

HERITAGE SCREENER

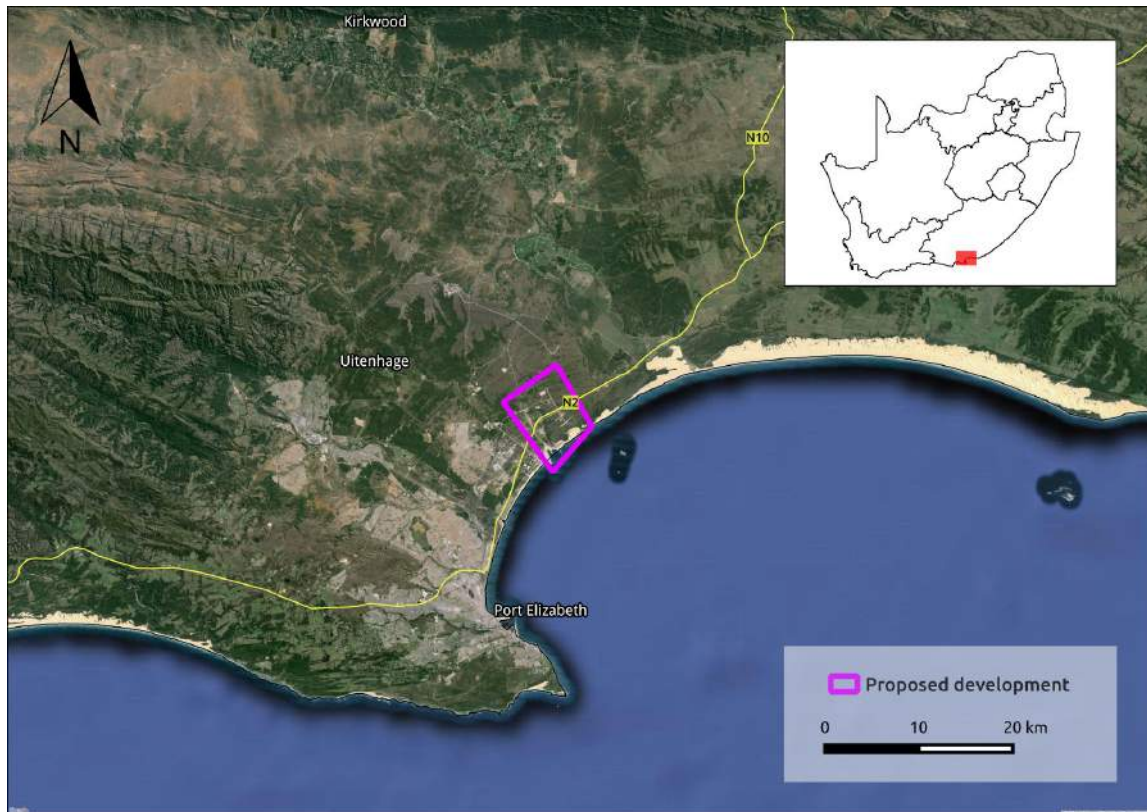
CTS Reference Number:	CTS15_036	
Client:	EOH Coastal & Environmental Services	
Date:	11 November 2015	
Title:	Ngqura Port Power Barge	
Recommendation by CTS Heritage Specialists: (Type 1)	(1) The heritage resources in the area proposed for development are sufficiently recorded - There are no known sites which require mitigation or management plans. No Heritage Impact Assessment is recommended but monitoring by an archaeologist during vegetation clearing in areas indicated in red in Fig. 7 is recommended.	

Figure 1a. Satellite image with proposed development area indicated in the Eastern Cape.



1. Proposed Development Summary

Proposed power barge and associated infrastructure at Ngqura Port, Nelson Mandela Bay Metropolitan Municipality.

2. Application References

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

3. Property Information

Farm Name and Number	The Aloes 220, Limehurst 221, Brak River SW 224, Swarte Koppen 302, Coega River Mouth 303, Hougham Park 304, Neptune 580
Local Municipality	Nelson Mandela Bay Metropolitan Municipality
District Municipality	Nelson Mandela Bay Metro
Previous Magisterial District	Port Elizabeth
Province	Eastern Cape
Current Use	Industrial
Current Zoning	Industrial
Total Extent	About 55km ²

4. Nature of the Proposed Development

Surface area to be affected/destroyed	About 41ha and 8km linear development
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Depth of excavation (m)	NA
Height of development (m)	NA
Expected years of operation before decommission	NA

5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	X
Triggers: Section 38(1) of the National Heritage Resources Act	
1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	X
2. Construction of a bridge or similar structure exceeding 50m in length.	
3. Any development or activity that will change the character of a site-	
a) exceeding 5 000m ² in extent	X
b) involving three or more existing erven or subdivisions thereof	
c) involving three or more erven or divisions thereof which have been consolidated within the past five years	
4. Rezoning of a site exceeding 10 000m ²	
5. Other (state):	

