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HERITAGE SCREENER

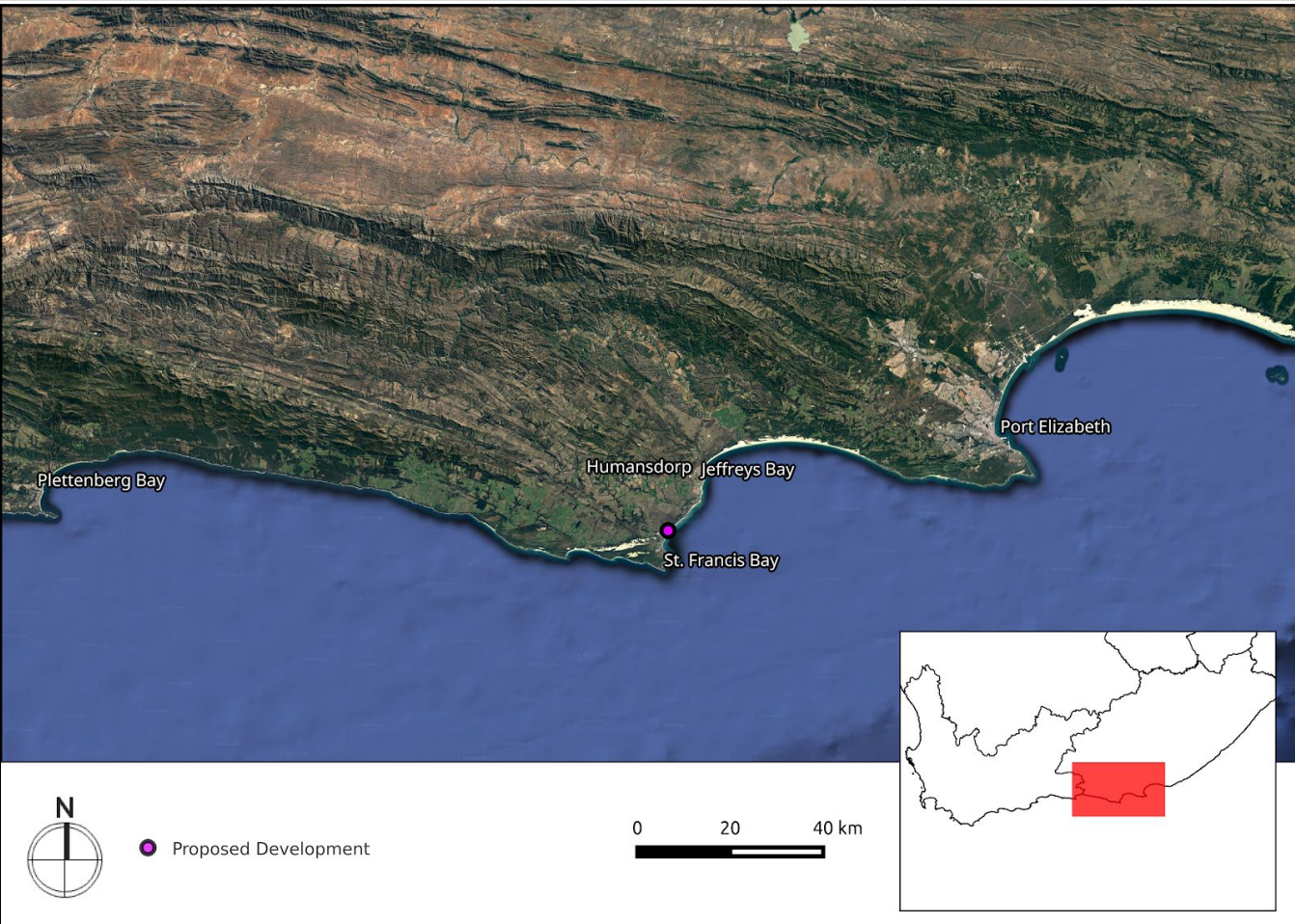
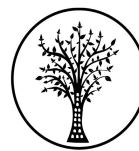
CTS Reference Number:	CTS19_176	
Client:	Lwandle Environmental Consulting	
Date:	November 2019	
Title:	INSTALLATION OF HF RADAR ON THE SOUTH COAST OF RSA: SITE 4, OSBOSCH	
Recommendation by CTS Heritage Specialists	RECOMMENDATION: Based on the information available for the area proposed for the proposed HF Radar Installation, as well as the limited and temporary nature and scale of the proposed development, it is very unlikely that the proposed development will impact on significant archaeological or palaeontological heritage. As such, it is recommended that no further heritage studies are required, and that this desktop assessment is sufficient for any process required in terms of section 38 of the National Heritage Resources Act (Act 25 of 1999).	

Figure 1a. Satellite map indicating the location of the proposed development in the Eastern Cape Province

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1. Proposed Development Summary

Lwandle Technologies (Pty) Ltd (Lwandle) in technical partnership with Actimar Operational Oceanography (Actimar) plan to provide near real time, remotely sensed, environmental data on sea surface current and wave conditions to the South African coastal and maritime sectors. This application is for the installation of temporary a temporary HF radar system that comprises of 4 transmitting antenna, 12 receiving antenna, a 3m container and a solar panel array for power. The antenna are connected by coaxial cable protected by LDPE. The cables are placed in shallow trenches and covered with material to prevent damage from farm vehicles and grazing animals. The precise location of individual components is to be confirmed with radar specialists on site and agreed with the landowner before installation.

2. Application References

Name of relevant heritage authority(s)	ECPHRA
Name of decision making authority(s)	Sarah Baartman District Municipality, Eastern Cape

3. Property Information

Latitude / Longitude	34°08'07.91"S, 24°50'44.47"E
Erf number / Farm number	Farm 14/701 Osbosch Farm
Local Municipality	Kouga
District Municipality	Sarah Baartman
Province	Eastern Cape
Current Use	Agricultural
Current Zoning	Agricultural
Total Extent	NA

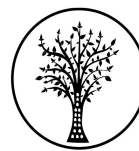
4. Nature of the Proposed Development

Total Surface Area of development	Approximately 1km
Depth of excavation (m)	Not exceeding 30cm deep and 20cm wide for cable laying to be recovered and reseeded.
Height of development (m)	4m

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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
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-
	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

This radar site will require:

- vehicle access for installation, monthly checking and then eventual uninstalling;
- a container either 2.4 m or 6 m long x 2.4 m wide x 2.4 m high, to house the computer for storing the data collected, and ~10 batteries for storing solar power
- ~60 m² of solar panels, to supply approximately 17.28 kWh/day of power
- electrical and antenna cables, in protective black plastic tubes laid on the ground surface, or buried if required for protection against trampling by cattle; radar signals transmitted at 5.25 MHz frequency which is an extremely low/ non-invasive electromagnetic force used by oceanographic research vessels;
- 4 transmission (TX) antennae, and 12 reception antennae (RX), with supporting poles, reaching 5.5 m high. This height is lower than a telephone transmission pole, and about half the height of the majority of wooden poles used for power transmission lines. For technical reasons the bases of the 12 RX antennae need to be at the same height off the ground and thus follow the topography, but for good transmission the tops of the 4 TX antennae need to be at the same elevation so their length would differ to compensate for any differences in ground level;
- the antennae will be placed approximately 28 m apart, and
- protective wooden fencing around antennae where necessary.

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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 (2019) indicating the proposed development area at closer range.

