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HERITAGE SCREENER

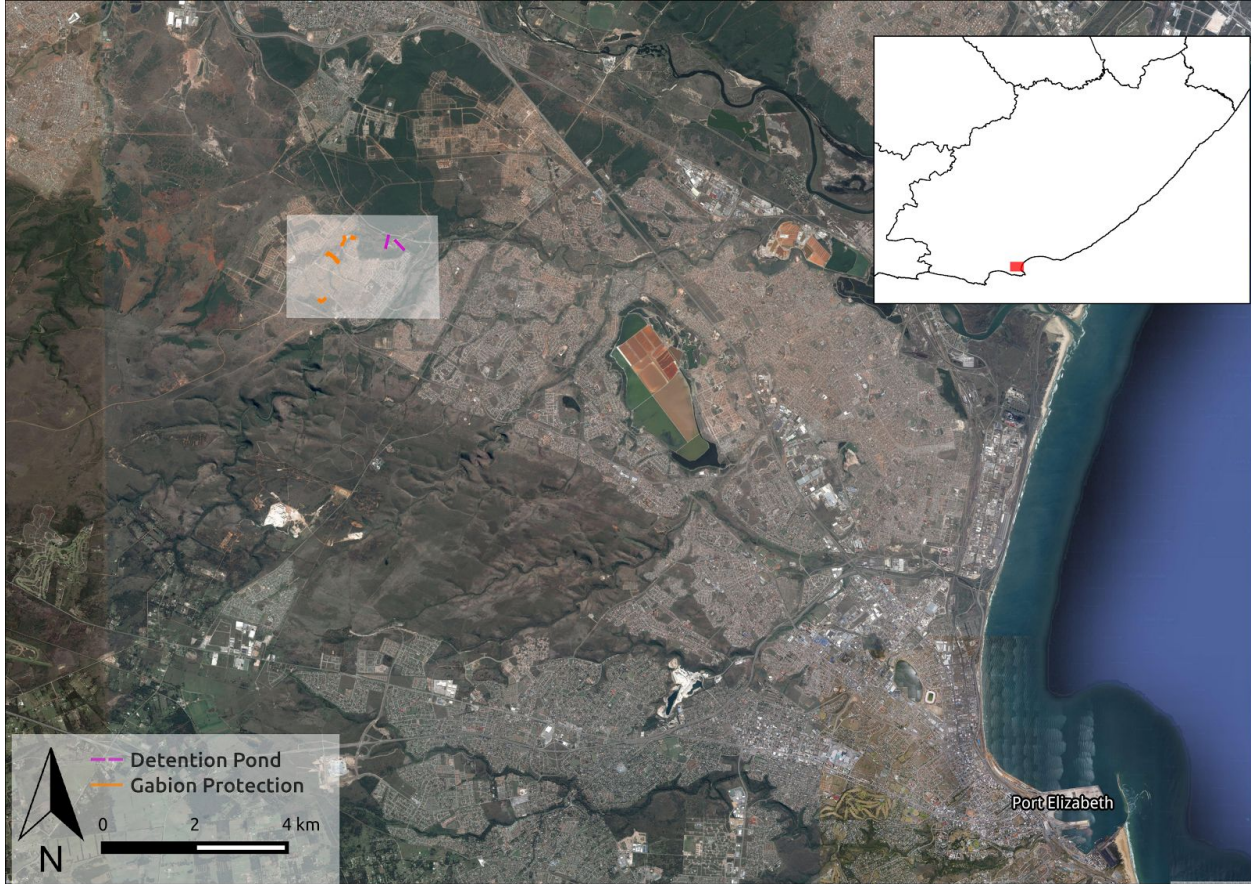
CTS Reference Number:	CTS16_019	
Client:	SRK Consulting	
Date:	05 May 2016	
Title:	Bulk Stormwater Infrastructure, Upper Chatty, Eastern Cape	
Recommendation by CTS Heritage Specialists: (Type 2)	<p>(2) The heritage resources and the area proposed for development are only partially recorded - It is recommended that:</p> <ul style="list-style-type: none">- A heritage specialist conducts a field survey to assess for the possible presence of graves in the area proposed for the detention pond.- should pink mudstones be exposed during trenching, these should be inspected by a palaeontologist prior to backfilling.	

