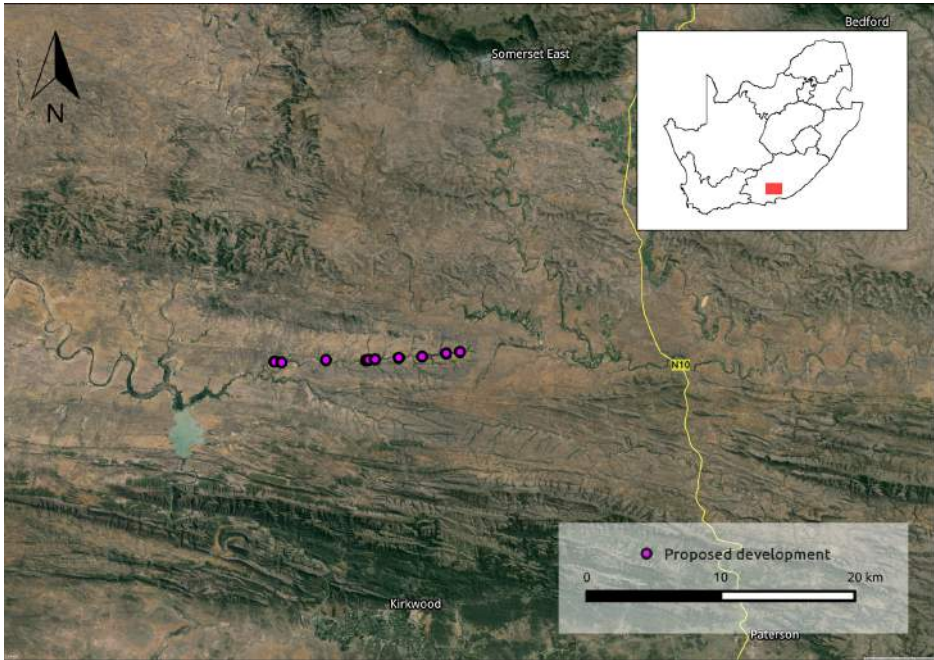


HERITAGE SCREENER

CTS Reference Number:	CTS15_008
Client:	SRK Consulting
Date:	18 August 2015
Proposed development:	Skoenmakers River Project
<div style="display: flex; align-items: center;">  </div> <p>Figure 1a. Satellite image with proposed development and study area location indicated.</p>	
Recommendation by CTS Heritage Specialists: (TYPE 2)	<p>(2) The heritage resources and the area proposed for development are only partially recorded</p> <p>It is recommended that:</p> <ul style="list-style-type: none"> - A Stone Age specialist, knowledgeable of the archaeology of the area, survey the following river rehabilitation sections: Zone 3: Portion 4 of Farm 407 (about 750m); Zone 5: Before bridge 4 (about 800m along the side of the river which is not farmed); Zone 7: Portion 7 of Kruis River Outspan 248 (about 1.1km between S33 05 16.66; E25 23 00.16 and S33 05 24.61; E25 23 21.60); Zone 10: About 950m between S33 05 25.81; E25 18 45.00 and S33 05 34.41; E25 19 11.24. It is recommended that no more than 1 day on site will be required to complete the fieldwork. - Excavations into bedrock are not currently anticipated. However, should impacts on bedrock be required, it is recommended that a palaeontologist be called on site to inspect newly cut surfaces during the construction phase.

1. Proposed Development Summary

Proposed restoration (includes increases in height and length and widening of the current footprint) of ten river crossings and river rehabilitation over the Skoenmakers River for a total length of approximately 30km.

2. Application References

Name of relevant heritage authority(s)	ECPHRA - Eastern Cape Provincial Heritage Resources Authority
Name of decision making authority(s)	DEA - Department of Environmental Affairs

3. Property Information

Farm Name and Number	Bavianskrantz 151, Farm 407, Palmietfontein 250, Kruis Rivier 248, Geelhoutboom 247, Fonteins Plaats 246 and Boerslagte 245
Local Municipality	Blue Crane Route
District Municipality	Cacadu
Previous Magisterial District	Somerset East
Province	Eastern Cape
Current Use	Agricultural, vacant
Current Zoning	NA
Extent of property	Approximately 30km

4. Nature of the Proposed Development

Surface area to be affected/destroyed	30km along the river for rehabilitation of the riverbank and restoration and widening of ten river crossings
Depth of excavation (m)	NA
Height of development (m)	NA - some of the bridges will be raised
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.	
2. Construction of a bridge or similar structure exceeding 50m in length.	X
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

River rehabilitation will include construction and placement of measures to prevent further degradation of the river banks.

