) are

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

found at Strydfontein between Hennenman and Ventersburg. However, it is noted that the affected area is situated outside the western periphery of distribution of Late Iron Age settlements below the Vals River in the Free State (Maggs 1976).” In Rossouw’s assessment, he found no evidence of *in situ* Stone Age or Iron Age archaeological material. He noted no indications of prehistoric structures or rock engravings, historical buildings or structures older than 60 years. Two small graveyards were also recorded during the survey.

It is possible that the proposed development will impact on significant archaeological heritage and a field assessment to determine this is recommended.

### **Palaeontology**

According to the SAHRIS Palaeosensitivity Map the development sites are underlain by sediments of moderate fossil sensitivity (Figure 4) consisting of caenozoic regolith according to the extract from the CGS 2726 Kroonstad Geology Map (Figure 4b). According to a Palaeontological assessment completed by Groenewald (2013) for a development located nearby in similar sediments, “No fossils have been described from the quaternary aeolian deposits in the study area, although fossil finds have been recorded from similar aged sediments, for example: the Cornelia Formation in the north-eastern Free State (Johnson et al, 2006).” It is possible that sensitive sediments of the Adelaide Subgroup underly the Quaternary Sands. According to Groenewald (2013), “The Permian Adelaide Subgroup is interpreted as a meandering river deposit grading upwards into a lacustrine environment and is well known for containing fossils (Johnson et al, 2006). Although difficult to correlate the study area directly with more well-known outcrops of the lower part of the Adelaide Subgroup to the east, the subgroup is known to contain very good examples of Glossopteris flora as well as numerous remains of vertebrate fossils associated with the Dicynodon Assemblage Zone in the north-eastern part of the Karoo Basin (Groenewald, 1989 and 1996).” Groenewald (2013) concludes that “There is a possibility that fossils could be encountered during excavation into both the quaternary sand deposits and the Adelaide Subgroup sediments within the development footprint. The study area has been extensively modified through agricultural development and it is unlikely that fossils will be exposed in these developed areas.”

Since there is a very small chance that fossils from the Adelaide Subgroup below the ground surface may be disturbed, it is recommended that a Fossil Chance Find Protocol be implemented during development.

### **RECOMMENDATION**

**As it is possible that significant heritage resources will be impacted by the proposed development, it is recommended that a Heritage Impact Assessment is completed that satisfies section 38(3) of the NHRA and assesses likely impacts to archaeological and palaeontological heritage.**

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

## 9. Scoping Assessment Impact Table

### Impact

- Impact to archaeological and built environment 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, remnants of Iron Age settlements, burial grounds and graves, historical artefacts, historical structures and rock art engravings through destruction during the development phase and disturbance during the operational phase is possible.
- Impacts to palaeontological resources are unlikely.
- There is the potential for the cumulative impact of proposed solar energy facilities to negatively impact the cultural landscape due to a change in the landscape character from rural and mining to semi-industrial, however, due to the density of mining activities in the area, the impact on the experience of the cultural landscape is not foreseen to be significant.

Issue	Nature of Impact	Extent of Impact	No-Go Areas
Impact to significant heritage resources through destruction during the development phase and disturbance during the operational 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

**The heritage resources in the area proposed for development are not yet sufficiently recorded**

Based on the available information, including the scale and nature of the proposed development, it is likely that significant heritage resources will be impacted by the proposed development and as such it is recommended that further heritage studies are required in terms of section 38 of the NHRA with specific focus on impacts to archaeological heritage.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

## APPENDIX 1

### List of heritage resources within the development area

Site ID	Site no	Full Site Name	Site Type	Grading
46556	GRTS001	Grootspruit Solar 001	Burial Grounds & Graves	Grade IIIa
46557	GRTS002	Grootspruit Solar 002	Burial Grounds & Graves	Grade IIIa
84405	DERMA001	Demarcation of Agricultural 001	Structures	Grade IIIc
84407	DERMA002	Demarcation of Agricultural 002	Structures	Grade IIIc
29865	Grootspruit 252/0	Grootspruit 252/0, Odendaalsrus RD	Archaeological	
35623	HIL001	Hilton 001	Burial Grounds & Graves	Grade IIIa
105603	Grave of Siphon Mutsi	Grave of Siphon Mutsi, Kutlwanong Cemetery, Odendaalsrus	Burial Grounds & Graves	Grade II
<b>26439</b>	<b>9/2/328/0001</b>	<b>Prospecting bore-hole, Aandenk, Odendaalsrus District</b>	<b>Monuments &amp; Memorials, Structures</b>	<b>Grade II</b>