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

1. Proposed Development Summary

The proposed activities involve the installation of bulk stormwater infrastructure in the upper catchment of the Chatty River. This will include the construction of a detention pond in the drainage line east of Chatty and protective gabion structures where the floodlines pose a risk to properties or cause erosion. Two potential locations are investigated for the proposed detention pond. The project also entails road infrastructure for three proposed watercourse crossings.

2. Application References

Name of relevant heritage authority(s)	Eastern Cape Provincial Heritage Resources Agency (ECPHRA)
Name of decision making authority(s)	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)

3. Property Information

GPS Coordinates	S33°50'54.425"; E25°28'5.366" (northernmost area) S33°51'38.208"; E25°27'21.227" (southernmost area)
Farm Name/Number	NA
Local Municipality	Nelson Mandela Bay Metropolitan Municipality
District Municipality	Nelson Mandela Bay Metropolitan Municipality
Previous Magisterial District	Port Elizabeth
Province	Eastern Cape Province
Current Use	Residential / Vacant
Current Zoning	Residential / Industrial
Total Extent	Total length: 760m

4. Nature of the Proposed Development

Surface area to be affected/destroyed	760m
Depth of excavation (m)	0.5 - 1 m
Height of development (m)	NA
Expected years of operation before decommission	Unknown

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.	
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



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7. Mapping - Please see Appendices 3 and 4 for legend keys and methodology.



Figure 1b. Overview Map. Satellite image (2016) with proposed development indicated.



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Figure 1c. Satellite image close-up of area for the proposed detention pond.



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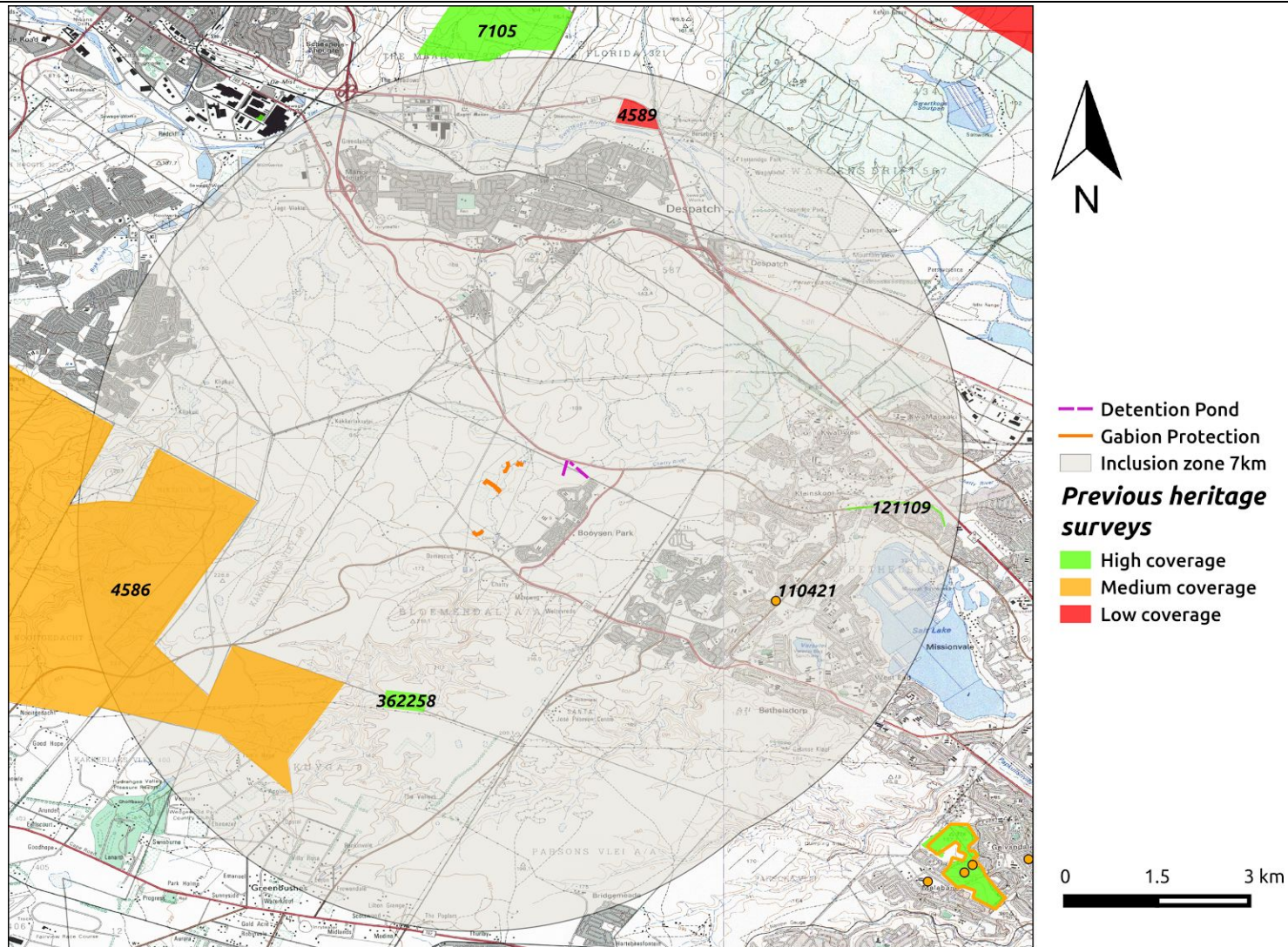