7. Mapping

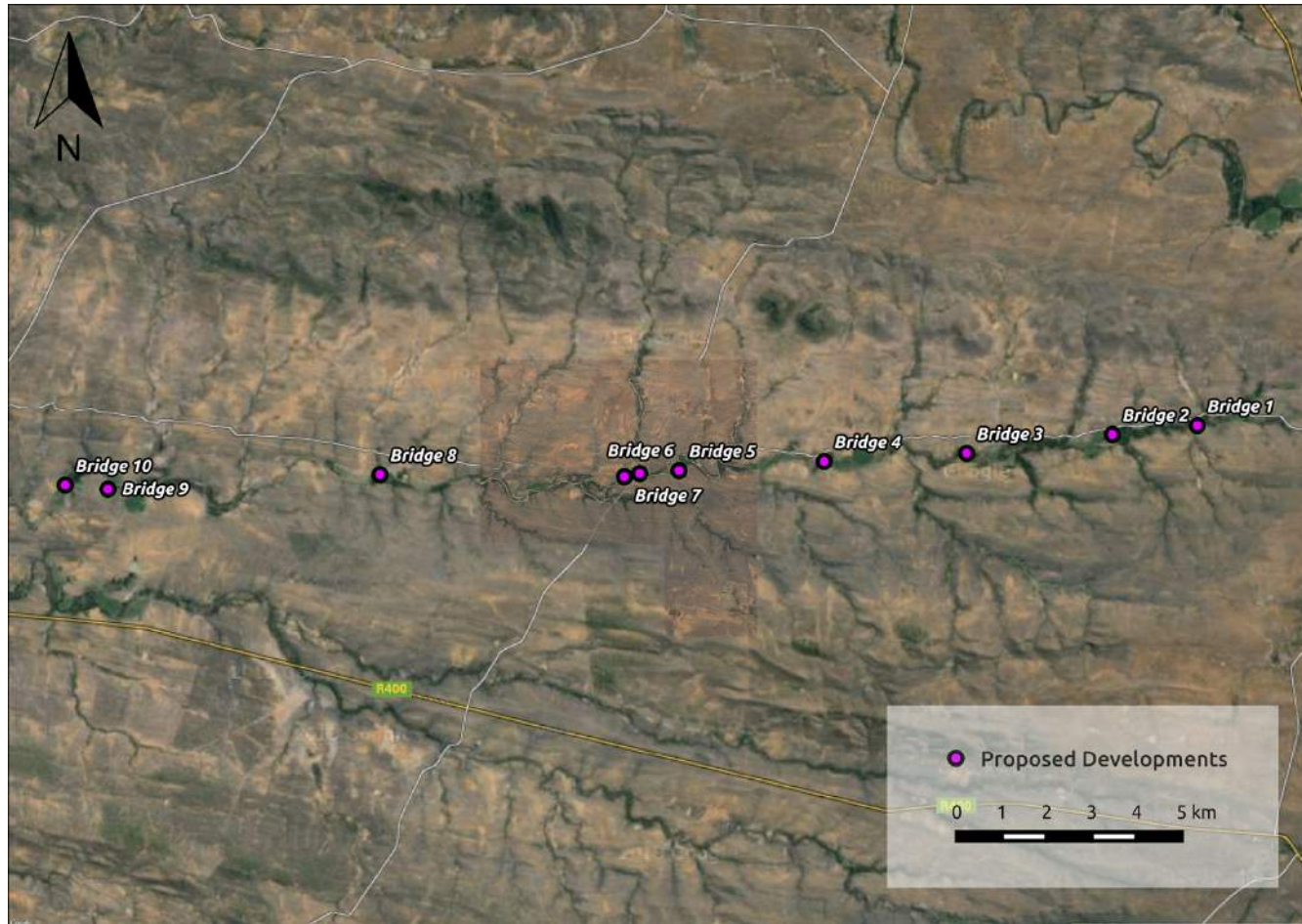