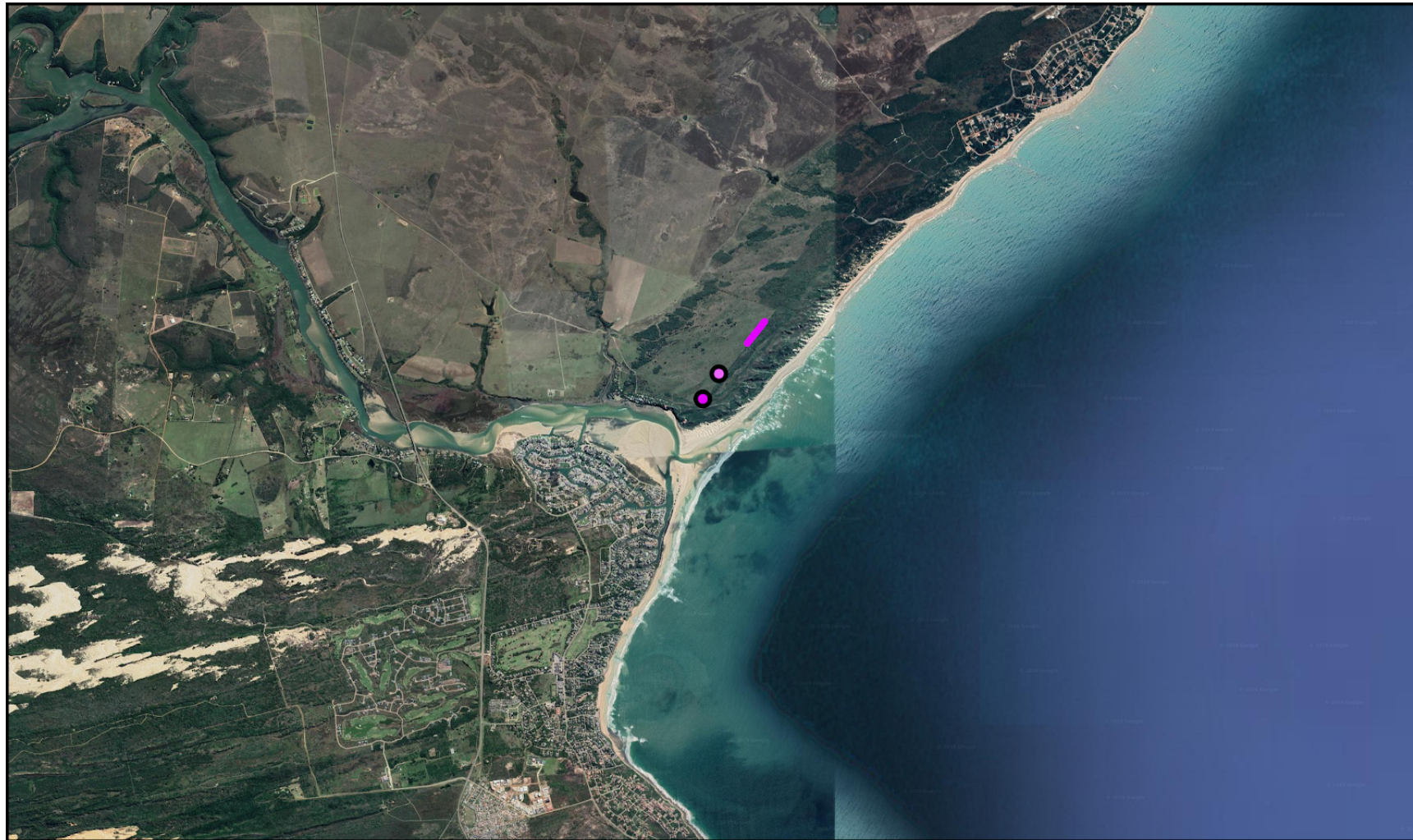
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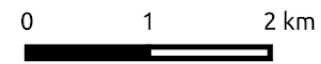
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- Proposed Development Tx
- Proposed Development Container
- Proposed Development Rx



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Figure 1c. Overview Map. Satellite image (2019) indicating the proposed development area at closer range.

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- Proposed Development Tx
- Proposed Development Container
- Proposed Development Rx

0 100 200 m



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Figure 1d. Overview Map. Satellite image (2019) indicating the proposed development area at closer range

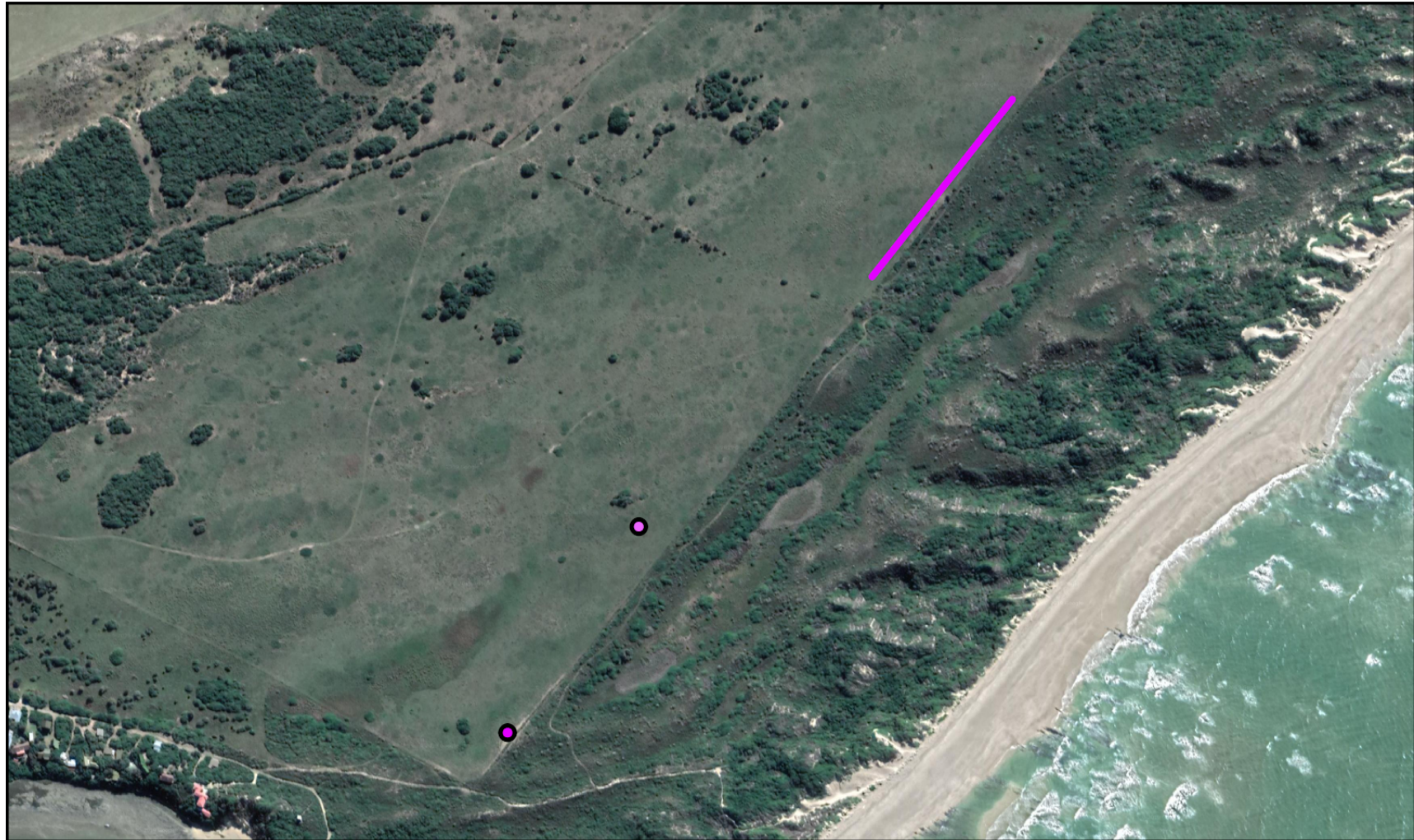
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- Proposed Development Tx
- Proposed Development Container
- Proposed Development Rx