Figure 2a. HIAs Map. Previous Heritage Impact Assessments conducted within 7km of the proposed development area with SAHRIS NID labels indicated (excluding PIAs).



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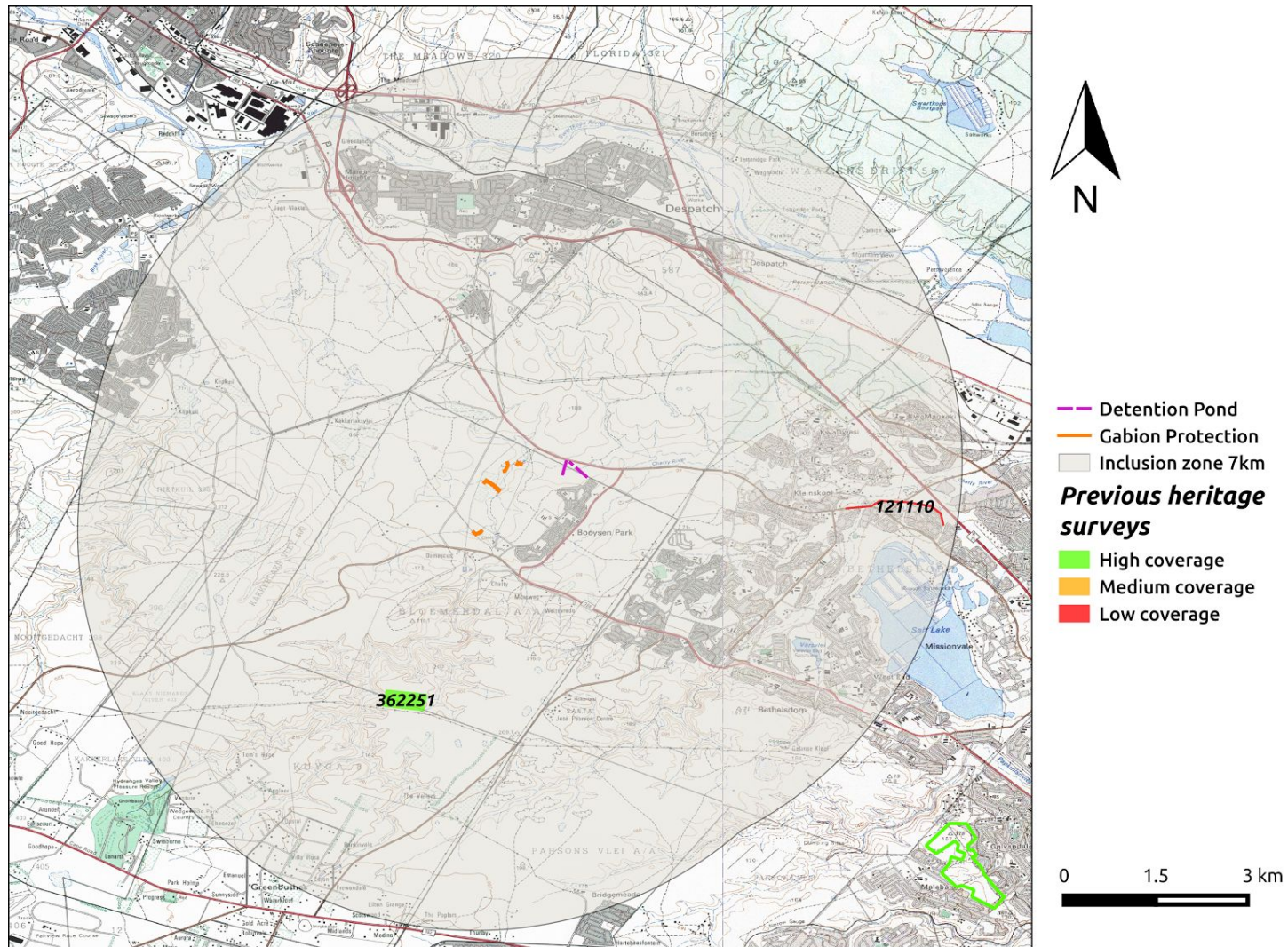