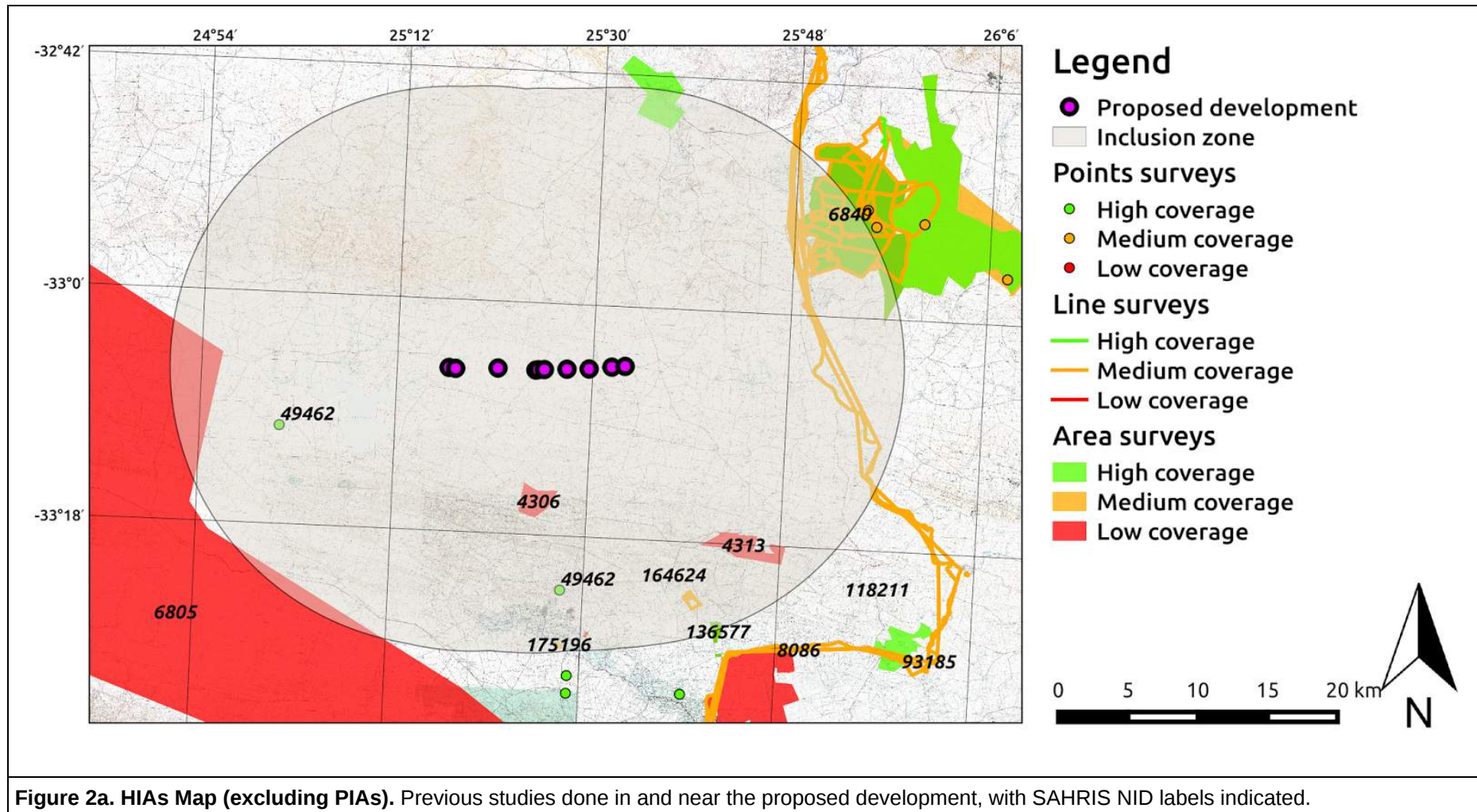
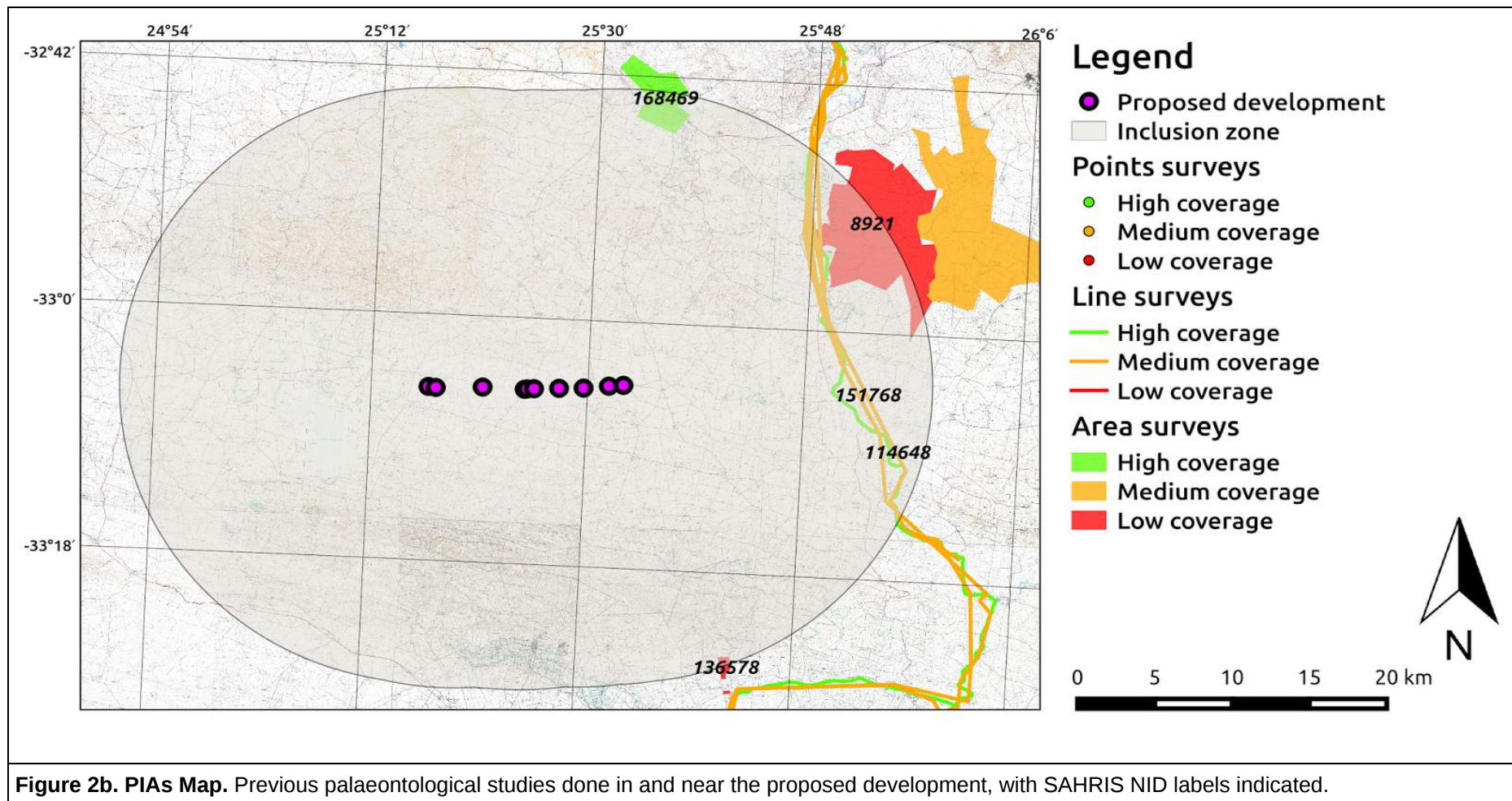