6. Additional Infrastructure Required for this Development

NA

7. Mapping

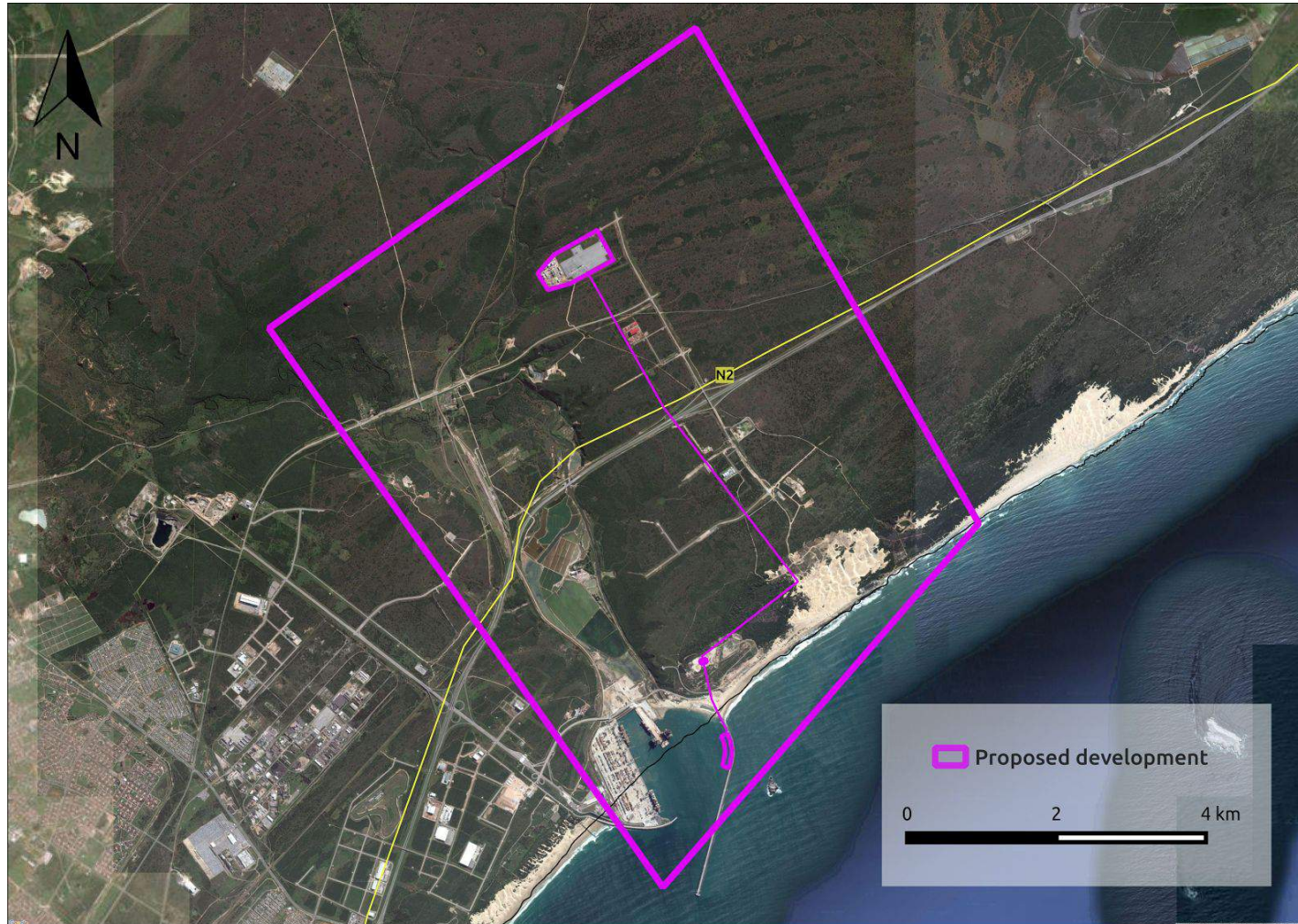
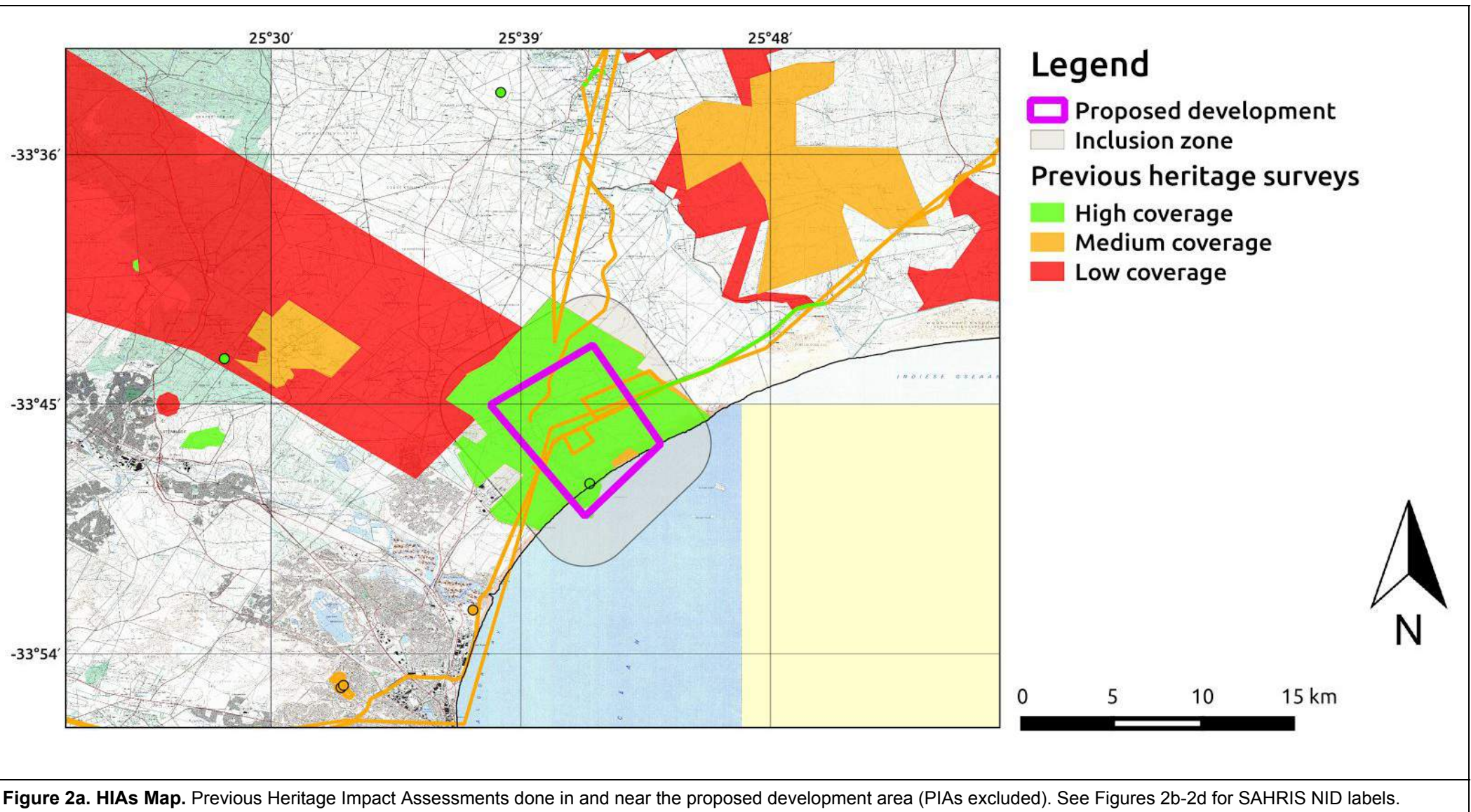


Figure 1b. Overview Map. Satellite image with proposed development indicated.