Figure 2b. PIAs Map. Previous Palaeontological Impact Assessments conducted within 7km of the proposed development area with SAHRIS NID labels indicated.



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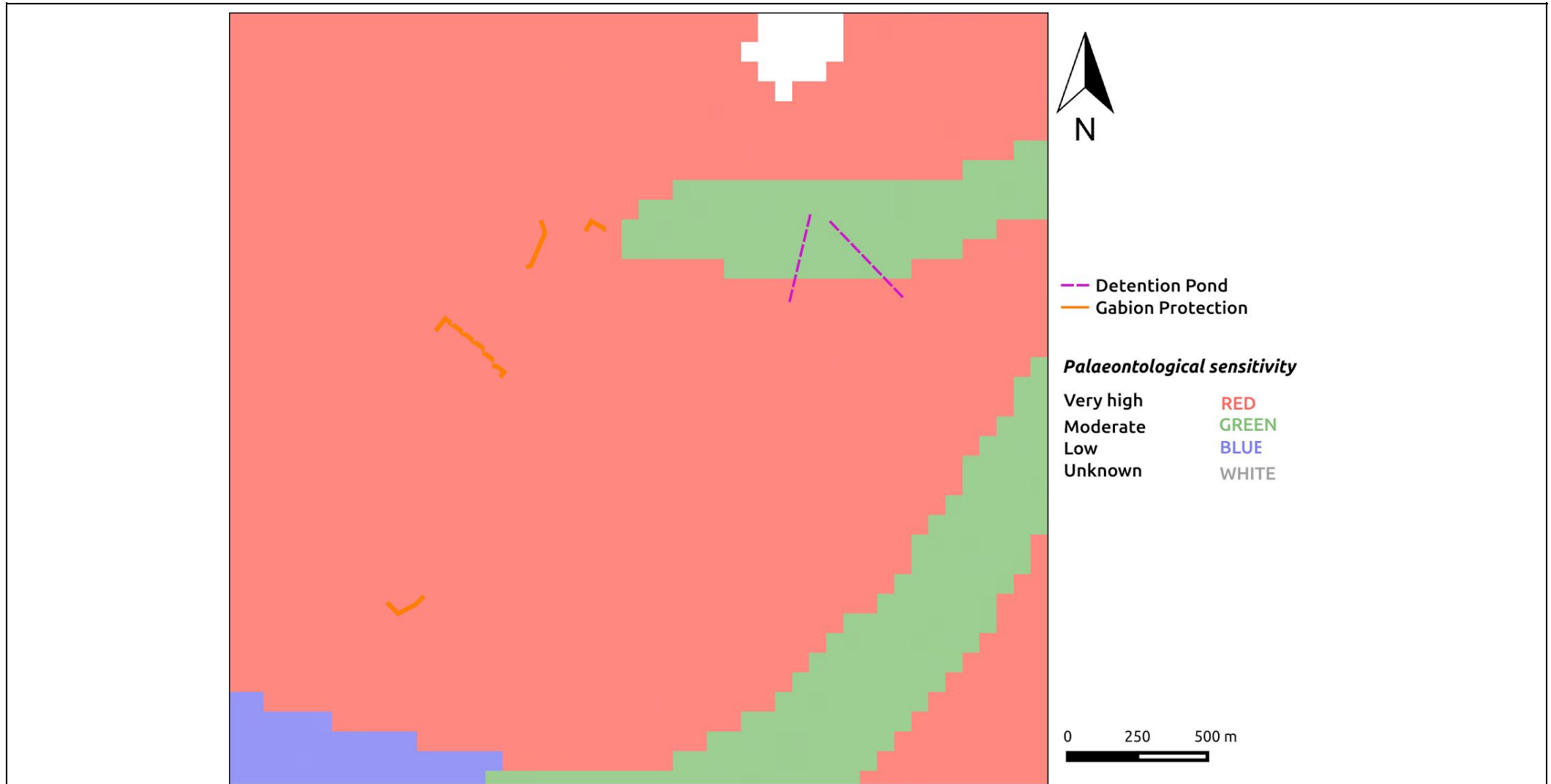


Figure 3. Palaeo Map. Palaeosensitivity of the study area. See Appendix 3 for full guide to the legend.