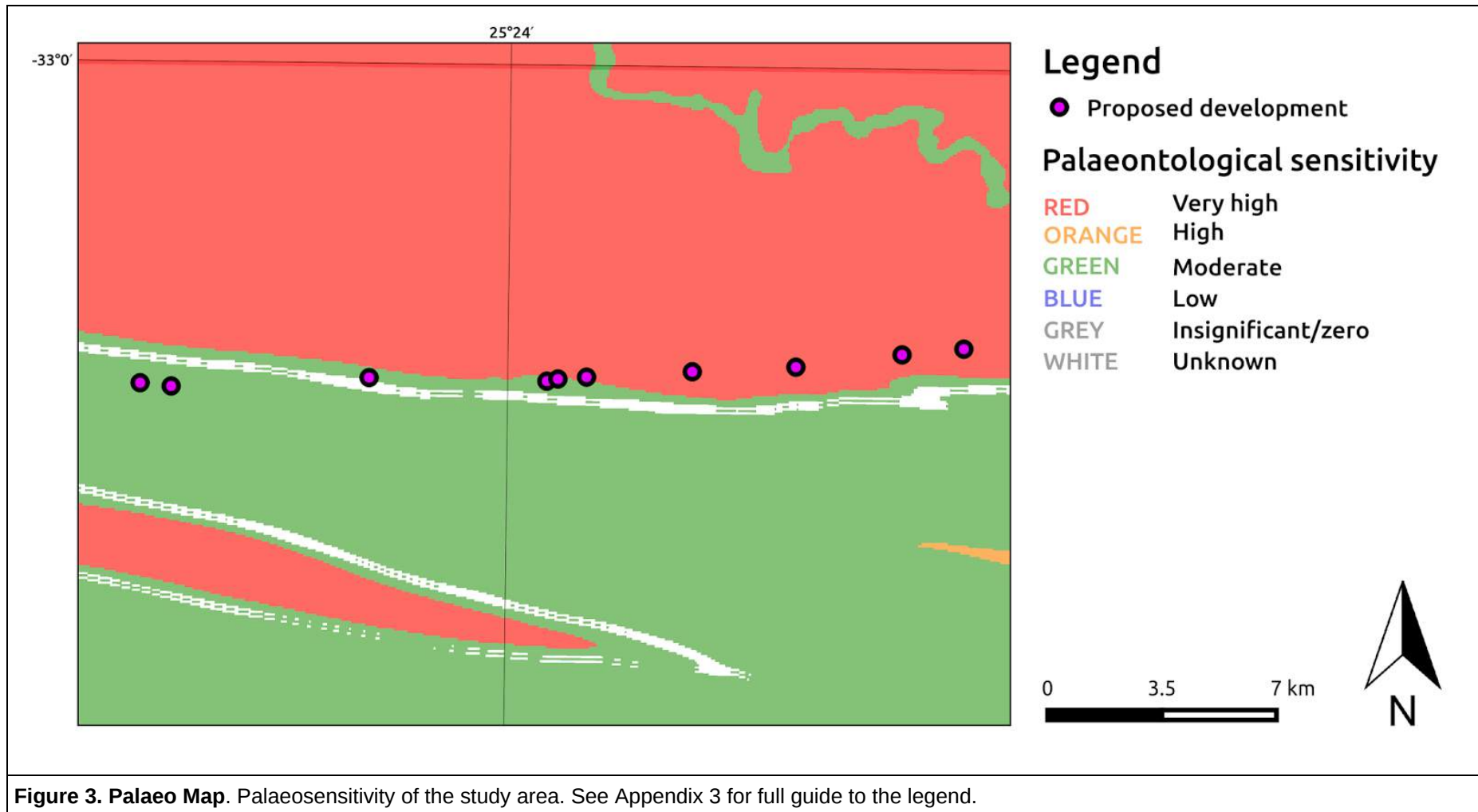
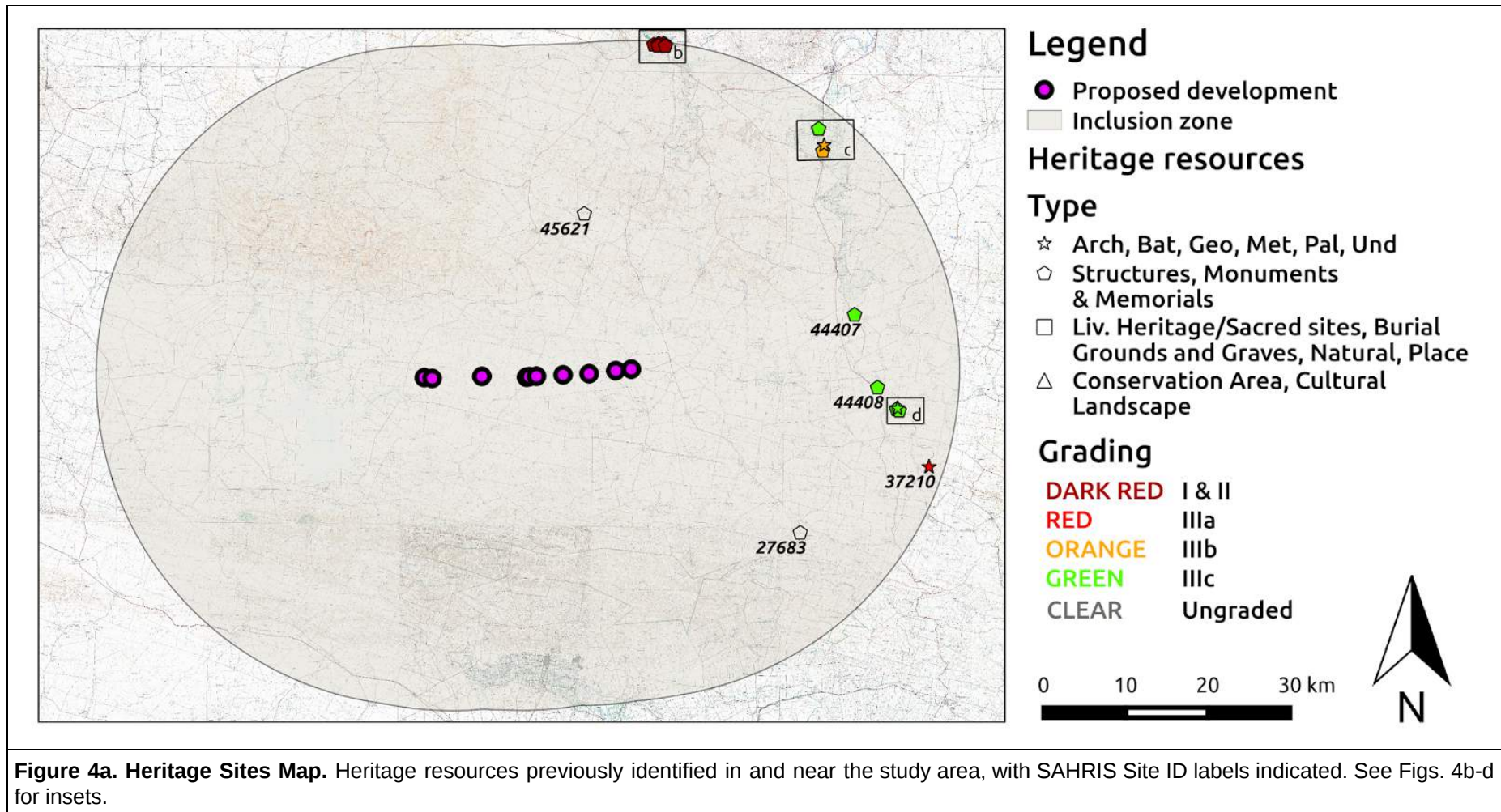