0 100 200 m



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Figure 1e. Overview Map. Satellite image (2019) indicating the proposed development area at closer range

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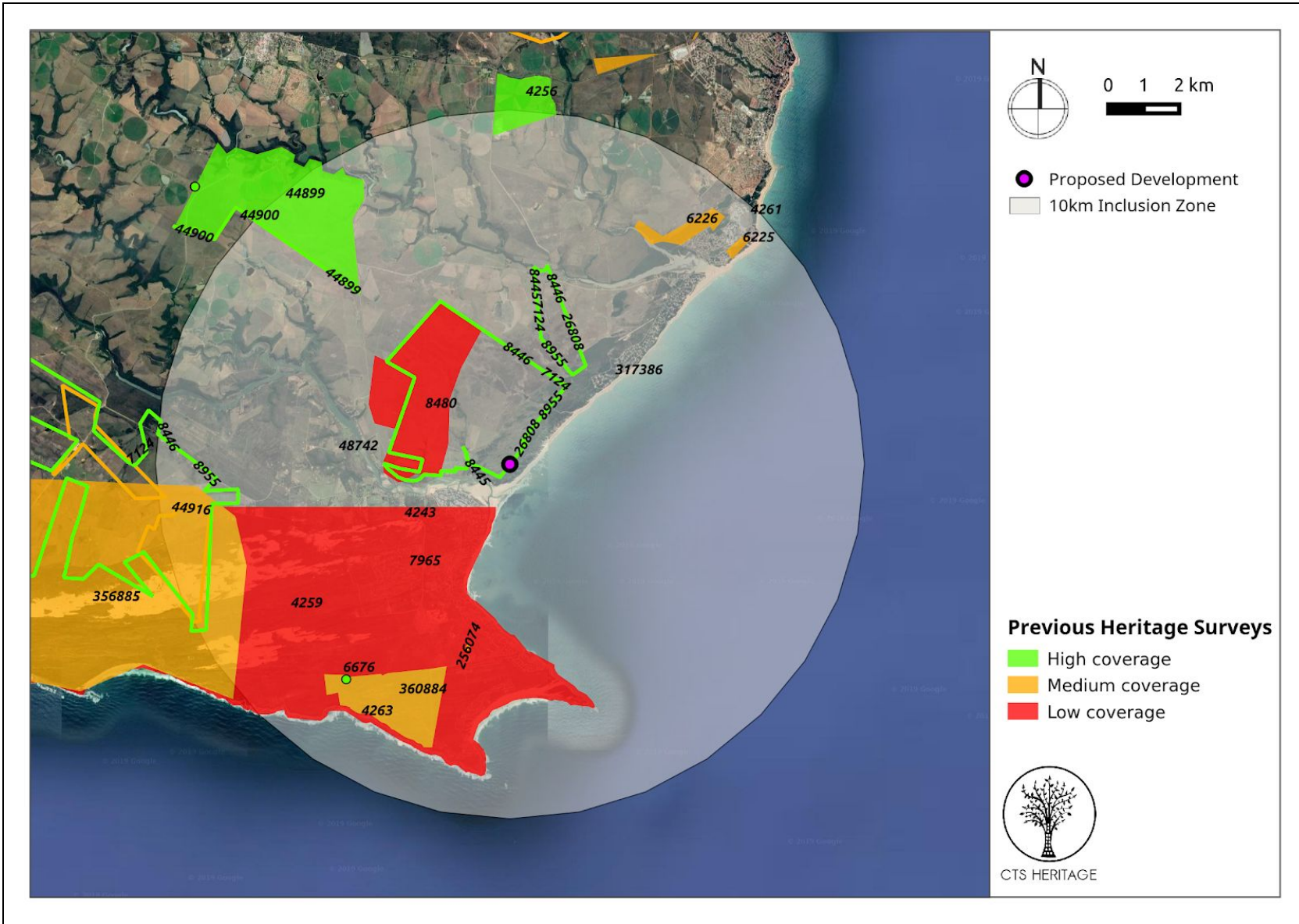


Figure 2. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 10km, with SAHRIS NIDS indicated. Please see Appendix 2 for full reference list.

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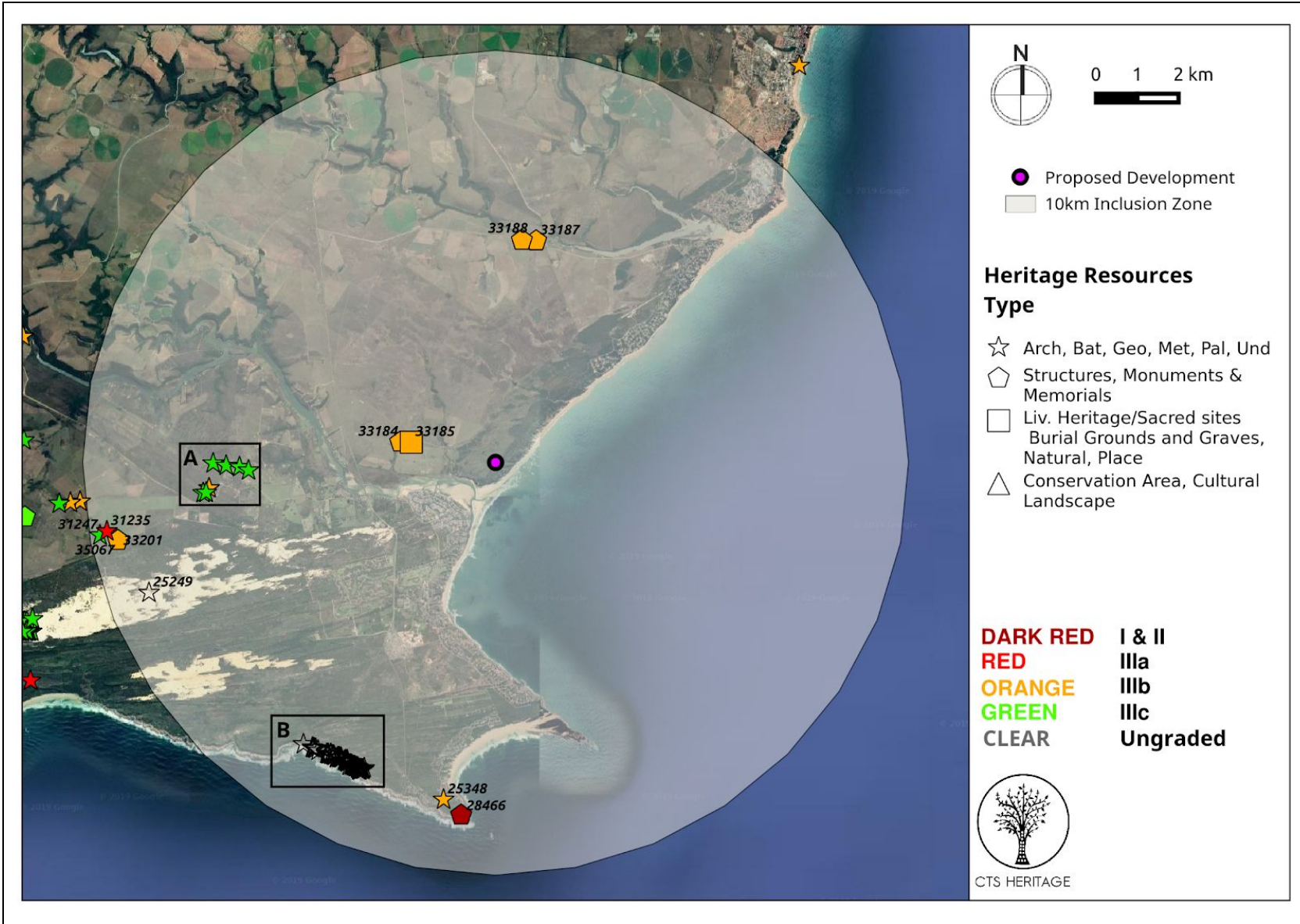


Figure 3a. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.