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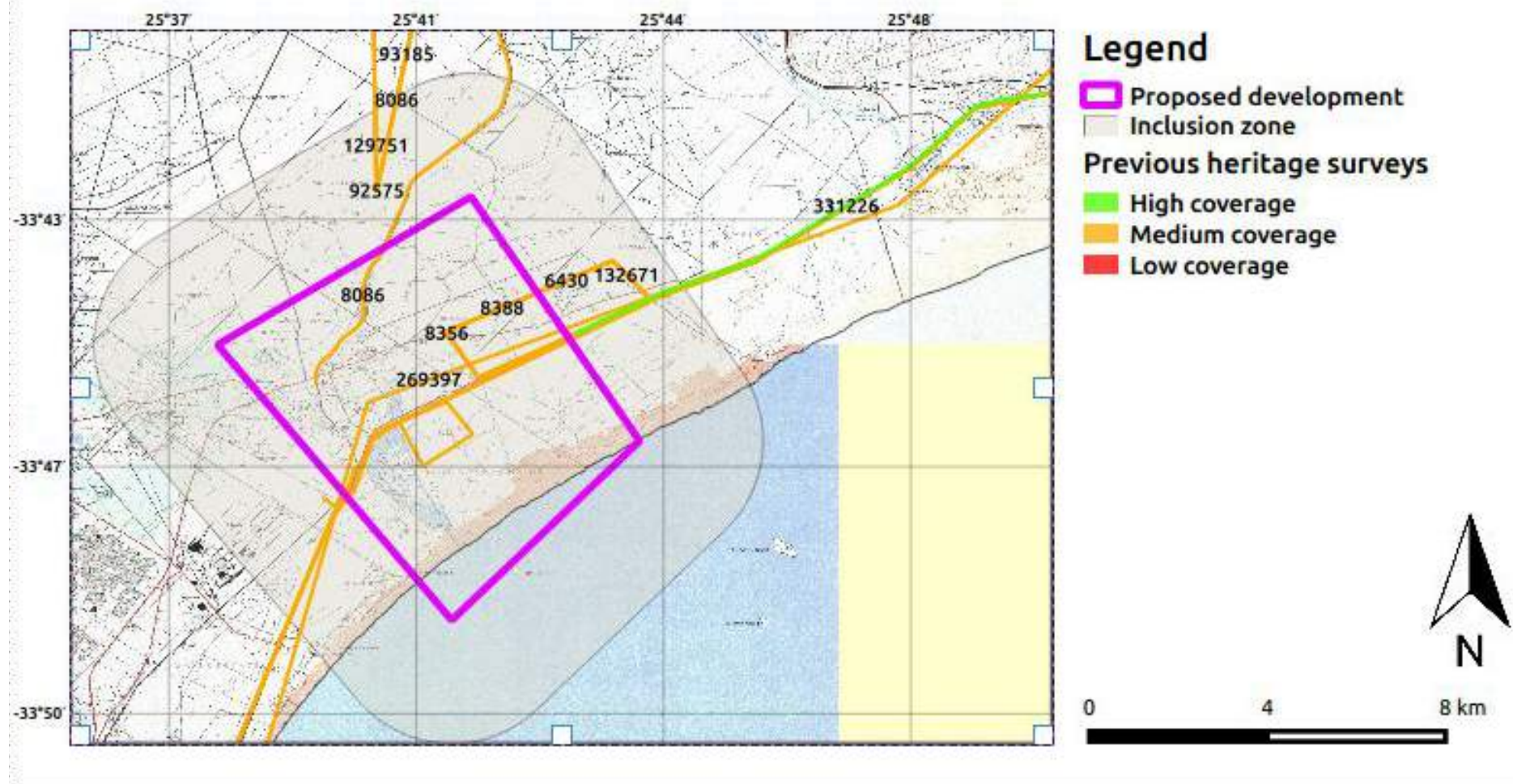
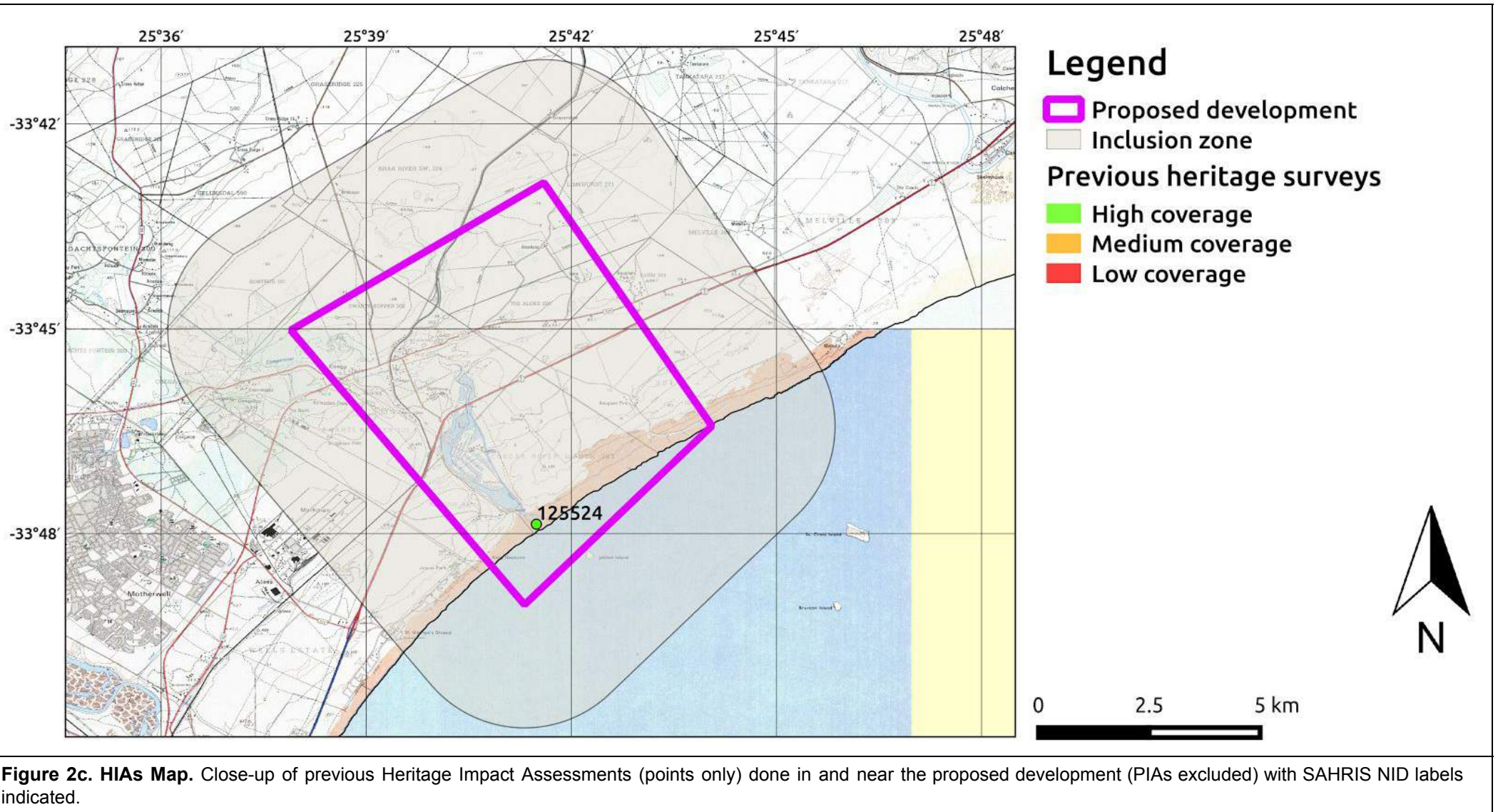


Figure 2b. HIAs Map. Previous Heritage Impact Assessments (lines only) done in and near the proposed development (PIAs excluded) with SAHRIS NID labels indicated.