Figure 1b. Overview Map. Satellite image with proposed development indicated.











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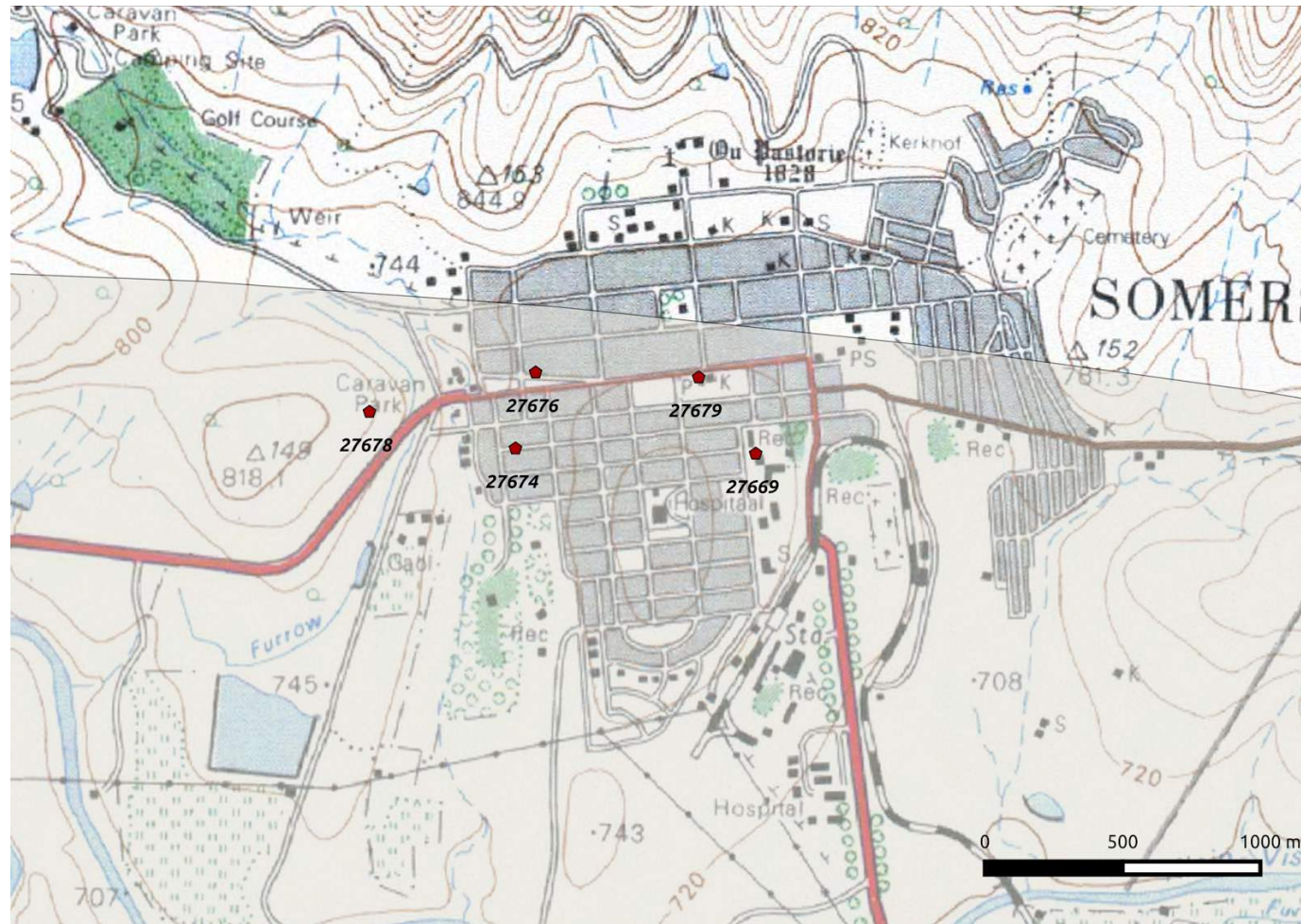


Figure 4b. Heritage Sites Map. Heritage resources previously identified in the inset of Figure 4a, with SAHRIS Site ID labels indicated.



