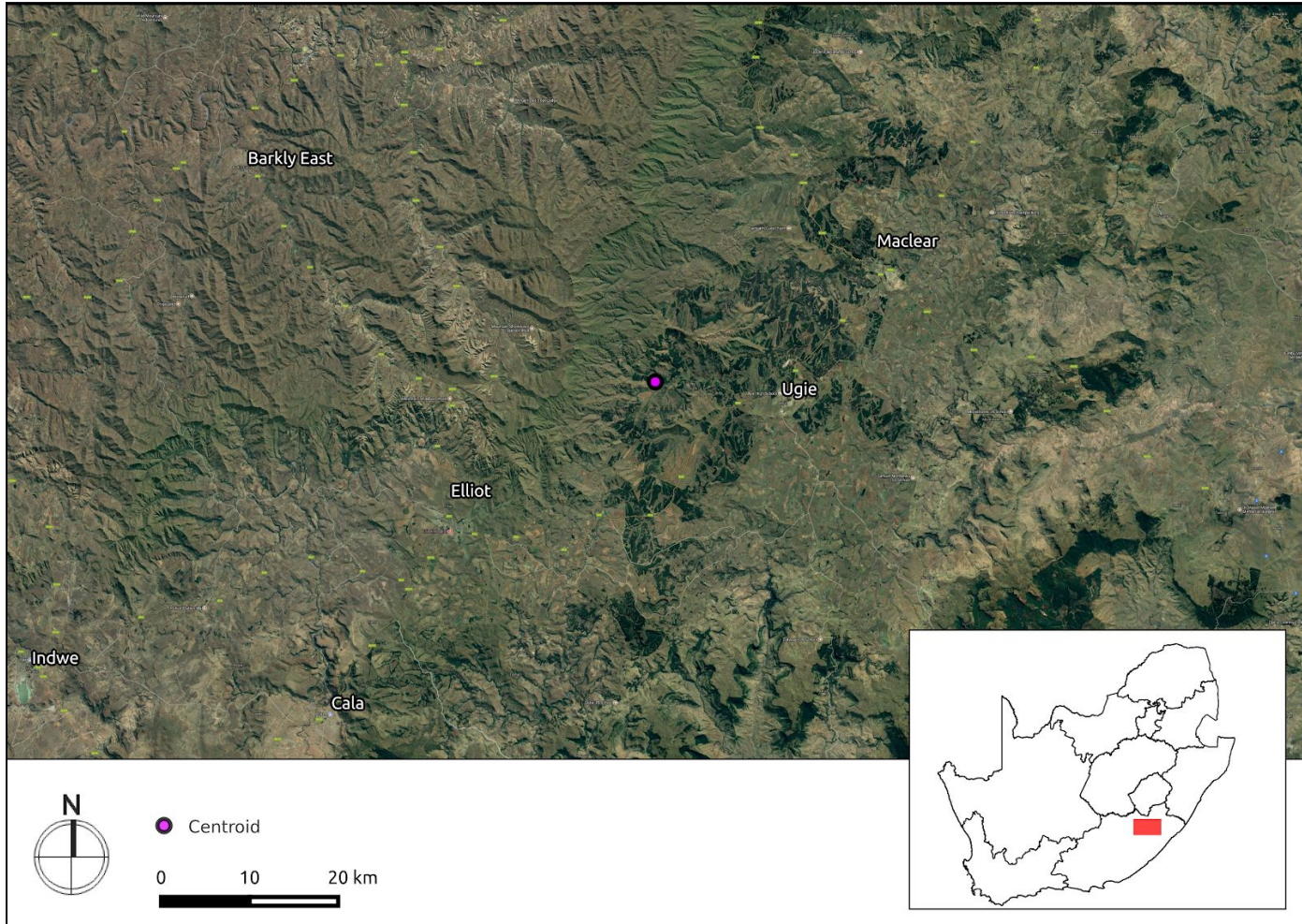


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## HERITAGE SCREENER

CTS Reference Number:	CTS18_145	
Client:	Moira Cloete	
Date:	31 July 2018	
Title:	Proposed internal access roads within forestry compartments on behalf of PG Bison near Ugie, Eastern Cape	
Recommendation by CTS Heritage Specialists	<p><b>RECOMMENDATION:</b> <b>The heritage resources in the area proposed for development are sufficiently recorded</b> Based on the available information, including the scale and nature of the proposed development, it is unlikely that any significant heritage resources will be impacted and as such it is recommended that no further heritage studies are required.</p>	



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## 1. Proposed Development Summary

PG Bison are proposing to construct 10 internal forestry access roads within their J and D Block forestry compartments, near Ugie, Eastern Cape. The proposed internal access forestry road are required to access forestry compartments which were planted approximately 20 years ago by the previous land owner, to Pinus species. These trees have now reached maturity following a 20 year growth cycle. These mature trees are to be felled and debarked as part of the harvesting process, after which they are to be brought to a central loading area for transport to the PG Bison board plant factory situated to the north east of Ugie town.