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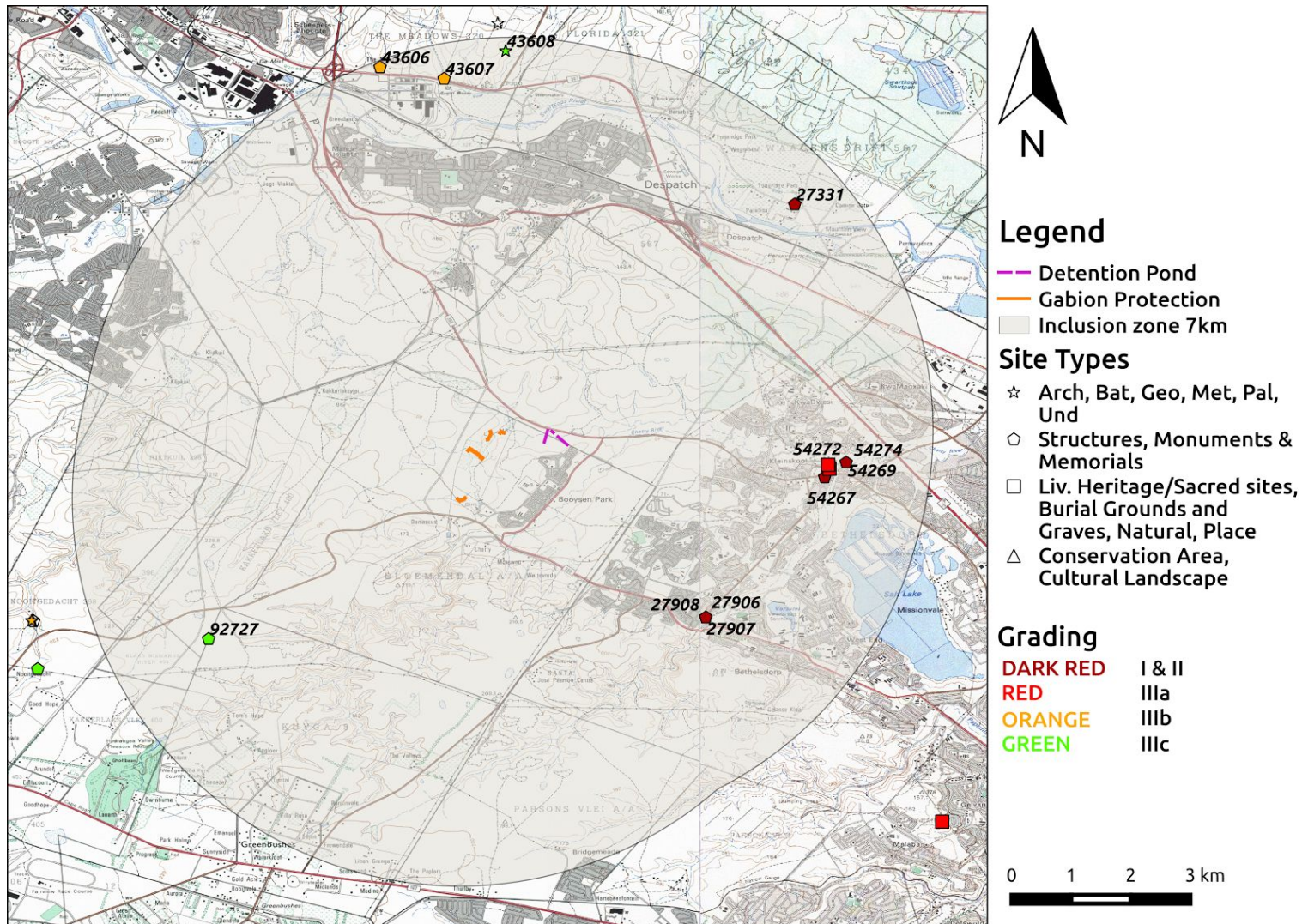


Figure 4a. Heritage Resources Map. Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated.