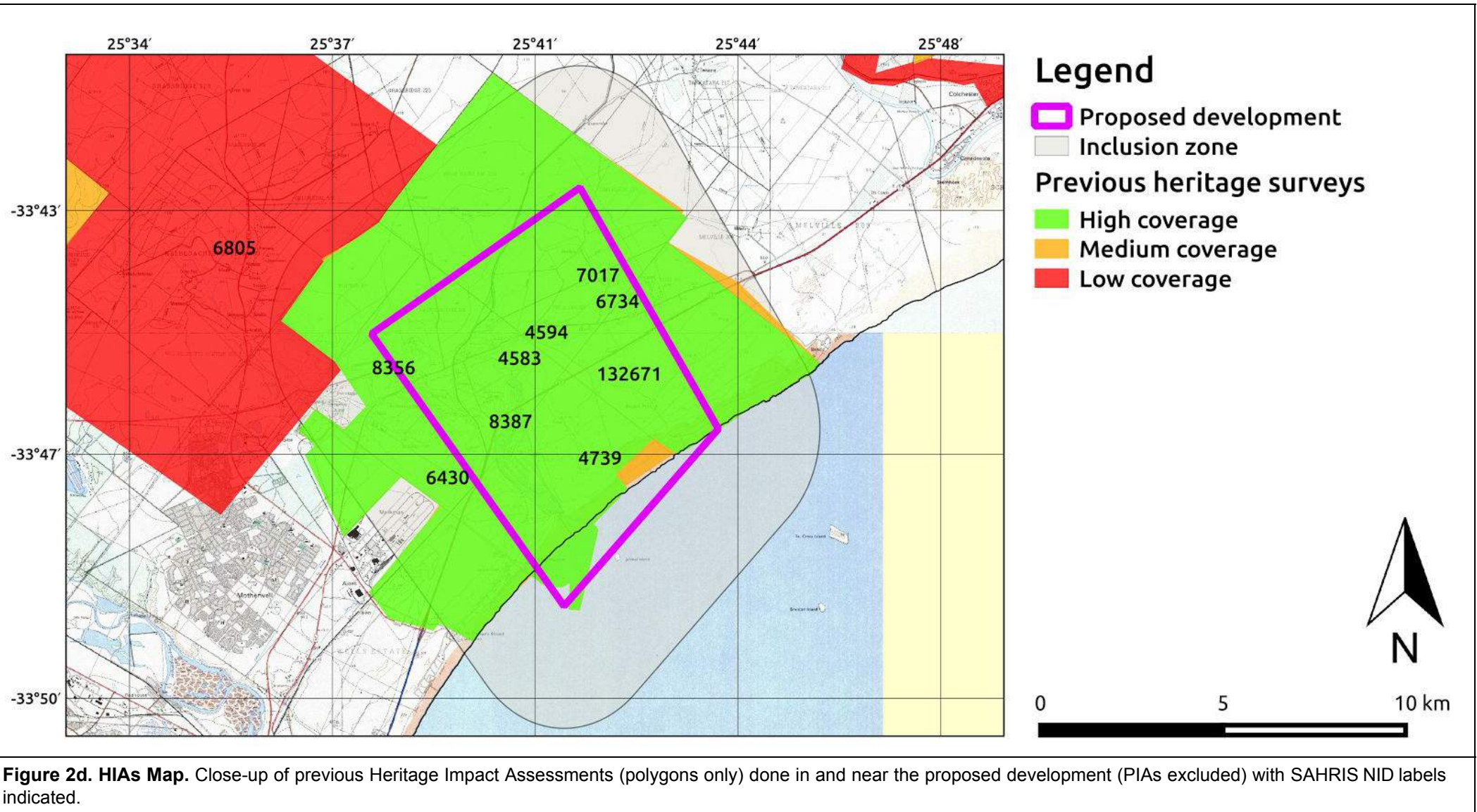


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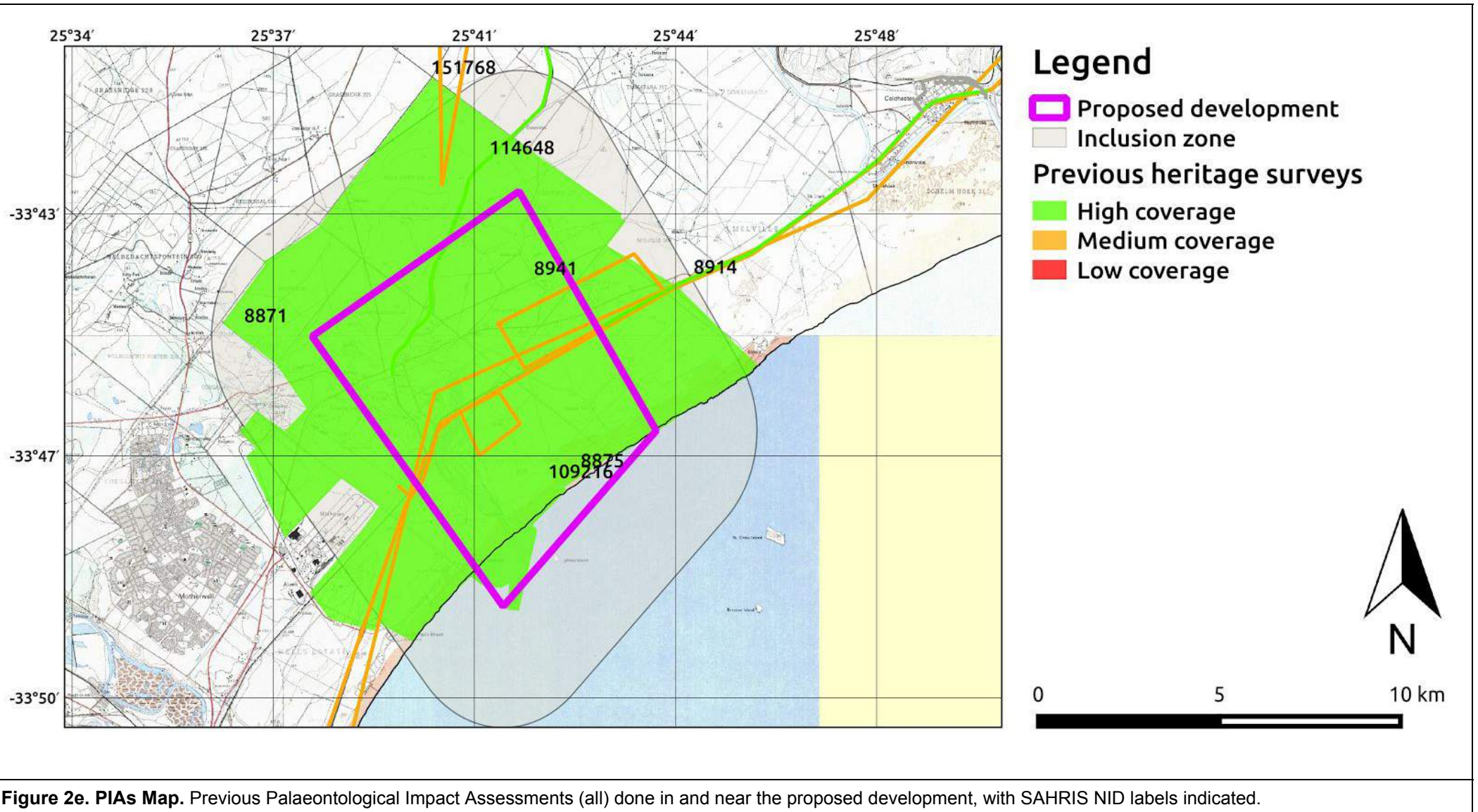
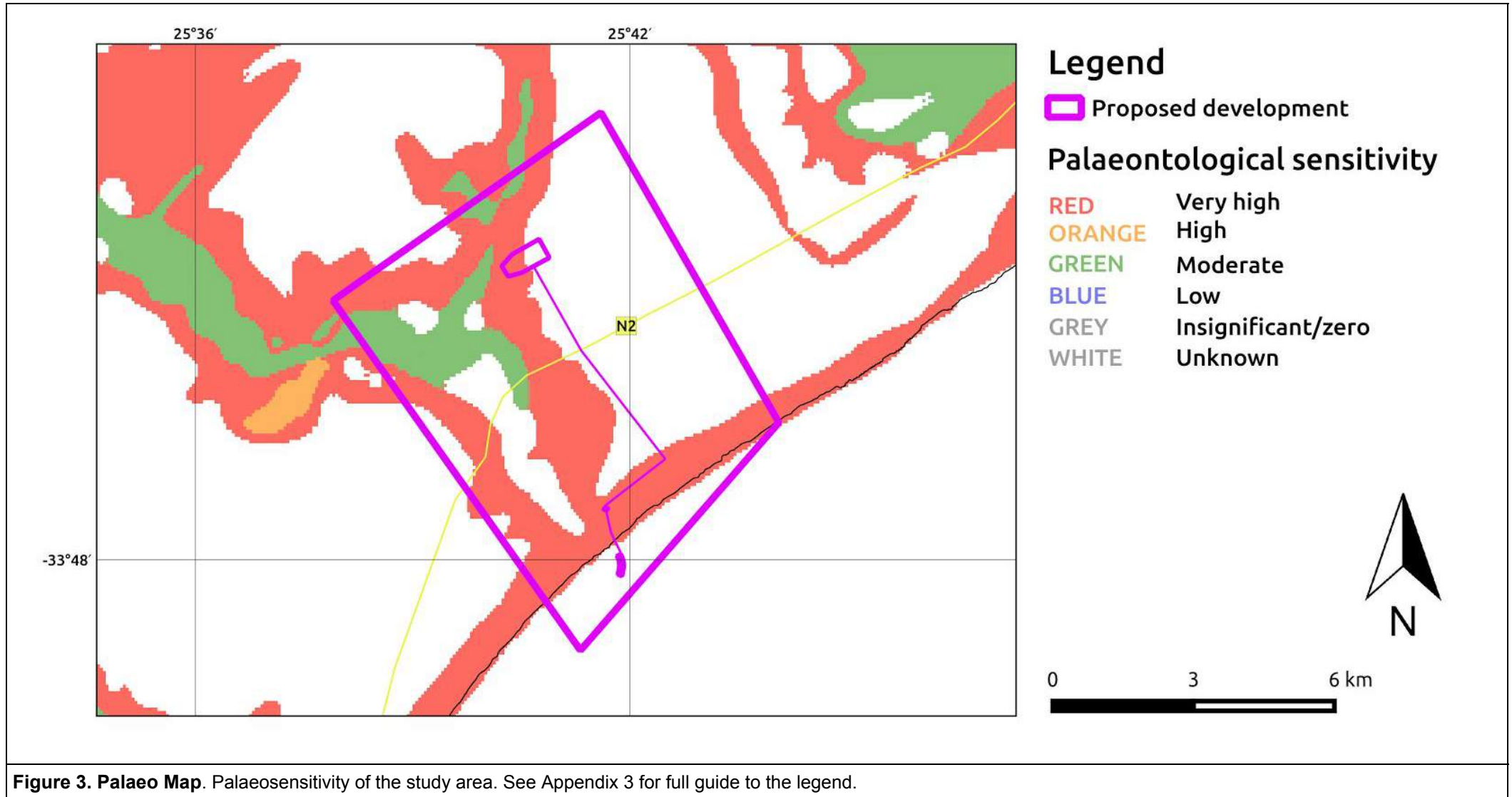


Figure 2e. PIAs Map. Previous Palaeontological Impact Assessments (all) done in and near the proposed development, with SAHRIS NID labels indicated.