## 2. Application References

<b>Name of relevant heritage authority(s)</b>	ECPHRA
<b>Name of decision making authority(s)</b>	DEDEAT

## 3. Property Information

<b>Latitude / Longitude</b>	31°11'0.58"S 28° 4'22.61"E
<b>Erf number / Farm number</b>	Farm 303, portion 3 and 4, Wildebeest Farm; Farm 303, Portion 5, Roseg Farm
<b>Local Municipality</b>	Elundini
<b>District Municipality</b>	Joe Gqabi DM
<b>Previous Magisterial District</b>	Maclear
<b>Province</b>	Eastern Cape
<b>Current Use</b>	Commercial Forestry
<b>Current Zoning</b>	Forestry
<b>Total Extent</b>	463,5875ha, 369,5287ha, 3,286,586ha

## 4. Nature of the Proposed Development

<b>Total Surface Area</b>	2610m, 1679m, 1407m, 1307m, 551m, 800m, 642m, 686m, 2810m, 388m
<b>Depth of excavation (m)</b>	From 200mm to 2m
<b>Height of development (m)</b>	NA
<b>Expected years of operation before decommission</b>	NA

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## 5. Category of Development

x	<b>Triggers: Section 38(8) of the National Heritage Resources Act</b>
	<b>Triggers: Section 38(1) of the National Heritage Resources Act</b>
	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 <sup>2</sup> in extent
	b) involving three or more existing erven or subdivisions thereof
	c) involving three or more erven or divisions thereof which have been consolidated within the past five years
	4. Rezoning of a site exceeding 10 000m <sup>2</sup>
	5. Other (state):

## 6. Additional Infrastructure Required for this Development

Low level crossings will be installed in the form of gabion baskets on either side of a low level 150mm concrete slab. Deeper crossings will require concrete pipes under a concrete slab.

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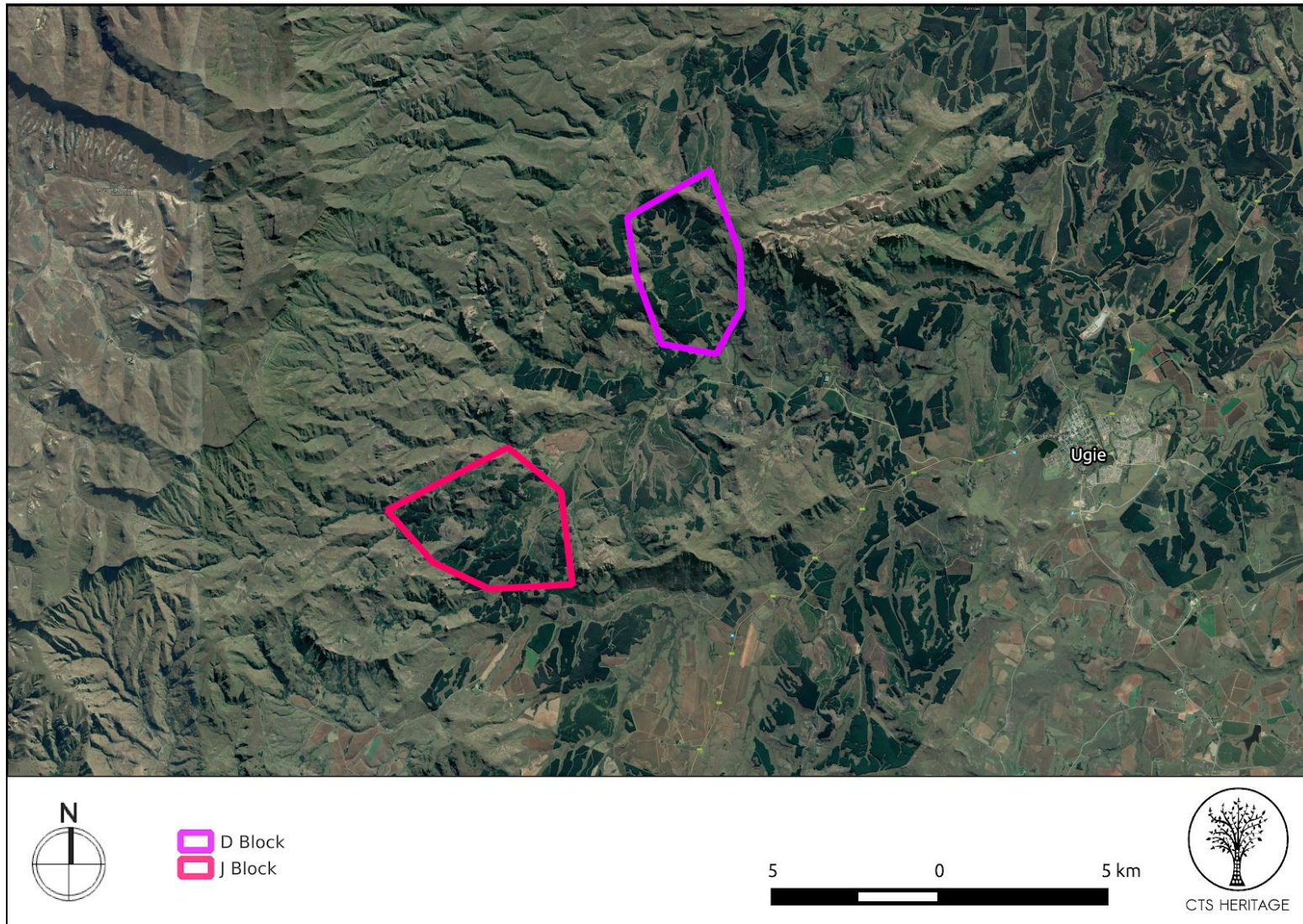
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## 7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)