CEDAR TOWER
SERVICES

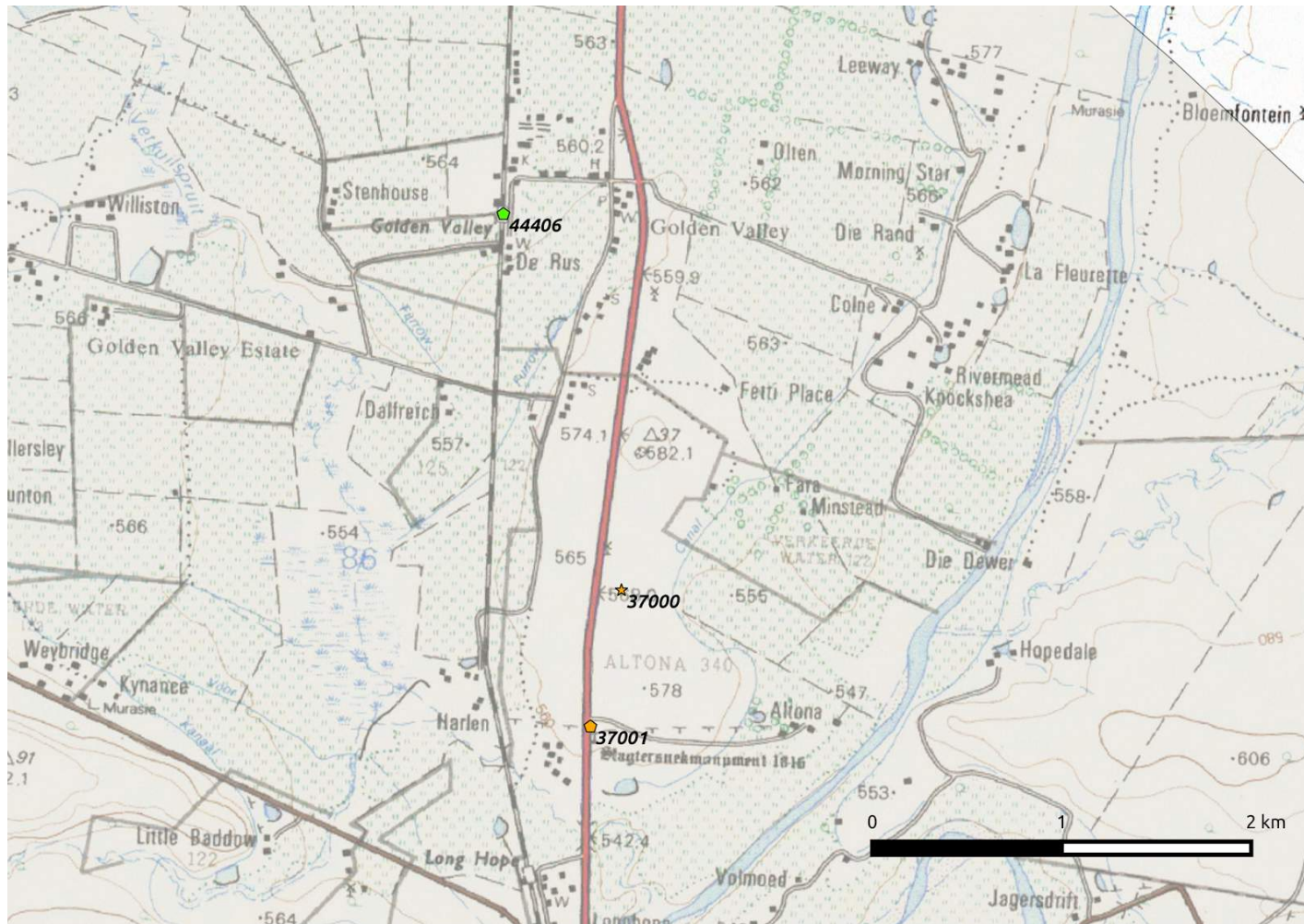


Figure 4c. Heritage Sites Map. Heritage resources previously identified in the inset of Figure 4a, with SAHRIS Site ID labels indicated.