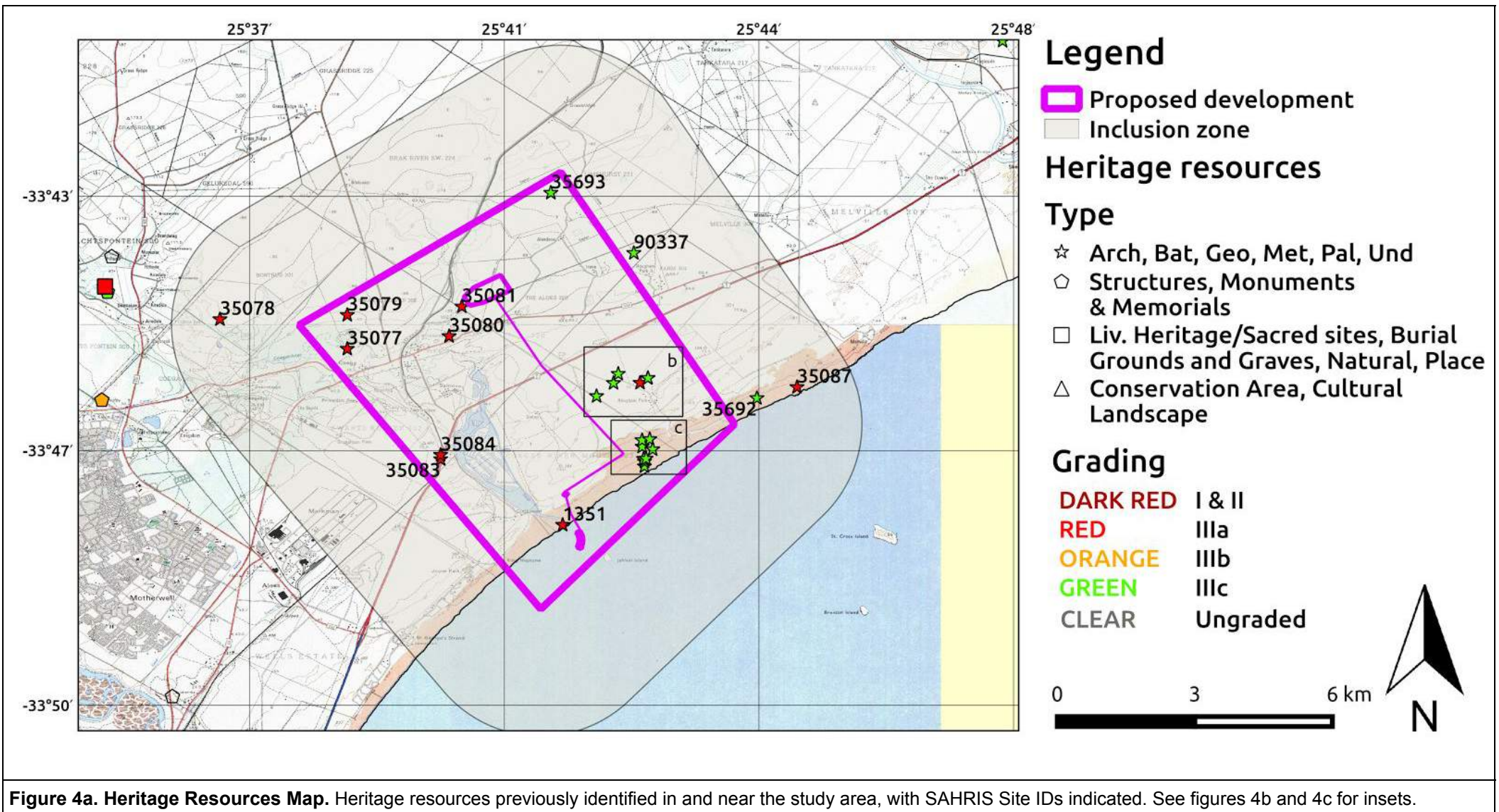


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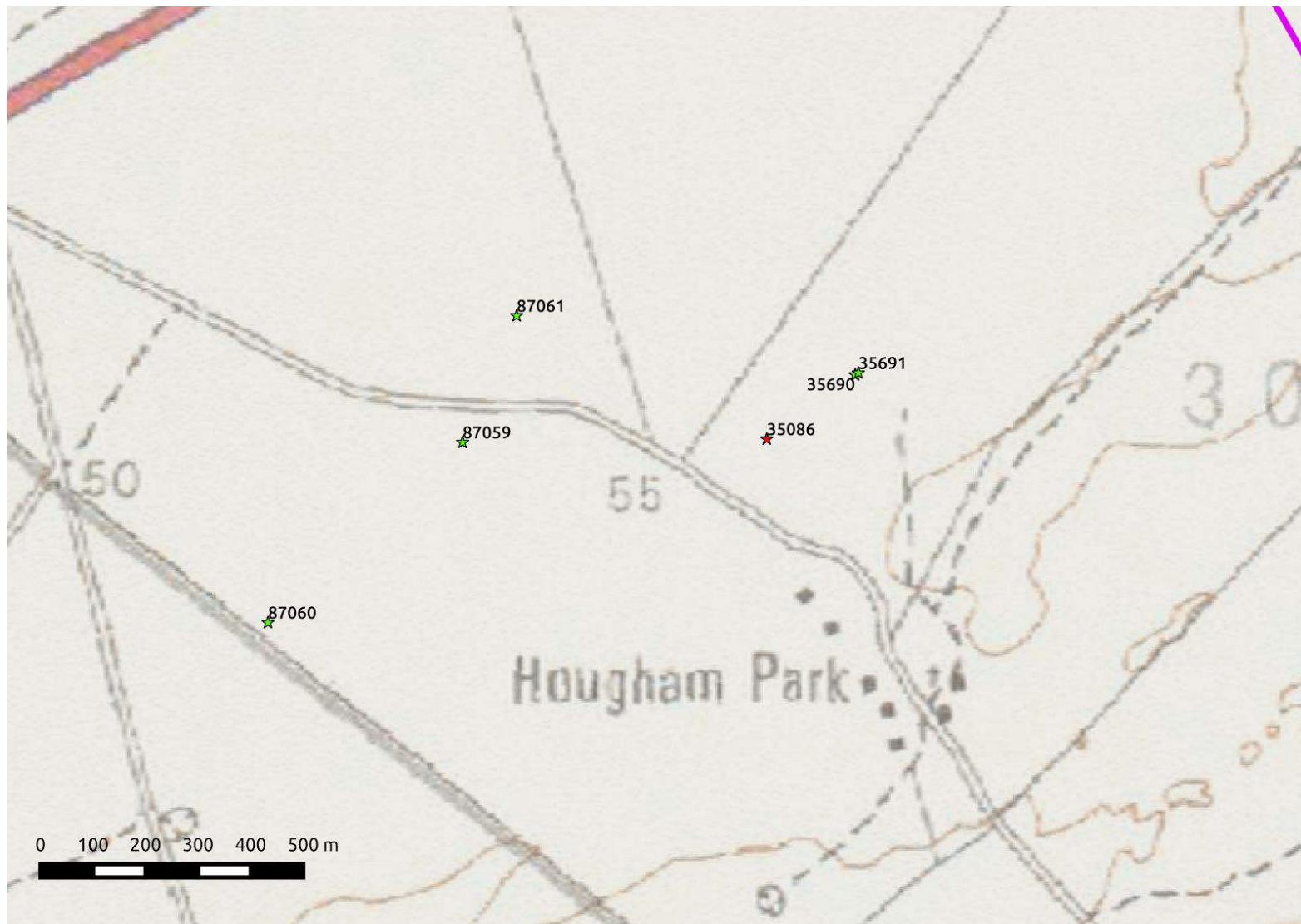


Figure 4b. Inset b sites.