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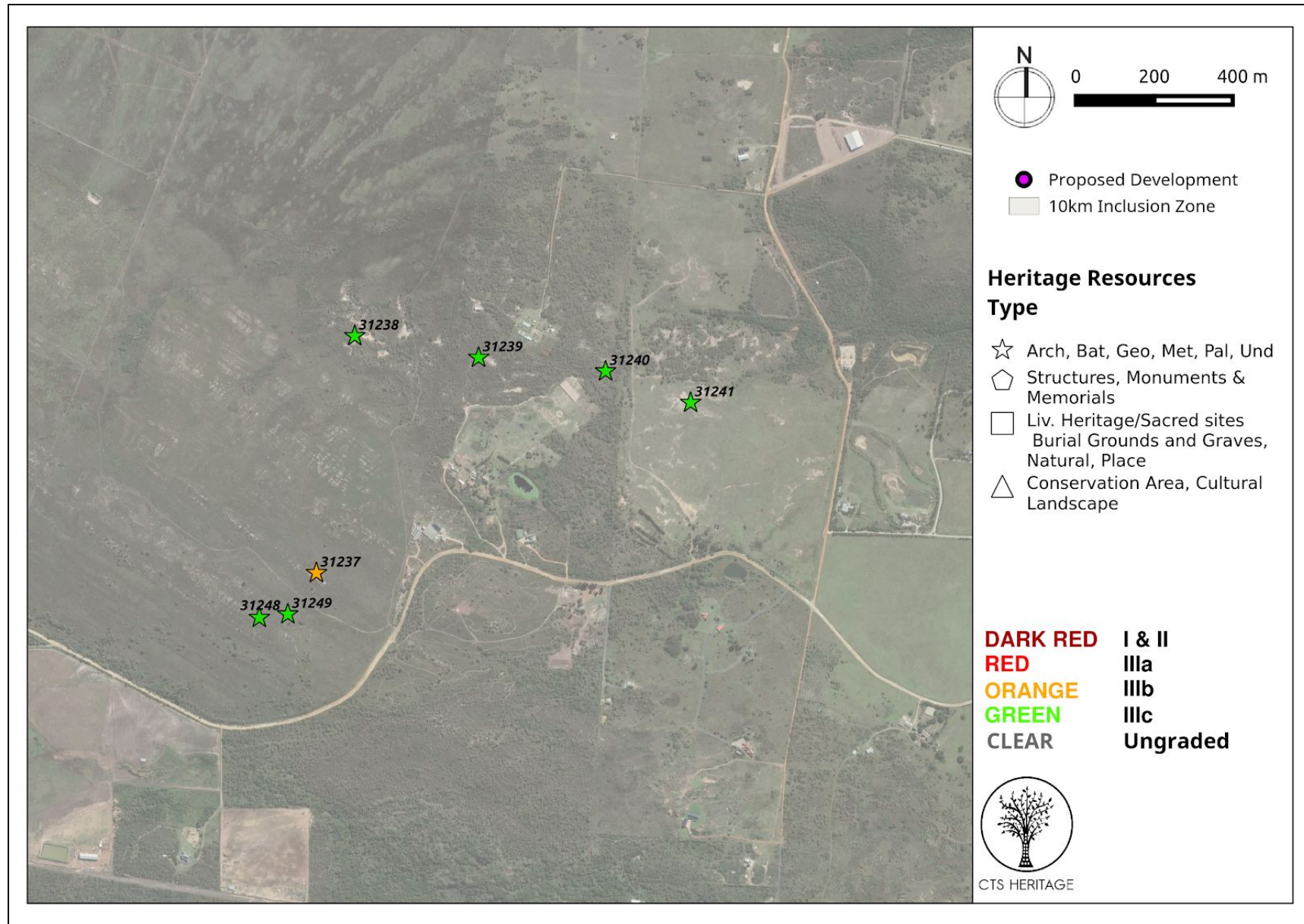


Figure 3b. Heritage Resources Map. Heritage Resources Inset A

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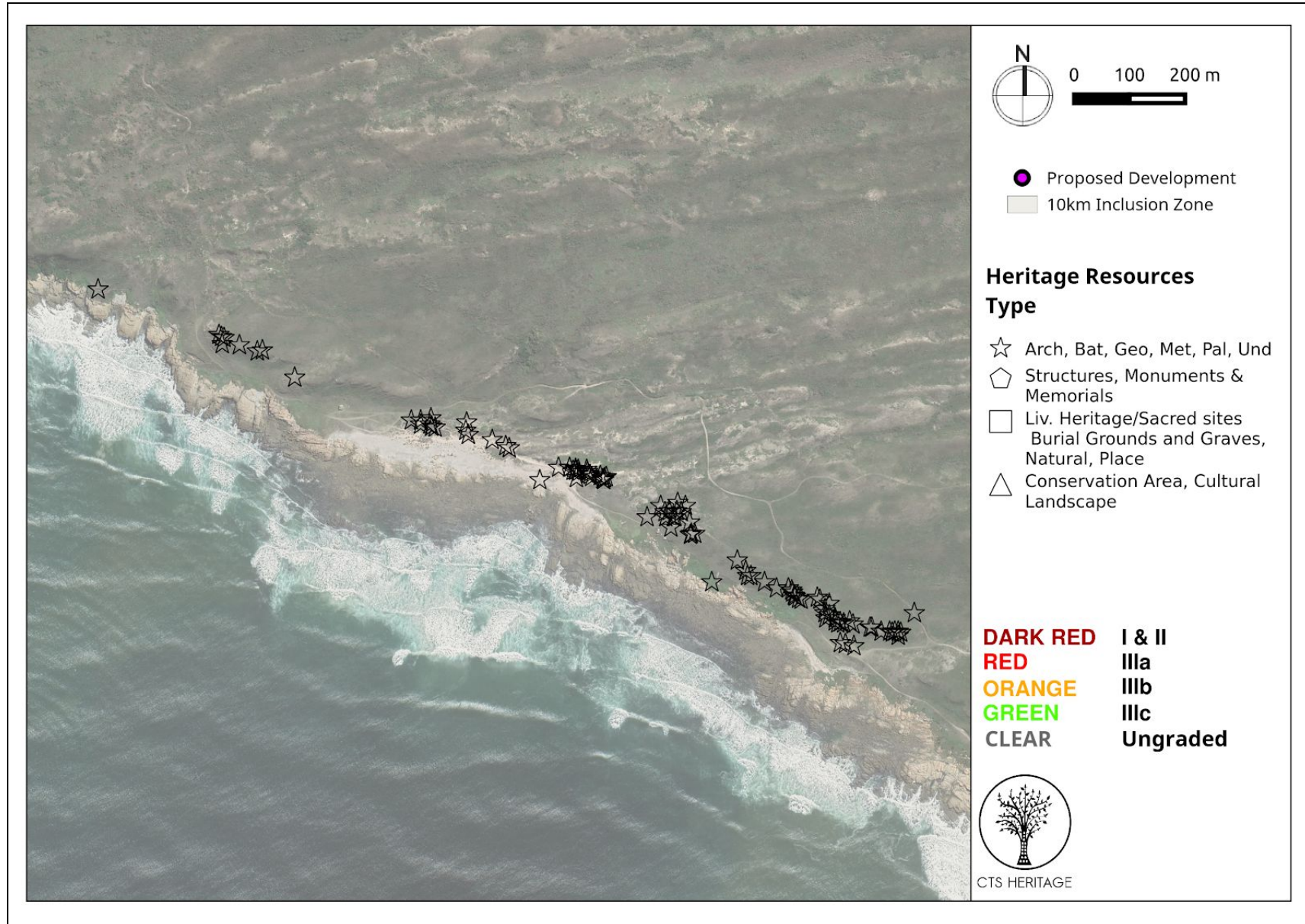