8. Heritage statement and character of the area

SRK is undertaking the Basic Assessment Process for the establishment of bulk stormwater infrastructure in the Upper Chatty Valley. The proposed infrastructure will be located within Booyesen Park along existing roads and infrastructure. The detention pond is proposed between the existing settlement and the Chatty River, south of the Old Uitenhage Road.

The area proposed for the detention pond is currently vacant and covered by thick vegetation which may hamper field surveys. The area is also criss-crossed by numerous paths and trails connecting Booyesen Park to the river and the Old Uitenhage Road.

Several Heritage Impact Assessments have been conducted within the 7km inclusion zone surrounding the proposed development. Of particular relevance is the HIA undertaken for the upgrade of the stormwater system along the Chatty River at Bethelsdorp, located about 5km from this development (Van Ryneveld 2013, report 121109). Van Ryneveld assessed the impact of the stormwater system upgrade on cultural heritage (121109 in Figure 2a) and identified no archaeological resources during her field survey. However, two formal cemeteries and two structures older than 60 years were found. Most of the sites identified within 7km inclusion zone are structures older than 60 years and burial grounds. Although it is unlikely that *in situ* archaeological material will be identified for this project, it is recommended that a **heritage specialist conducts a field survey to locate and record possible graves in the area proposed for the detention pond.**

The proposed detention pond is underlain by alluvium of medium palaeontological sensitivity. The gabions and water crossing are located on the Kirkwood Formation which is of very high palaeontological significance as this formation has yielded the only evidence of Cretaceous dinosaur remains in South Africa (Gess 2013). These are the same formations underlying the Chatty stormwater system at Bethelsdorp. In line with previous recommendations made by the consulting palaeontologist in a similar context, it is recommended that **no PIA is conducted. However, should pink mudstones be exposed during trenching, these should be inspected by a palaeontologist prior to backfilling.**



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APPENDIX 1 - Site Lists

List of sites within 7km inclusion zone and outside proposed development area

Site ID	Site no	Full Site Name	Site Type	Grading	Declaration
27906	9/2/073/0020	Alms houses, Bethelsdorp, Port Elizabeth District	Building	Grade II	Provincial Heritage Site
27907	9/2/073/0020/001-01	Van der Kemp Memorial Church, Bethelsdorp, Port Elizabeth District	Building	Grade II	Provincial Heritage Site
27908	9/2/073/0020/001-02	David Livingstone Cottage, Bethelsdorp, Port Elizabeth District	Building	Grade II	Provincial Heritage Site
27331	9/2/095/0024	Farmstead, Totteridge Park, near Perseverance, Uitenhage District	Building	Grade II	Provincial Heritage Site
54267	CVS001	Chatty Valley Sewer 001	Building	Grade II	NA
54274	CVS004	Chatty Valley Sewer 004	Building	Grade II	NA
54269	CVS002	Chatty Valley Sewer 002	Burial Grounds & Graves	Grade IIIa	NA
54272	CVS003	Chatty Valley Sewer 003	Burial Grounds & Graves	Grade IIIa	NA
43606	KOE-03	Koedoeskloof 03	Building	Grade IIIb	NA
43607	KOE-04	Koedoeskloof 04	Building	Grade IIIb	NA
43608	KOE-05	Koedoeskloof 05	Artefacts	Grade IIIc	NA
92727	HCP006	Hopewell Conservation Project 006	Structures	Grade IIIc	NA