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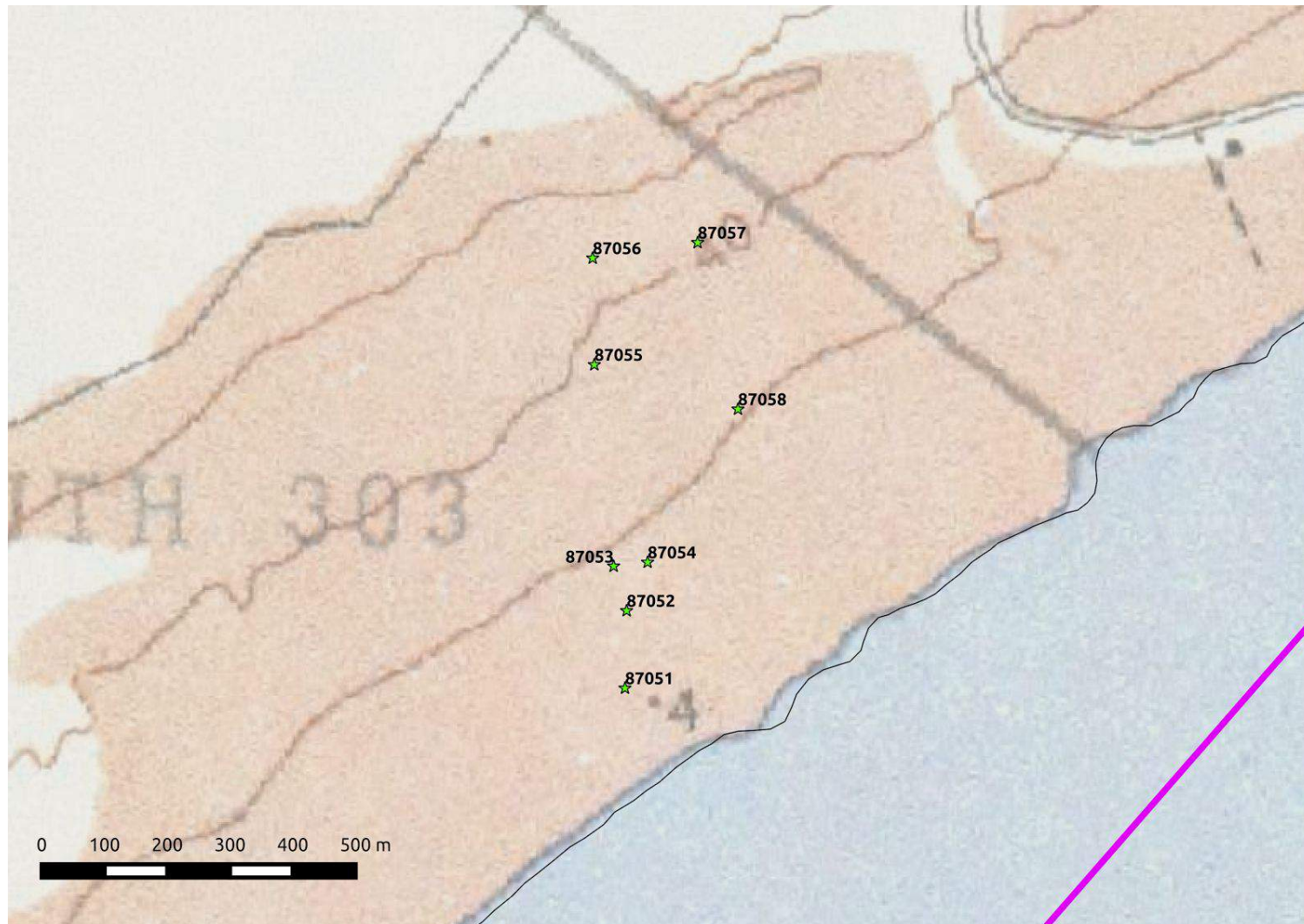


Figure 4c. Inset c sites.



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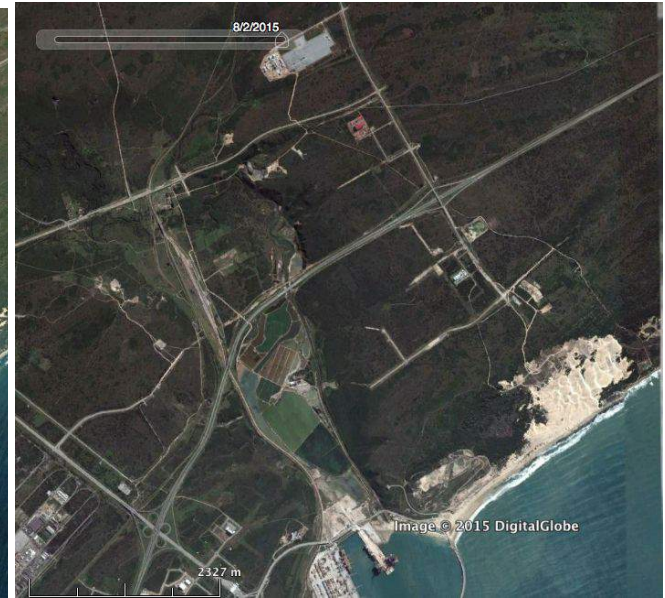
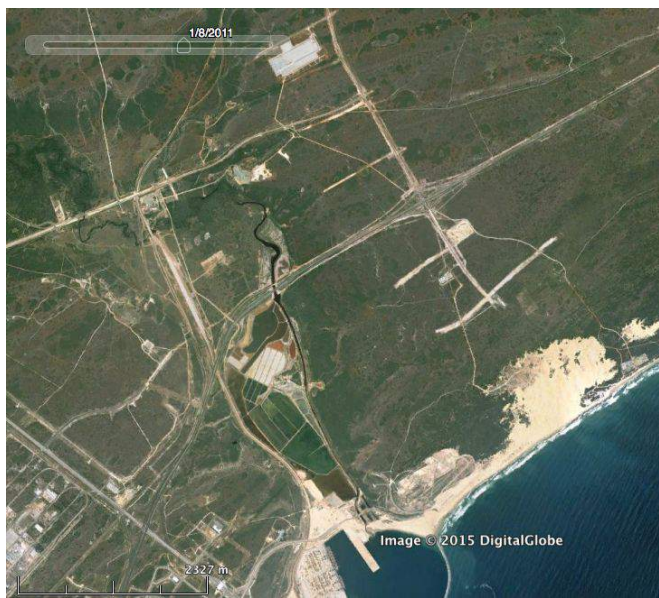
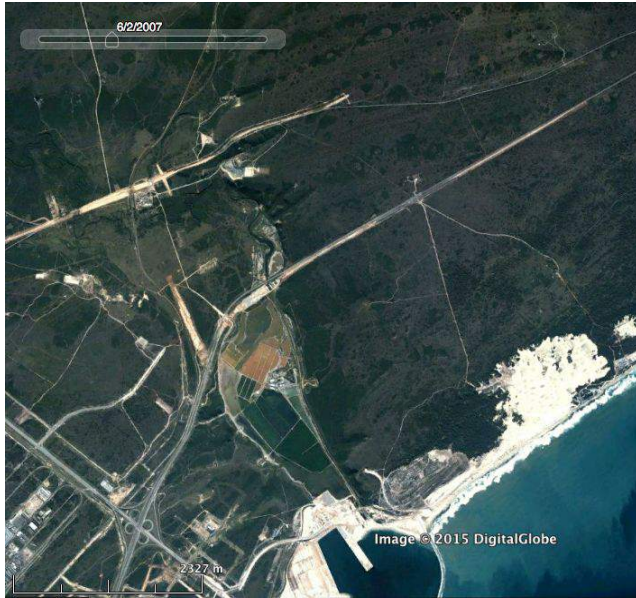


Fig. 5. From left to right: image of the area assessed in this screener in 2007, 2011 and 2015. No major developments occurred in the area between 2007 and 2010 before the Heritage Impact Assessment was undertaken. However, the power station was constructed between 2010 and 2015.