Figure 3c. Heritage Resources Map. Heritage Resources Inset B

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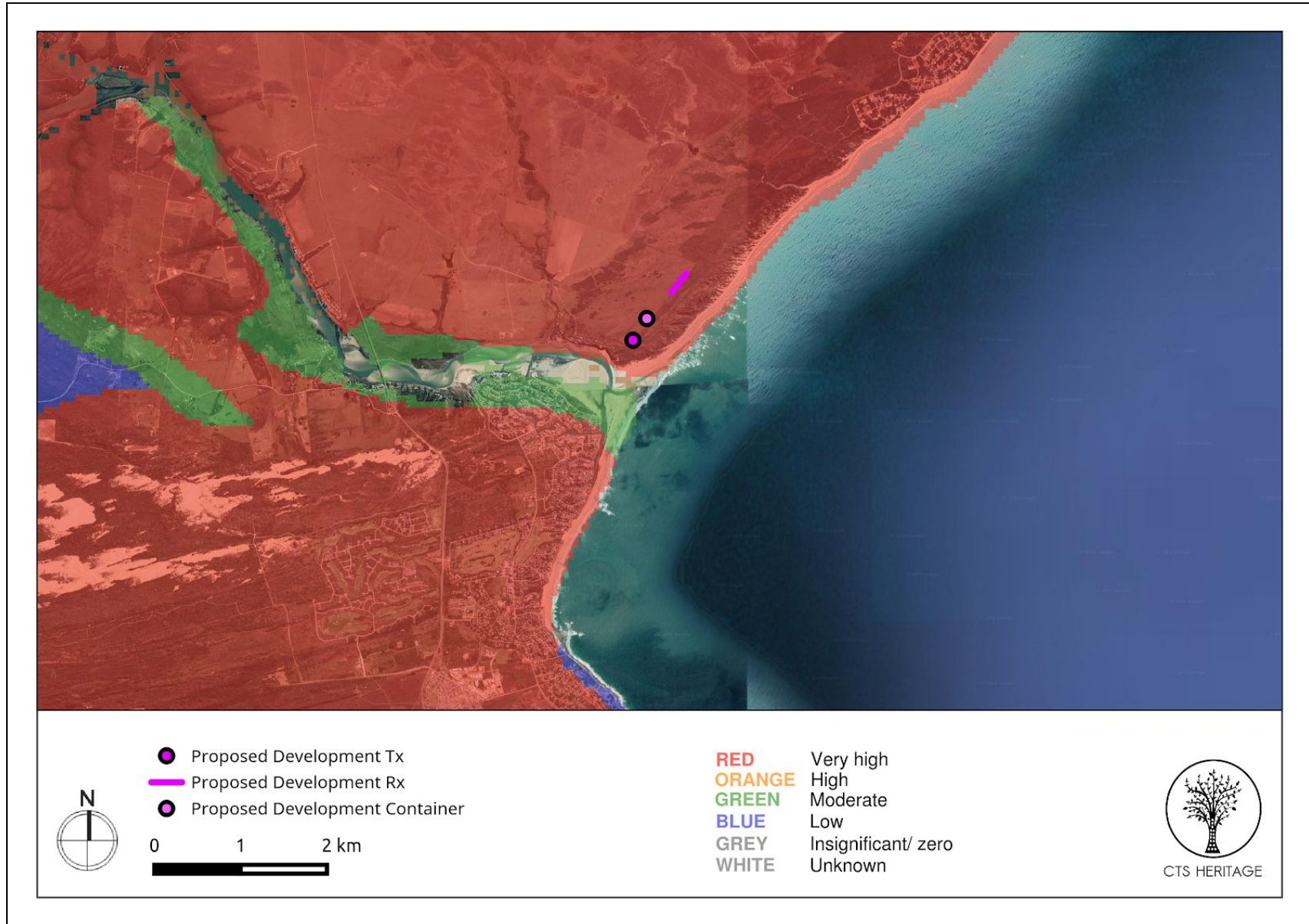


Figure 4. Palaeosensitivity Map. Indicating Moderate and Very High fossil sensitivity underlying the study area. Please See Appendix 3 for full guide to the legend.

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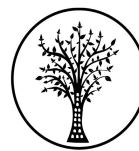


Figure 5. Map of known Palaeontological Sites. Extracted from the PalaeoBiology Database (PBDB - <https://paleobiodb.org/#/>) More detail in Appendix 1

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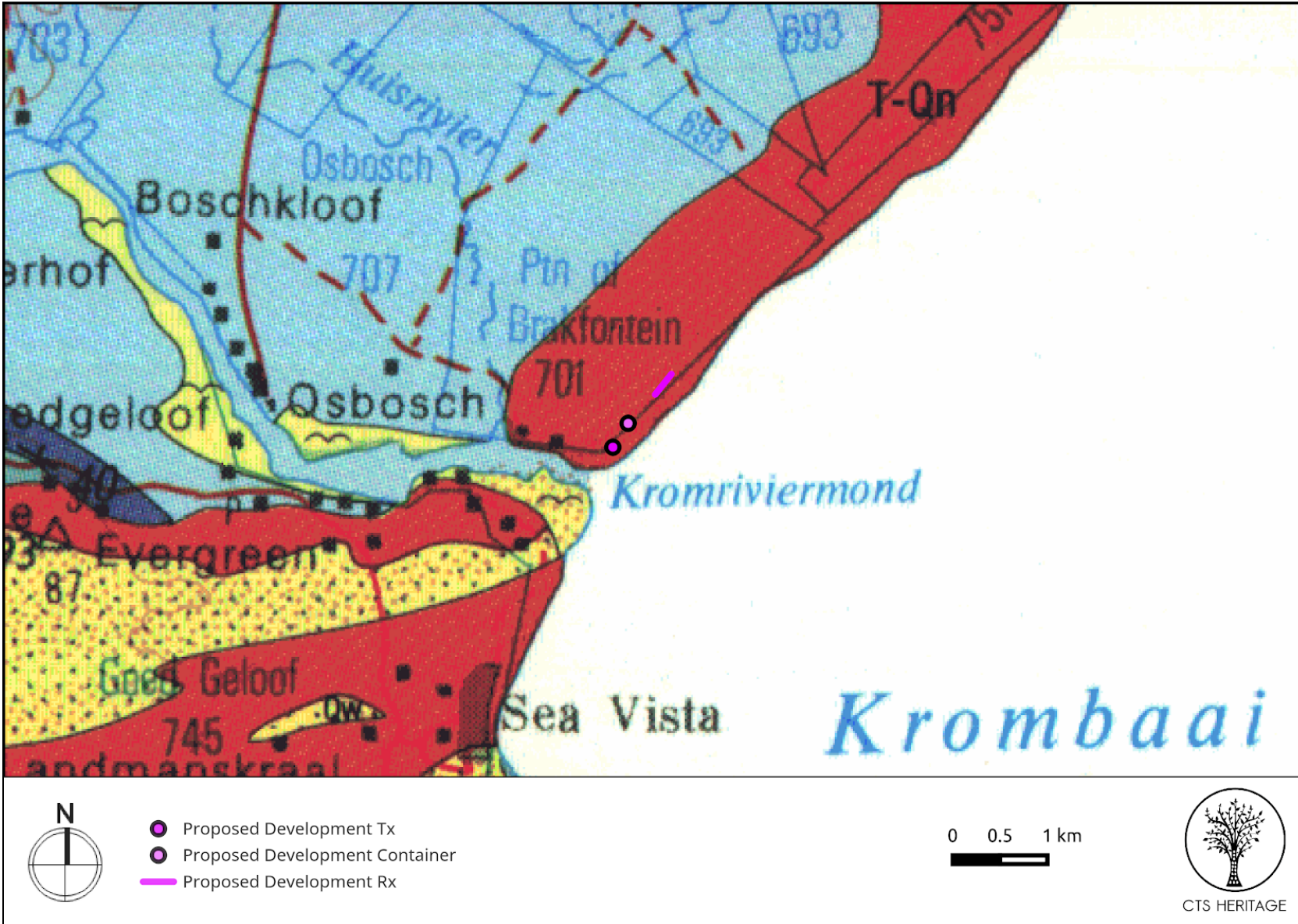


Figure 6. Geology Map. Indicating the underlying geology across the study area through overlaying the geology maps from the CGS series 3324 Port Elizabeth (T-Qn: Nanaga (Aeolianite))

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Figure 7a and b. Example of the kinds of infrastructure proposed.