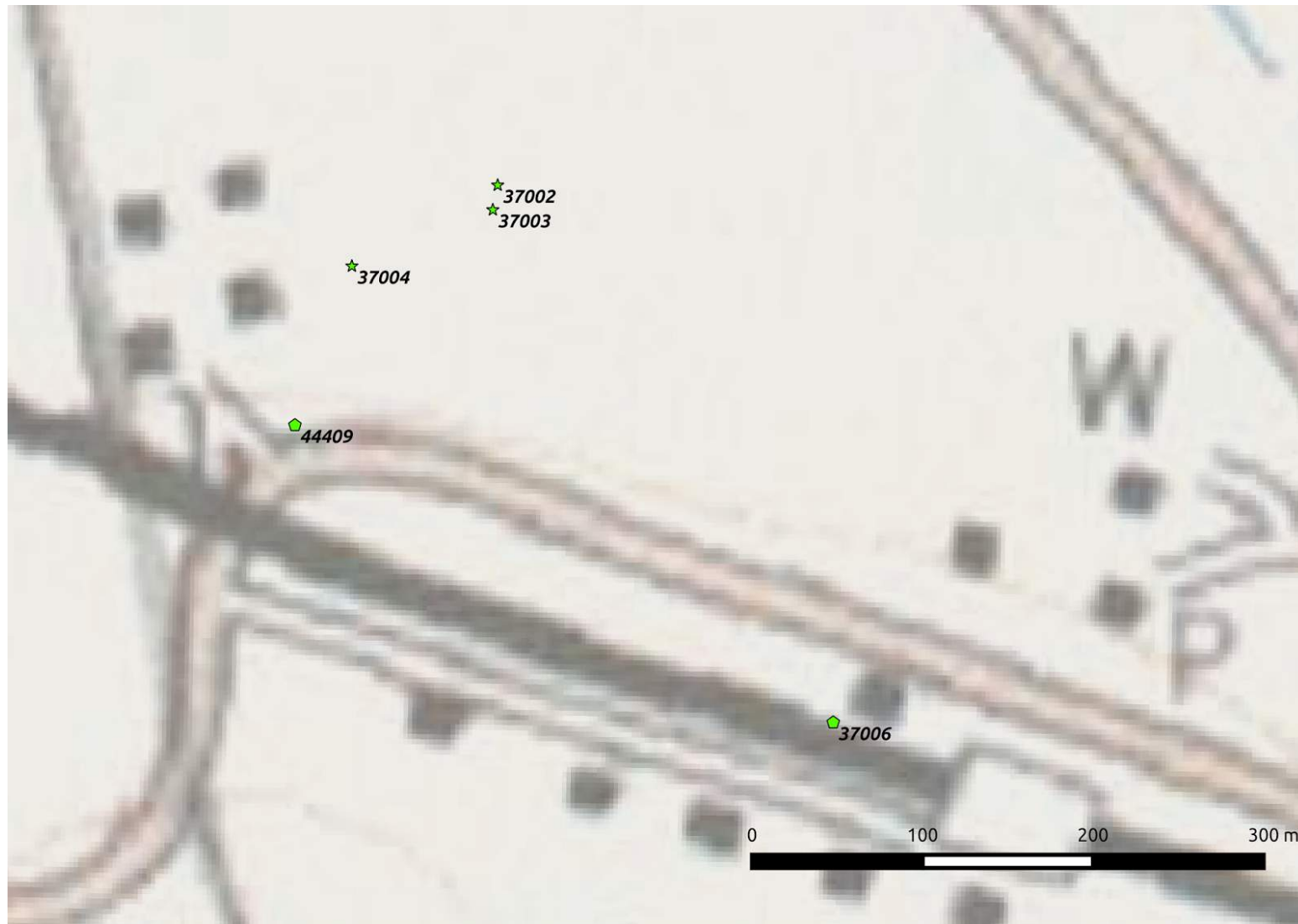


Figure 4d. Heritage Sites Map. Heritage resources previously identified in the inset of Figure 4a, with SAHRIS Site ID labels indicated.

Heritage statement and character of the area

Project and general character of the area

The Department of Water Affairs is planning the rehabilitation of approximately 30km of river bank and the restoration of ten bridges over the Skoenmakers River. The project aims to rehabilitate the river banks due to erosion and increased invasive vegetation. A review of Google Earth's time-lapsed imagery revealed that most of the bridges and riverbank have already been damaged in the last year during floods. Currently most of the riverbanks are covered in thick vegetation which would hamper surface visibility.

Heritage character of the area

CTS assessed sites and previous studies undertaken within a 40km inclusion zone from the proposed areas of rehabilitation in order to understand the type and significance of heritage resources already identified in the area.

None of the sites recorded within the 40km inclusion zone will be affected by the proposed development. Five of these sites are buildings within the town of Somerset East which are Provincial Heritage Sites. Amongst other sites are rock art sites located in the mountainous areas of the inclusion zone; Stone Age artefact scatters of low significance and transport infrastructure older than 60 years identified along the Nqura Manganese Railway Line.

None of the bridges proposed for restoration are older than 60 years since they were all built in the 1970s-1980s in order to allow river crossing. These bridges are therefore not protected under the National Heritage Resources Act.

From a palaeontological perspective, bridges 6, 7 and 8 are underlain by the Waterford Formation and bridges 9 and 10 are underlain by the Fort Brown Formation. Both these formations are of moderate fossil sensitivity. Since no excavation to bedrock is expected, these formations will not require further assessment.

Bridges 1 to 5 are located in a very high palaeosensitivity zone and are underlain by the Koonap Formation of the Beaufort Group. However, excavations into bedrock are not expected, and, since the overburden on the river banks overlays the sensitive formations at bedrock level, a Palaeontological Impact Assessment will not be necessary as fossils will not be exposed prior to construction. **Note that should the engineering brief be revised to require excavation into bedrock at bridges 1-5, it is recommended that a palaeontologist be called on site to inspect newly cut surfaces.**

It is expected that Stone Age artefact scatters will be located along the length of the river. Both the upgrading of the bridges and the rehabilitation of the rivers may impact these artefacts. The significance of these resources should be assessed, but no heritage resources of high significance are expected to be identified along this section of the river. Most of the riverbank has been severely affected by flooding which occurred over the last few years and therefore it is expected that few, if any, sites will be found *in situ*. However, since no assessments are available for the Skoenmakers River, **it is recommended that a Stone Age specialist, knowledgeable of the archaeology of the area, survey the following river rehabilitation sections:**

- **Zone 3: Portion 4 of Farm 407 (about 750m)**
- **Zone 5: Before bridge 4 (about 800m along the side of the river which is not farmed)**
- **Zone 7: Portion 7 of Kruis River Outspan 248 (about 1.1km between S33 05 16.66; E25 23 00.16 and S33 05 24.61; E25 23 21.60)**
- **Zone 10: About 950m between S33 05 25.81; E25 18 45.00 and S33 05 34.41; E25 19 11.24**

APPENDIX 1 - Site List

NID	Site reference	Full Site Name	Site Type	Grading
27683	9/2/082/0004	Ann's Villa, Somerset East District	Building	Grade II ¹
27678	9/2/082/0005	Somerset East Museum, Somerset East	Building	Grade II
27679	9/2/082/0006	Dutch Reformed Church, Charles Street, Somerset East	Building	Grade II
27676	9/2/082/0008	154 Nojoli Street, Somerset East	Building	Grade II
27674	9/2/082/0013-001	Old College Building, New Street, Somerset East	Building	Grade II
27669	9/2/082/0013-002	College House, Gill College, Somerset East	Building	Grade II
37008	HOT064	Hotazel 064	Rock Art	Grade IIIa
37210	TRANS-ECNC014	Transnet - Eastern Cape, Northern Cape 014	Rock Art	Grade IIIa
37001	HOT057	Hotazel 057	Artefacts, Monuments & Memorials	Grade IIIb
37000	HOT056	Hotazel 056	Artefacts	Grade IIIb
37007	HOT063	Hotazel 063	Artefacts	Grade IIIc
37006	HOT062	Hotazel 062	Artefacts	Grade IIIc
37005	HOT061	Hotazel 061	Artefacts	Grade IIIc
37004	HOT060	Hotazel 060	Artefacts	Grade IIIc
37002	HOT058	Hotazel 058	Artefacts	Grade IIIc

¹ This site was not graded on SAHRIS, however, since the site has been previously protected as Grade II, CTS kept the provisional grading.