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Fig. 6. Aerial map of the location of the Coega Industrial Development Zones. The red lines mark the approximate size of the different zones (from Binneman 2010).

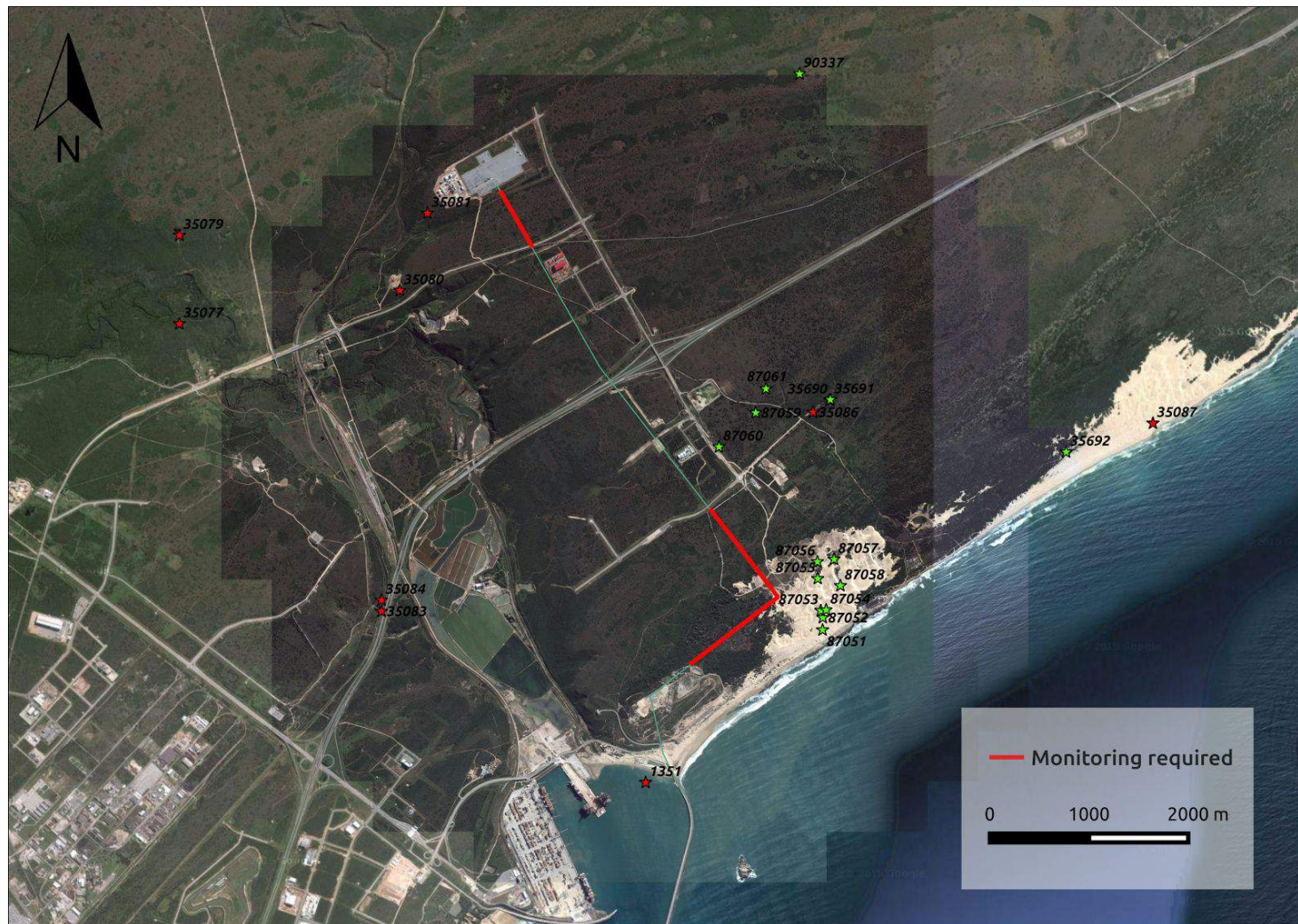


Fig. 7. Sections of the proposed power line where monitoring by an archaeologist is recommended during vegetation clearing.

8. Heritage statement and character of the area

EOH Coastal & Environmental Services is undertaking the Environmental Impact Assessment process for the establishment of a power barge within the Port of Ngura in the Coega Industrial Development Zone, Nelson Mandela Bay Metropolitan Municipality.

The project will entail the construction of a power barge within the port and an above ground power line which will connect the power barge to an existing substation. The infrastructure will follow an existing track until it reaches the coastline in zone 8 of the Port of Ngqura.

CTS assessed the proposed development area within an inclusion zone of 3km. A total of 21 Heritage Impact Assessments (HIAs) and five Palaeontological Impact Assessments (PIAs) have been previously undertaken within the inclusion zone. During these previous assessments, 26 sites had been identified. A comprehensive HIA for the entire Coega IDZ which covered archaeology, built environment, burial grounds and graves and palaeontological heritage resources was undertaken in 2010. The Heritage Management Plan deriving from the HIA had never been completed, however, clear recommendations by the heritage authority (SAHRA at the time) were stipulated for each identified site and for each area within the Coega IDZ.

The coastline within the Coega IDZ is very sensitive. The dune system has several Later Stone Age sites and their concentration is normally high up to about 1km from the coastline. This is evident in the number of sites identified within the exposed dune system represented in inset c (sites 87051 to 87058). These sites are mostly artefact scatters of low archaeological significance and they will not be affected by the proposed development.

The proposed power line is underlain by surface deposits of the Bluewater Bay Formation. Although this is indicated as being of unknown fossil sensitivity in the SAHRA palaeosensitivity map, a Palaeontological Impact Assessment for the Coega IDZ by Almond (2010) found that this formation is largely unfossiliferous and has only provided sparse fossils of freshwater mussels and land snails. The section of the proposed power line along the coastline is underlain by modern aeolian calcareous sand of the Schelm Hoek Formation. Although this is indicated as being of very high sensitivity in the SAHRA palaeosensitivity map, Almond also found that *this formation generally contains only a sparse fossil to subfossil biota* in this area (Almond 2010). **Given the nature of the development and the low sensitivity of the formations underlying it, it is recommended that a Palaeontological Impact Assessment is not undertaken.**

The area has been significantly transformed (Fig. 5) since the HIA was conducted in 2010. This is due to the industrial nature of developments within this area. The proposed power barge and associated power line are located within Zones 6, 7, 8, 13 and 14 of the Coega IDZ (Fig. 6). The original HIA did not include zone 8, however during previous consultation with Dr Binneman for a proposed development in the port of Ngqura, he explained that a survey would not be necessary because the area had already been heavily disturbed. **It is recommended that monitoring by an archaeologist during vegetation clearing is undertaken only in the undisturbed areas indicated in red in Fig. 7.**

It is expected that the proposed development will not impact on the County of Pembroke shipwreck located within the port.