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Figure 7c. Example of the kinds of infrastructure proposed.

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8. Heritage statement and character of the area

The area proposed for the installation of the High Frequency radar is located just north of the Kromme River outside of Cape St Francis and St Francis Bay. The area was first recorded by western explorers in 1575 by Manuel Perestelo who named the bay “Bahia de Sao Francisco”. Prior to colonial settlement, this area was inhabited by indigenous Khoen and San communities who left evidence of occupation in the form of extensive shell middens along the rocky shore. Later, Cape St Francis came to be known for its excellent surfing conditions and its historical lighthouse. The lighthouse was built in 1878 to warn ships of the dangerous reefs that stretch more than a kilometre out to sea. It is the tallest masonry tower on the South African coast, standing at a height of 27.5 meters and is now a Provincial Heritage Site (Site 28466 in Figure 3a).

In general, the coastline of the Eastern Cape is sensitive in terms of archaeological heritage related to the Middle and Later Stone Age, especially in the form of shell midden remains. According to Van Ryneveld (2010), “Sites are often found within white shifting sand dunes and vary greatly in character; from several meters in extent with significant deposit depth to fairly small ephemeral scatters of lithic artefacts, charcoal and shell. Sites are most common within approximately 400m, but up to 2km from the shoreline (ACO UCT 2010)”. Van Ryneveld goes further to note that “MSA and ESA artefacts closer to the coast have been identified on palaeosols (ACO UCT 2010). Anderson (2010) reported on a single Acheulean artefact located during his survey further inland. The ACO UCT (2010) as well as Anderson and Van Schalkwyk (Pers. Comm. – 2010-12-08) highlighted the possibility of unmarked LSA graves, which, if discovered or encountered during the course of development would be of significant social and scientific interest”. The area proposed for the HF Radar has been previously surveyed and assessed for both archaeological and palaeontological heritage as the proposed development area falls within the Eastern Cluster Study Site of the proposed Kouga Wind Energy Facility (WEF) assessed for impacts to archaeology and the cultural landscape by Van Ryneveld in 2010. Additionally, Webley assessed an area to the north of the proposed radar installation site, also on Farm Osbosch, in 2006. In Webley’s assessment, she identified a number of Early Stone Age artefacts located in a general zone of quartzite cobbles. Webley determined that these artefacts are not conservation-worthy and required no mitigation. Van Ryneveld (2010) identified five sites of heritage significance in her assessment - three colonial period farmhouses, one colonial period cemetery and one low density Early Stone Age scatter which was determined to be not conservation-worthy. None of these identified sites are located near the area proposed for the HF Radar Installation. Based on the information available for this area, as well as the limited and temporary nature and scale of the proposed development, it is very unlikely that significant archaeological heritage resources will be impacted by the proposed development.

According to the SAHRIS Palaeosensitivity Map, the area proposed for the HF Radar Installation is located within the Nanaga Formation consisting of Aeolian sands along the coastline. These sands overly sediments of the Bokkeveld Group - Ceres Subgroup which has in the past yielded a diverse shelly invertebrate biota and trace fossils, and is considered to be very highly sensitive for impacts to significant palaeontology. De Klerk (2010) conducted a Palaeontological Impact Assessment for this area for the proposed Kouga WEF. He noted that rare fish remains, plants and microfossils have been recovered from this general area. He goes on to note that “It is however unlikely that any meaningful fossil will be found in this particular area as the underlying sediments have firstly been subjected to tectonic overprint imparted by the Cape Folding Event that took place around 310 million years ago. This tectonism, coupled with low-grade regional metamorphism has effectively destroyed any fossils that may have been in the original sediments. Secondly a long period of weathering and erosion coupled with repeated marine transgressions and regressions would also have had a negative effect on fossil preservation.” As such, based on the available information for this specific area, as well as the limited and temporary nature and scale of the proposed development, it is very unlikely that significant palaeontological heritage resources will be impacted by the proposed development.

RECOMMENDATION:

Based on the information available for the area proposed for the proposed HF Radar Installation, as well as the limited and temporary nature and scale of the proposed development, it is very unlikely that the proposed development will impact on significant archaeological or palaeontological heritage. As such, it is recommended that no further heritage studies are required, and that this desktop assessment is sufficient for any process required in terms of section 38 of the National Heritage Resources Act (Act 25 of 1999).

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APPENDIX 1

List of heritage resources within the 10km Inclusion Zone from SAHRIS

Site ID	Site no	Full Site Name	Site Type	Grading
28466	9/2/044/0004	Seal Point Lighthouse, Cape St Francis, Humansdorp District	Building	Grade II
35067	BUF001	Buffelsbosch 001	Building	Grade IIIb
25348	CSFB -01	Cape St Francis Bay	Deposit, Shell Midden	Grade IIIb
33201	KCC2.6	Kouga Central Cluster 2.6	Building	Grade IIIb
33184	KEC1.1	Kouga Eastern Cluster 1.1	Building	Grade IIIb
33185	KEC1.2	Kouga Eastern Cluster 1.2	Burial Grounds & Graves	Grade IIIb
33187	KEC1.4	Kouga Eastern Cluster 1.4	Building	Grade IIIb
33188	KEC1.5	Kouga 5 - Eastern Cluster 1.5	Building	Grade IIIb
31237	UMLANDO-RC010		Artefacts, Stone walling	Grade IIIb
31238	UMLANDO-RC011		Artefacts	Grade IIIc
31239	UMLANDO-RC012		Artefacts	Grade IIIc
31240	UMLANDO-RC013		Artefacts	Grade IIIc
31241	UMLANDO-RC014		Artefacts	Grade IIIc
31247	UMLANDO-RC07		Artefacts	Grade IIIc
31248	UMLANDO-RC08		Artefacts	Grade IIIc
31249	UMLANDO-RC09		Artefacts	Grade IIIc
31235	UMLANDO-RC26		Settlement	Grade IIIc
25249	Thuyspunt	Thuyspunt	Archaeological	Grade IIIa
93525	RCF002	Rocky Coast Farm 002	Archaeological	Ungraded
93548	RCF026	Rocky Coast Farm 026	Archaeological	Ungraded
93549	RCF027	Rocky Coast Farm 027	Archaeological	Ungraded