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APPENDIX 2 - Reference List

Nid	Report Type	Author/s	Date	Title
Archaeological/Heritage Impact Assessments				
4586	AIA	Van Ryneveld, K.	05/10/2007	Phase 1 Archaeological Impact Assessment - the Hopewell Conservation Project, Greenbushes, Port Elizabeth, Eastern Cape, South Africa
4589	AIA	Webley, L.	01/08/2008	Phase 1 Heritage Impact Assessment: Portion 6 of the Farm Florida 321, Despatch, Nelson Mandela Metropole, Eastern Cape
7105	AIA	Van Ryneveld, K.	02/12/2010	Development of the Koedoeskloof Landfill Site, Uitenhage, Eastern Cape, South Africa
110421	AIA	Van Ryneveld, K.	16/02/2013	Phase 1 Archaeological Impact Assessment. Malabar Extension 6 Phase 2 Housing Development, Erf/RE 349, New Brighton & Erven 444 & 1086, Malabar, Nelson Mandela Bay Municipality, Eastern Cape, South Africa.
121109	AIA	Van Ryneveld, K.	18/03/2013	Replacement of the Chatty Valley collector sewer & construction of the link sewer, Bethelsdorp, Nelson Mandela Bay Municipality, Eastern Cape, South Africa
362258	AIA	Binneman, J.	01/08/2010	Archaeological Impact Assessment for a prospecting right of Area D on Remainder of Erf 1362 Bloemendal, Nelson Mandela Bay Municipality, Port Elizabeth
Palaeontological Impact Assessment				
121110	PIA Desktop	Gess, R.	01/04/2013	Desktop Palaeontological Impact Assessment for the proposed replacement of the Chatty Valley collector sewer (nodes 20-24) and construction of link sewer, Bethelsdorp, Nelson Mandela Bay Municipality
362251	PIA Exemption	Almond, J.	01/08/2010	Recommended Exemption from Further Palaeontological Mitigation. Application for prospecting rights in Area D, Remainder of Erf 1362 Bloemendal, Nelson Bay Municipality, Eastern Cape Province









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APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

AIA	Archaeological Impact Assessment
DEA	Department of Environmental Affairs
DEADP	Department of Environmental Affairs and Development Planning
DMR	Department of Mineral Resources
HIA	Heritage Impact Assessment
HWC	Heritage Western Cape
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.

Grading of heritage sites which form part of the national estate is defined in s. 7 of the National Heritage Resources Act (NHRA) as:

*(a) **Grade I:** Heritage resources with qualities so exceptional that they are of special national significance; Examples of these sites are Mapungubwe Cultural Landscape, The Parliament of South Africa, Sarah Baartman Burial Site, Robert Sobukwe's grave, Lake Fundudzi, Voortrekker Monument, Union Buildings.*

*(b) **Grade II:** Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; they are normally declared Provincial Heritage Sites under s. 27 of the NHRA after the competent Provincial Heritage Resources Authority has established their significance. Many of the current Provincial Heritage Sites were declared National Monument under the previous heritage legislation and their status was changed to Provincial Heritage Sites when the National Heritage Resources Act was proclaimed in 1999. Amongst these sites, Mapoch's Caves in Limpopo, Umhlatuzana Rock Shelter in KwaZulu Natal, Van der Stel's Copper Mine in the Northern Cape, the old Cemetery in Grahamstown, Eastern Cape and Baboon Point, in the Western Cape.*

*(c) **Grade III:** Other heritage resources worthy of conservation, and which prescribes heritage resources assessment criteria, consistent with the criteria set out in section 3(3), which must be used by a heritage resources authority or a local authority to assess the intrinsic, comparative and contextual significance of a heritage resource and the relative benefits and costs of its protection, so that the appropriate level of grading of the resource and the consequent responsibility for its management may be allocated (...).*

The following sub-categories are currently in use for Grade III::

Grade IIIa sites are sites of such a high local significance that should be protected and retained. These sites should be included in the heritage register of each province as defined in s. 30 of the NHRA and should not be impacted upon. In the instance of buildings, any alteration must be regulated. Because of their nature, all human remains are considered of high



significance. While relocation of graves is common practice, this should always be considered as the last option. Examples of these sites are all graves and burial grounds which have not been graded I or II, Peers Cave in Western Cape,

Grade IIIb sites are resources of medium local significance. They should preferably be retained where possible, but where not possible the site must be fully investigated and/or mitigated. After mitigation they may be impacted upon.

Grade IIIc sites are of low local significance. These resources must be satisfactorily studied before destruction. In many instances the recording and description of the site undertaken at the heritage impact assessment level is sufficient and further recording or mitigation may not be required. These sites include for instance small knapping sites which have been sufficiently recorded at the archaeological impact assessment level, palaeontological fossils of low significance which do not require recovery. In the case of the built environment, IIIc structures will only require protection and regulation if the significance of the environs in which they are located is sufficient to warrant protective measures.

The heritage specialist in the field should suggest a grading for the site, but it will then need to be ratified and accepted by the competent heritage authority.

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



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- 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.**

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