APPENDIX 1 - Site Lists

List of sites within 3km inclusion zone and outside proposed development area

Site ID	Site no	Full Site Name	Site Type	Grading
35078	COE009	Coega 009	Palaeontological	Grade IIIa
35087	COE016	Coega 016	Palaeontological	Grade IIIa
90337	COEGA028	Coega 028	Artefacts	Grade IIIc
35692	COEGA9	Coega 9	Artefacts	Grade IIIc

List of sites intersecting proposed development area

Site id	Site no	Full site name	Site type	Grading	Latitude	Longitude
35077	COE008	Coega 008	Palaeontological	Grade IIIa	-33.756	25.643
35079	COE010	Coega 010	Palaeontological	Grade IIIa	-33.748	25.643
35080	COE011	Coega 011	Palaeontological	Grade IIIa	-33.753	25.667
35081	COE012	Coega 12	Palaeontological	Grade IIIa	-33.746	25.67
35083	COE013	Coega 013	Palaeontological	Grade IIIa	-33.782	25.665
35084	COE014	Coega 14	Palaeontological	Grade IIIa	-33.781	25.665
35086	COE015	Coega 015	Palaeontological	Grade IIIa	-33.764	25.712
1351	SHIPWRECKID1141	County of Pembroke	Shipwreck	Grade IIIa	-33.797488	25.69376
87051	COE017	Coega 017	Artefacts	Grade IIIc	-33.783694	25.713028
87052	COE018	Coega 018	Artefacts	Grade IIIc	-33.782583	25.713056
87053	COE019	Coega 019	Artefacts	Grade IIIc	-33.781944	25.712833
87054	COE020	Coega 020	Artefacts, Shell Midden	Grade IIIc	-33.781889	25.713417



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87055	COE021	Coega 021	Archaeological	Grade IIIc	-33.779056	25.7125
87056	COE022	Coega 022	Artefacts	Grade IIIc	-33.777528	25.712472
87057	COE023	Coega 023	Artefacts, Settlement	Grade IIIc	-33.777306	25.714278
87058	COE024	Coega 024	Artefacts, Shell Midden, Palaeontological	Grade IIIc	-33.779694	25.714972
87059	COE025	Coega 025	Artefacts	Grade IIIc	-33.764056	25.70575
87060	COE026	Coega 026	Artefacts	Grade IIIc	-33.767139	25.70175
87061	COE027	Coega 027	Artefacts	Grade IIIc	-33.761889	25.706861
35690	COEGA7	Coega 7	Artefacts	Grade IIIc	-33.7629	25.713817
35691	COEGA8	Coega 8	Artefacts	Grade IIIc	-33.762867	25.713883
35693	COEGA10	Coega 10	Artefacts	Grade IIIc	-33.7192	25.690967

APPENDIX 2 - Reference List

Nid	Author/s	Date	Report Type	Title
125524	Vanessa Maitland	1/5/2009	AIA	County of Pembroke Shipwreck Report for Transnet, Port of Ngqura, Eastern Cape Shipwreck Removal
8086	Johan Nel	14/11/2008	AIA	Final Report Heritage Resources Scoping Survey & Preliminary Assessment Transnet Freight Line EIA, Eastern Cape and Northern Cape
6430	Johan Binneman	18/05/2010	AIA	A Phase 1 Archaeological Impact Assessment Of The Greater Coega Industrial Development Zone (idz), Near Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province
8356	Ashed Ashwell	17/06/2010	HIA	Heritage Management Plan Coega IDZ Draft, Work in progress
8388	Jenny Bennie	10/9/2010	HIA	Heritage Impact Assessment (Historical component) Coega Ridge Housing Development
92575	Elize Becker	10/10/2012	HIA	Phase 1 Heritage Impact Assessment Kimberley to De Aar
93185	Elize Becker	1/11/2012	HIA	Phase 1 Heritage Impact Assessment Hotazel to Kimberley and De Aar to Port Ngqura
129751	Elize Becker	20/02/2013	HIA	Phase 1 Heritage Impact Assessment Hotazel to Kimberley and De Aar to Port of Ngqura
132671	Jenny Bennie	1/5/2010	HIA	Historical Assessment - (Historical component relating to the built environment and graves) Coega Industrial Development Zone near Port Elizabeth, Eastern Cape Province
269397	Celeste Booth	2/3/2015	AIA	FibreCo Repeater Sites Routes 3 and 4_Heritage_2015 AIA report
331226	Johan Binneman, Celeste Booth	1/1/2010	AIA	Upgrading Of The N2 Highway Between Coega And Colchester As Well As The Construction Of The New Sundays River Bridge, And Four Borrow Pits, Nelson Mandela Metropolitan Municipality, Port Elizabeth , Eastern Cape Province
4583	Johan Binneman	2/4/2007	HIA	Letter of Recommendation (With Conditions) for the Exemption of a Full Phase 1 Archaeological Heritage Impact Assessment for the Proposed Extensions of the Container Berth and Construction of An Administration Craft Basin at the Port of Ngqura (Coega)
4594	Lita Webley	1/10/2007	HIA	Phase 1 Heritage Impact Assessment of the Proposed Asia Steel Recycling Facility at the Coega Industrial Development Area, Port Elizabeth



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6430	Johan Binneman	18/05/2010	AIA	A Phase 1 Archaeological Impact Assessment Of The Greater Coega Industrial Development Zone (idz), Near Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province
6734	Jonathan Kaplan	1/10/2008	AIA	Proposed Exxaro Alloystream Manganese Project in the Coega Industrial Development Zone: Heritage Impact Assessment
6805	Len van Schalkwyk, Elizabeth Wahl	1/9/2007	HIA	Heritage Impact Assessment of Gamma Grassridge Power Line Corridors and Substation, Eastern, Western and Northern Cape Provinces, South Africa
7017	Jonathan Kaplan	1/9/2008	AIA	Phase 1 Archaeological Impact Assessment: The Proposed Kalagadi Manganese Smelter in the Coega Industrial Development Zone, Port Elizabeth, Eastern Cape Province
132671	Jenny Bennie	1/5/2010	HIA	Historical Assessment - (Historical component relating to the built environment and graves) Coega Industrial Development Zone near Port Elizabeth, Eastern Cape Province
4739	Lita Webley	1/5/2006	HIA	Phase 1 Heritage Impact Assessment of the Proposed Biomass Plant in Zone 3, Coega, Port Elizabeth
8387	Lita Webley, Robert Gess	1/3/2007	AIA	Phase 1 Heritage Impact Assessment: Straits Chemicals Proposed Chlor-Alkali & Salt Plant, Coega, Eastern Cape
8356	Ashed Ashwell	17/06/2010	HIA	Heritage Management Plan Coega IDZ Draft, Work in progress
8914	Robert Gess	30/03/2011	PIA	Palaeontological heritage component of FibreCo Telecommunications, basic assessment for the proposed fibre optic data cable project: Route 5: PE to Durban
151768	John E Almond	1/11/2013	PIA	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
8871	Lita Webley, Robert Gess	1/3/2007	PIA	Palaeontological Heritage Report for proposed Chlor-Alkali and Salt Plant at Coega
8875	John E Almond	29/03/2010	PIA	Palaeontological Heritage Assessment of the Coega IDZ, Eastern Cape Province
8941	John E Almond	1/9/2008	PIA	Kalagadi Manganese Smelter, Coega IDZ, Eastern Cape Province: Desktop Palaeontological Assessment
109216	John E Almond	1/3/2010	PIA	Palaeontological Heritage Assessment Of The Coega Idz, Eastern Cape Province
114648	John E Almond	1/9/2012	PIA	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.

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
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
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 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.

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.**