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com





CTS HERITAGE

## APPENDIX 2

### Reference List with relevant AIAs and PIAs

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
109887	HIA Phase 1	Lloyd Rossouw	10/09/2012	Phase 1 Heritage Impact Assessment of a Proposed New Solar Facility at Grootspuit 252 near Allanridge, FS
120509	Archaeological Specialist Reports	Jaco van der Walt	06/05/2013	Archaeological Scoping Report for the Proposed Grootkop Solar Energy Facility
120510	PIA Desktop	Barry Millsteed		Desktop Palaeontology Heritage Impact Assessment Report for the Grootkop Solar Energy Facility
164270	AIA Phase 1	Jaco van der Walt	30/08/2013	Archaeological Impact Assessment for the proposed Grootkop Solar Energy Facility, Free State Province

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: [info@ctsheritage.com](mailto:info@ctsheritage.com) Web: [www.ctsheritage.com](http://www.ctsheritage.com)



CTS HERITAGE

## APPENDIX 3 - Keys/Guides

### Key/Guide to Acronyms

<b>AIA</b>	Archaeological Impact Assessment
<b>DARD</b>	Department of Agriculture and Rural Development (KwaZulu-Natal)
<b>DEA</b>	Department of Environmental Affairs (National)
<b>DEADP</b>	Department of Environmental Affairs and Development Planning (Western Cape)
<b>DEDEAT</b>	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
<b>DEDECT</b>	Department of Economic Development, Environment, Conservation and Tourism (North West)
<b>DEDT</b>	Department of Economic Development and Tourism (Mpumalanga)
<b>DEDTEA</b>	Department of economic Development, Tourism and Environmental Affairs (Free State)
<b>DENC</b>	Department of Environment and Nature Conservation (Northern Cape)
<b>DMR</b>	Department of Mineral Resources (National)
<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development (Gauteng)
<b>HIA</b>	Heritage Impact Assessment
<b>LEDET</b>	Department of Economic Development, Environment and Tourism (Limpopo)
<b>MPRDA</b>	Mineral and Petroleum Resources Development Act, no 28 of 2002
<b>NEMA</b>	National Environmental Management Act, no 107 of 1998
<b>NHRA</b>	National Heritage Resources Act, no 25 of 1999
<b>PIA</b>	Palaeontological Impact Assessment
<b>SAHRA</b>	South African Heritage Resources Agency
<b>SAHRIS</b>	South African Heritage Resources Information System
<b>VIA</b>	Visual Impact Assessment

### Full guide to Palaeosensitivity Map legend

	<b>RED:</b>	VERY HIGH - field assessment and protocol for finds is required
	<b>ORANGE/YELLOW:</b>	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
	<b>GREEN:</b>	MODERATE - desktop study is required
	<b>BLUE/PURPLE:</b>	LOW - no palaeontological studies are required however a protocol for chance finds is required
	<b>GREY:</b>	INSIGNIFICANT/ZERO - no palaeontological studies are required
	<b>WHITE/CLEAR:</b>	UNKNOWN - these areas will require a minimum of a desktop study.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

## 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.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

**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.

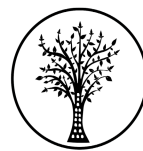
This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

- 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

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: info@ctsheritage.com Web: www.ctsheritage.com



CTS HERITAGE

- 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 50 Heritage Impact Assessments throughout South Africa.

CTS Heritage

16 Edison Way, Century City, Cape Town

Tel: +27 (0)87 073 5739 Email: [info@ctsheritage.com](mailto:info@ctsheritage.com) Web: [www.ctsheritage.com](http://www.ctsheritage.com)