37189	TRANS-ECNC001	Transnet - Eastern Cape, Northern Cape 001	Settlement, Artefacts, Palaeontological	Grade IIIc
37192	TRANS-ECNC003	Transnet - Eastern Cape, Northern Cape 003	Artefacts	Grade IIIc
44406	NGQ14	Ngqura 16 Manganese Rail - 14	Transport infrastructure	Grade IIIc
44407	NGQ15	Ngqura 16 Manganese Rail - 15	Transport infrastructure	Grade IIIc
44408	NGQ16	Ngqura 16 Manganese Rail - 16	Transport infrastructure	Grade IIIc
44409	NGQ17	Ngqura 16 Manganese Rail - 17	Transport infrastructure	Grade IIIc
44410	NGQ18	Ngqura 16 Manganese Rail - 18	Transport infrastructure	Grade IIIc
37003	HOT059	Hotazel 059	Artefacts	Grade IIIc

APPENDIX 2 - Reference List

NID	Report type	Author/s	Date	Title
4306	AIA	Lita Webley	16/06/2012	Proposed Kaboega Dam - Phase 1 Heritage Impact Assessment
4313	AIA	Jonathan Kaplan	27/04/2008	Archaeological Impact Assessment Proposed Lodge and Game Viewing Development on the Farm Melkhoutboom No. 6, Division of Alexandria, Sundays River Municipality, Eastern Cape Province
6805	HIA	Johnny van Schalkwyk	01/09/2007	Heritage Impact Assessment of Gamma Grassridge Power Line Corridors and Substation, Eastern, Western and Northern Cape Provinces, South Africa
6840	HIA	Tim Hart and Lita Webley	26/06/2010	Proposed Terra Wind Energy Golden Valley Project, Blue Crane Route Local Municipality
8086	AIA	Johan Nel	14/11/2008	Final Report Heritage Resources Scoping Survey & Preliminary Assessment Transnet Freight Line EIA, Eastern Cape and Northern Cape
8921	PIA	John Almond	26/07/2010	Proposed Terra Wind Energy Golden Valley Project, Blue Crane Route Local Municipality
49462	AIA	Karen Van Ryneveld	06/04/2012	Utilization Of Existing Gravel Borrow Pits, Cacadu District, Eastern Cape, South Arica (sic)
92575	HIA	Elize Becker	10/10/2012	Phase 1 Heritage Impact Assessment Kimberley to De Aar
93185	HIA	Elize Becker	01/11/2012	Phase 1 Heritage Impact Assessment Hotazel to Kimberley and De Aar to Port Ngqura
104309	AIA	Johan Binneman	12/11/2012	A Phase 1 Archaeological Impact Assessment for the proposed expansion of the existing agricultural activities on Falcon Ridge, Portion 274 of Strathomers estate no. 42, Sundays River Valley Municipality, Eastern Cape Province.
108580	HIA	Johan Binneman and John Almond	01/12/2012	Citrus Bend Farm Archaeology

114648	PIA	John Almond	01/10/2012	Palaeontological Specialist Assessment: Desktop Study Proposed 16 Mtpa Expansion Of Transnet's Existing Manganese Ore Export Railway Line & Associated Infrastructure Between Hotazel And The Port Of Ngqura, Northern & Eastern Cape. Part 1: Hotazel To Kimberley, Northern Cape
129751	HIA	Elize Becker	20/02/2013	Phase 1 Heritage Impact Assessment Hotazel To Kimberley And De Aar To Port Of Ngqura
136577	AIA	Johan Binneman	05/09/2012	A Phase 1 Archaeological Impact Assessment For The Proposed Expansion Of The Existing Agricultural Activities On River Bend Citrus Farm, Remainder Of Farm 82 Wolve Kop, Portion 1 Of Farm 77 Wellshaven And Portion 3 Of Farm 77 Honeyvale, Near Addo, Sundays River Valley Municipality, Eastern Cape Province
136578	PIA	John Almond	01/08/2012	Palaeontological Specialist Study: Desktop Assessment Expansion Of River Bend Citrus Farm Near Addo, Sundays River Valley Municipality, Eastern Cape
151768	PIA	John Almond	01/11/2013	Palaeontological Specialist Assessment: Combined Desktop And Field-based Study: Proposed 16 Mtpa Expansion Of Transnet's Existing Manganese Ore Export Railway Line & Associated Infrastructure Between Hotazel And The Port Of Ngqura, Northern & Eastern Cape.
164624	AIA	Johan Binneman	23/09/2013	Phase 1 Archaeological Impact Assessment For The Proposed Clearing Of Indigenous Vegetation For The Construction Of A Boundary Fence Around The South African Police Service's Training Facility At Slagboom, Near Addo, Sundays River Valley Municipality, Eastern Cape Province
168469	PIA	John Almond	30/04/2014	Palaeontological Specialist Assessment: Combined Desktop And Field-based Study For The Proposed Nojoli Wind Farm Near Cookhouse, Blue Crane Municipality, Eastern Cape
175196	AIA	Johan Binneman	01/04/2013	A Phase 1 Archaeological Impact Assessment For The Proposed Clearing Of Land For Agricultural Purposes On Panzi Citrus Farm Near Kirkwood, Division Of Uitenhage, Sundays River Valley Municipality, Eastern Cape Province
258873	AIA	Jayson Orton	30/03/2015	Golden Valley Wind Energy Facility - Proposed Road And Cable Alignment

APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

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

Full guide to Palaeosensitivity Map legend

RED:	VERY HIGH - field assessment and protocol for finds is required
ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN:	MODERATE - desktop study is required
BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for 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 PALAEONTOLOGICAL 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:

- 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.**