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93550	RCF028	Rocky Coast Farm 028	Archaeological	Ungraded
93552	RCF030	Rocky Coast Farm 030	Archaeological	Ungraded
93553	RCF031	Rocky Coast Farm 031	Archaeological	Ungraded
93554	RCF032	Rocky Coast Farm 032	Archaeological	Ungraded
93555	RCF033	Rocky Coast Farm 033	Archaeological	Ungraded
93557	RCF039	Rocky Coast Farm 039	Archaeological	Ungraded
93617	RCF099	Rocky Coast Farm 099	Archaeological	Ungraded
93618	RCF100	Rocky Coast Farm 100	Archaeological	Ungraded
93619	RCF101	Rocky Coast Farm 101	Archaeological	Ungraded
93620	RCF102	Rocky Coast Farm 102	Archaeological	Ungraded
93621	RCF103	Rocky Coast Farm 103	Archaeological	Ungraded
93622	RCF104	Rocky Coast Farm 104	Archaeological	Ungraded
93623	RCF105	Rocky Coast Farm 105	Archaeological	Ungraded
93646	RCF128	Rocky Coast Farm 128	Archaeological	Ungraded
93627	RCF109	Rocky Coast Farm 109	Archaeological	Ungraded
93628	RCF110	Rocky Coast Farm 110	Archaeological	Ungraded
93633	RCF115	Rocky Coast Farm 115	Archaeological	Ungraded
93635	RCF117	Rocky Coast Farm 117	Archaeological	Ungraded
93636	RCF118	Rocky Coast Farm 118	Archaeological	Ungraded
93637	RCF119	Rocky Coast Farm 119	Archaeological	Ungraded
93638	RCF120	Rocky Coast Farm 120	Archaeological	Ungraded
93642	RCF124	Rocky Coast Farm 124	Archaeological	Ungraded
93643	RCF125	Rocky Coast Farm 125	Archaeological	Ungraded
93644	RCF126	Rocky Coast Farm 126	Archaeological	Ungraded
93645	RCF127	Rocky Coast Farm 127	Archaeological	Ungraded

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93647	RCF129	Rocky Coast Farm 129	Archaeological	Ungraded
93648	RCF130	Rocky Coast Farm 130	Archaeological	Ungraded
93649	RCF131	Rocky Coast Farm 131	Archaeological	Ungraded
93650	RCF132	Rocky Coast Farm 132	Archaeological	Ungraded
93651	RCF133	Rocky Coast Farm 133	Archaeological	Ungraded
93652	RCF134	Rocky Coast Farm 134	Archaeological	Ungraded
93654	RCF136	Rocky Coast Farm 136	Archaeological	Ungraded
93655	RCF137	Rocky Coast Farm 137	Archaeological	Ungraded
93656	RCF138	Rocky Coast Farm 138	Archaeological	Ungraded
93657	RCF139	Rocky Coast Farm 139	Archaeological	Ungraded
93658	RCF140	Rocky Coast Farm 140	Archaeological	Ungraded
93659	RCF141	Rocky Coast Farm 141	Archaeological	Ungraded
93660	RCF142	Rocky Coast Farm 142	Archaeological	Ungraded
93661	RCF143	Rocky Coast Farm 143	Archaeological	Ungraded
93662	RCF144	Rocky Coast Farm 144	Archaeological	Ungraded
93663	RCF145	Rocky Coast Farm 145	Archaeological	Ungraded
93664	RCF146	Rocky Coast Farm 146	Archaeological	Ungraded
93665	RCF147	Rocky Coast Farm 147	Archaeological	Ungraded
93666	RCF148	Rocky Coast Farm 148	Archaeological	Ungraded
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93670	RCF152	Rocky Coast Farm 152	Archaeological	Ungraded
93671	RCF153	Rocky Coast Farm 153	Archaeological	Ungraded
93672	RCF154	Rocky Coast Farm 154	Archaeological	Ungraded
93673	RCF155	Rocky Coast Farm 155	Archaeological	Ungraded
93675	RCF157	Rocky Coast Farm 157	Archaeological	Ungraded

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93676	RCF158	Rocky Coast Farm 158	Archaeological	Ungraded
93677	RCF159	Rocky Coast Farm 159	Archaeological	Ungraded
93678	RCF160	Rocky Coast Farm 160	Archaeological	Ungraded
93679	RCF161	Rocky Coast Farm 161	Archaeological	Ungraded
93680	RCF162	Rocky Coast Farm 162	Archaeological	Ungraded
93681	RCF163	Rocky Coast Farm 163	Archaeological	Ungraded
93682	RCF164	Rocky Coast Farm 164	Archaeological	Ungraded
93683	RCF165	Rocky Coast Farm 165	Archaeological	Ungraded
93684	RCF166	Rocky Coast Farm 166	Archaeological	Ungraded
93685	RCF167	Rocky Coast Farm 167	Archaeological	Ungraded
93686	RCF168	Rocky Coast Farm 168	Archaeological	Ungraded
93687	RCF169	Rocky Coast Farm 169	Archaeological	Ungraded
93689	RCF171	Rocky Coast Farm 171	Archaeological	Ungraded
93690	RCF172	Rocky Coast Farm 172	Archaeological	Ungraded
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93692	RCF174	Rocky Coast Farm 174	Archaeological	Ungraded
93693	RCF175	Rocky Coast Farm 175	Archaeological	Ungraded
93694	RCF176	Rocky Coast Farm 176	Archaeological	Ungraded
93695	RCF177	Rocky Coast Farm 177	Archaeological	Ungraded
93696	RCF178	Rocky Coast Farm 178	Archaeological	Ungraded
93697	RCF179	Rocky Coast Farm 179	Archaeological	Ungraded
93698	RCF180	Rocky Coast Farm 180	Archaeological	Ungraded
93699	RCF181	Rocky Coast Farm 181	Archaeological	Ungraded
93700	RCF182	Rocky Coast Farm 182	Archaeological	Ungraded
93701	RCF183	Rocky Coast Farm 183	Archaeological	Ungraded

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93702	RCF184	Rocky Coast Farm 184	Archaeological	Ungraded
93704	RCF186	Rocky Coast Farm 186	Archaeological	Ungraded
93705	RCF187	Rocky Coast Farm 187	Archaeological	Ungraded
93706	RCF188	Rocky Coast Farm 188	Archaeological	Ungraded
93707	RCF189	Rocky Coast Farm 189	Archaeological	Ungraded
93708	RCF190	Rocky Coast Farm 190	Archaeological	Ungraded
93709	RCF191	Rocky Coast Farm 191	Archaeological	Ungraded
93710	RCF192	Rocky Coast Farm 192	Archaeological	Ungraded
93711	RCF193	Rocky Coast Farm 193	Archaeological	Ungraded
93712	RCF194	Rocky Coast Farm 194	Archaeological	Ungraded
93713	RCF195	Rocky Coast Farm 195	Archaeological	Ungraded
93714	RCF196	Rocky Coast Farm 196	Archaeological	Ungraded
93715	RCF197	Rocky Coast Farm 197	Archaeological	Ungraded
93716	RCF198	Rocky Coast Farm 198	Archaeological	Ungraded
93718	RCF200	Rocky Coast Farm 200	Archaeological	Ungraded
93720	RCF202	Rocky Coast Farm 202	Archaeological	Ungraded
93653	RCF135	Rocky Coast Farm 135	Archaeological	Ungraded
93668	RCF150	Rocky Coast Farm 150	Archaeological	Ungraded
93674	RCF156	Rocky Coast Farm 156	Archaeological	Ungraded
93688	RCF170	Rocky Coast Farm 170	Archaeological	Ungraded
93703	RCF185	Rocky Coast Farm 185	Archaeological	Ungraded
93717	RCF199	Rocky Coast Farm 199	Archaeological	Ungraded

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Sites from PalaeoBiology Database in figure 5

Collection No.	Collection	Formation	Reference
38313	Gamtoos River (Gam 111)	Kirkwood	J. M. Anderson and H. M. Anderson. 1985. <i>Palaeoflora of Southern Africa. Prodrromus of South African Megaflores Devonian to Lower Cretaceous</i> . Rotterdam: A.A. Balkema.

APPENDIX 2

Reference List from SAHRIS

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
4146	PIA Phase 1	James Brink	01/05/2008	A Palaeontological Desktop Study of the Area Proposed to be Developed - Part 78 of the Farm Ongegunde Vryheid 746 (Rocky Coast Farm), Cape St Francis
4243	AIA Phase 1	Lita Webley	25/07/2002	St. Francis Bay Proposed Beach Remediation - Phase 1 Heritage Impact Assessment Report
4256	HIA Letter of Exemption	Johan Binneman	01/06/2006	Letter of Recommendation (with conditions) for the exemption of a Full Phase 1 Archaeological Heritage Impact Assessment on Portion 60 (Part of Portion 57) of the Farm Klein Zeekoe River No. 335, Humansdorp District (Kouga Municipality), Concerning the A
4259	AIA Phase 1	Lita Webley	18/12/2006	Phase 1 Archaeological Impact Assessment: Along the St Francis Bay Beach
4261	AIA Phase 1	Johnny Van Schalkwyk	01/09/2007	Proposed Marina Village Development, Jeffrey's Bay, Humansdorp Magisterial District, Eastern Cape Province
4263	AIA Phase 1	Johan Binneman	01/02/2008	A Phase 1 Archaeological Heritage Impact Assessment on the Proposed Development on Portion 78 of the Farm Ongegunde Vryheid No. 746 (Rocky Coast Farm), Cape St Francis, Kouga Municipality, Humansdorp District, Eastern Cape Province
6225	AIA Phase 1	Johan Binneman	01/08/2008	A Phase 1 Archaeological Heritage Impact Assessment of the Proposed Establishment of Eco-Residential Units on Portion 2 of Farm Swan Lake No. 755, Aston Bay, Kouga Municipality, Eastern Cape Province
6226	AIA Phase 1	Johan Binneman	01/08/2008	A Phase 1 Archaeological Heritage Impact Assessment of the Proposed Establishment of an Eco-Residential Development on Portion 1, 4A, 4B, 5 and Remainder of the Farm Swan Lake No. 755, Aston Bay, Kouga Municipality, Eastern Cape Province
6676	HIA Letter of	Johan Binneman	04/09/2011	A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION OF A FULL PHASE 1

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	Exemption			ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED DRILLING OF A BOREHOLE ON PORTION 78 OF ONGEGUNDE VRYHEID 746, CAPE ST FRANCIS, KOUGA MUNICIPALITY, HUMANSDORP DISTRICT, EA
7124	AIA Phase 1	Karen Van Ryneveld	20/09/2010	ESTABLISHMENT OF A COMMERCIAL WIND FARM, KOUGA LOCAL MUNICIPALITY, EASTERN CAPE, SOUTH AFRICA
7965	AIA Phase 1	Peter Nilssen	06/08/2003	Proposed St Francis Golf Estate (Heritage Impact Assessment Phase 1) Final Report
8445	HIA Phase 1	Karen Van Ryneveld	31/12/2010	ESTABLISHMENT OF A COMMERCIAL WIND FARM, KOUGA LOCAL MUNICIPALITY, EASTERN CAPE, SOUTH AFRICA 1
8446	HIA Phase 1	Karen Van Ryneveld	31/12/2010	ESTABLISHMENT OF A COMMERCIAL WIND FARM, KOUGA LOCAL MUNICIPALITY, EASTERN CAPE, SOUTH AFRICA
8480	HIA Phase 1	Lita Webley	14/09/2006	Phase 1 Heritage Impact Assessment, Portion 2 of the Farm Osbosch 707, St Francis Bay
8955	PIA Phase 1	Billy De Klerk	17/12/2010	Palaeontological Heritage Impact Assessment of the proposed wind farms in the coastal region of the Kouga Local Municipality near the villages of Oyster Bay and St Francis Bay.
26808	AIA Phase 2	Karen Van Ryneveld	03/06/2012	PHASE 1 ARCHAEOLOGICAL ASSESSMENT MICRO-SITING & PHASE 2 ARCHAEOLOGICAL TEST PITTING TURBINE LINE 33-36, RED CAP KOUGA WIND FARM, CENTRAL CLUSTER, OYSTER BAY, EASTERN CAPE, SOUTH AFRICA
44899	AIA Phase 1	Johan Binneman	10/04/2012	Impact on Archaeology
44900	PIA Desktop	John E Almond	10/04/2012	
44916	AIA Phase 1	Karen Van Ryneveld	25/06/2012	MINING RIGHT APPLICATION: FARMS KLEIN RIVIER (713-32) AND BUFFELSBOSCH (742-14), HUMANSDORP DISTRICT, EASTERN CAPE, SOUTH AFRICA
44918	PIA Desktop	John Pether	05/06/2012	MINING RIGHT APPLICATION on Farms Klein Rivier 713 Ptn 32 and Buffelsbosch 742 Ptn 14 District of Humansdorp, Eastern Cape Province
48742	AIA Phase 1	Frank Silberbauer	23/05/2012	Phase 1 Heritage Assessment Report For site number 46, Rivertide Shareblock Scheme, situate on Portion 4 of the farm Osbosch 707, Kromme River, Humansdorp RD, Kouga Municipality, Cacadu District, Eastern Cape Province.
177466	AIA Phase 2	Karen Van Ryneveld	01/10/2014	Phase 2a Archaeological Monitoring (Final Report) - The Kouga Wind Farm (Red Cap Kouga Wind Farm, Central Cluster), Oyster Bay, Eastern Cape, South Africa
256073	AIA Phase 1	Johan Binneman	05/08/2014	PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENTS OF THE PROPOSED, STORM WATER MANAGEMENT SYSTEM AND THE RESIDENTIAL EXTENSION FOR PORTION 62 OF THE FARM ONGEGUNDE VRYHEID NO. 746, ST FRANCIS BAY, KOUGA LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE

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256074	Palaeontological Specialist Reports	Robert Gess	30/07/2014	Palaeontological Impact Assessment for a Stormwater Management Plan for Portion 62 of the farm Ongegunde Vryheid No 746, St Francis Bay
317386		Nicholas Wiltshire, Mariagrazia Galimberti, Kyla Bluff, Peter Kloos	24/07/2015	Paradise Beach Residential Development
356884	PIA Desktop	John Almond	01/07/2008	PALAEONTOLOGICAL DESKTOP STUDY FOR BANTAMSKLIP (W. CAPE) AND THYSPUNT (E. CAPE) REACTOR SITES
356885	PIA Desktop	John Almond	01/07/2008	PALAEONTOLOGICAL DESKTOP STUDY FOR BANTAMSKLIP (W. CAPE) AND THYSPUNT (E. CAPE) REACTOR SITES
360884		Mariagrazia Galimberti	23/03/2016	Heritage Screener for Ongegunde Vryheid (Rocky Coast Farm), Eastern Cape 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)
DEA	Department of Environmental Affairs (National)
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DEDECT	Department of Economic Development, Environment, Conservation and Tourism (North West)
DEDT	Department of Economic Development and Tourism (Mpumalanga)
DEDTEA	Department of economic Development, Tourism and Environmental Affairs (Free State)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DMR	Department of Mineral Resources (National)
GDARD	Gauteng Department of Agriculture and Rural Development (Gauteng)
HIA	Heritage Impact Assessment
LEDET	Department of Economic Development, Environment and Tourism (Limpopo)
MPRDA	Mineral and Petroleum Resources Development Act, no 28 of 2002
NEMA	National Environmental Management Act, no 107 of 1998
NHRA	National Heritage Resources Act, no 25 of 1999
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VIA	Visual Impact Assessment

Full guide to Palaeosensitivity Map legend

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

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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

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Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

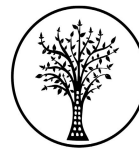
(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

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

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- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- compilation of a report for a component of a heritage impact assessment not already undertaken in the area
- undertaking mitigation measures requested in previous assessments/records of decision.

(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment.

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