**Figure 1b. Overview Map.** Satellite image (2017) indicating the proposed development area at closer range.

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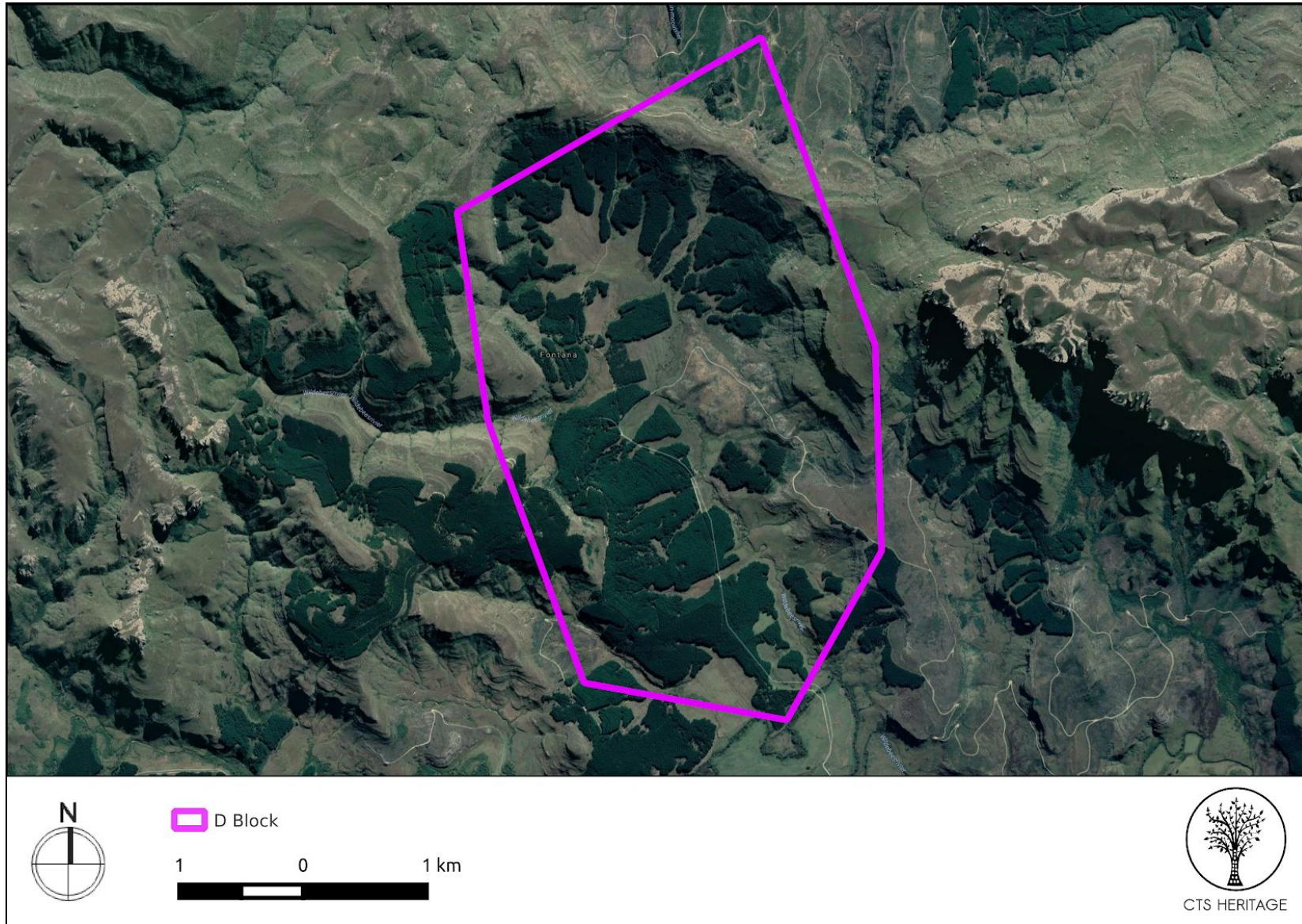
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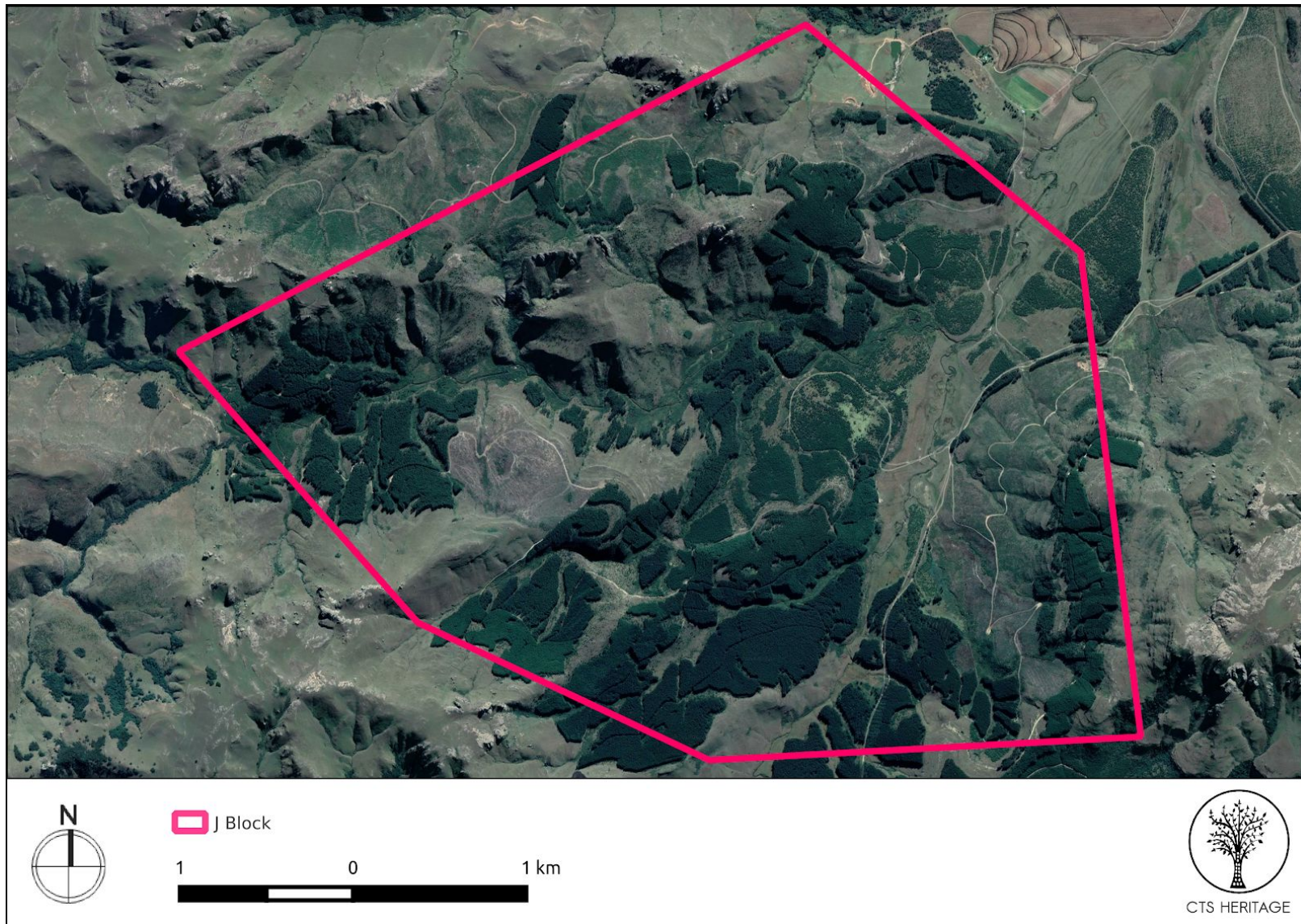


**Figure 1c. Overview Map.** Satellite image (2017) indicating the proposed development area (D Block) at closer range.





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**Figure 1d. Overview Map.** Satellite image (2017) indicating the proposed development area (J Block) at closer range.

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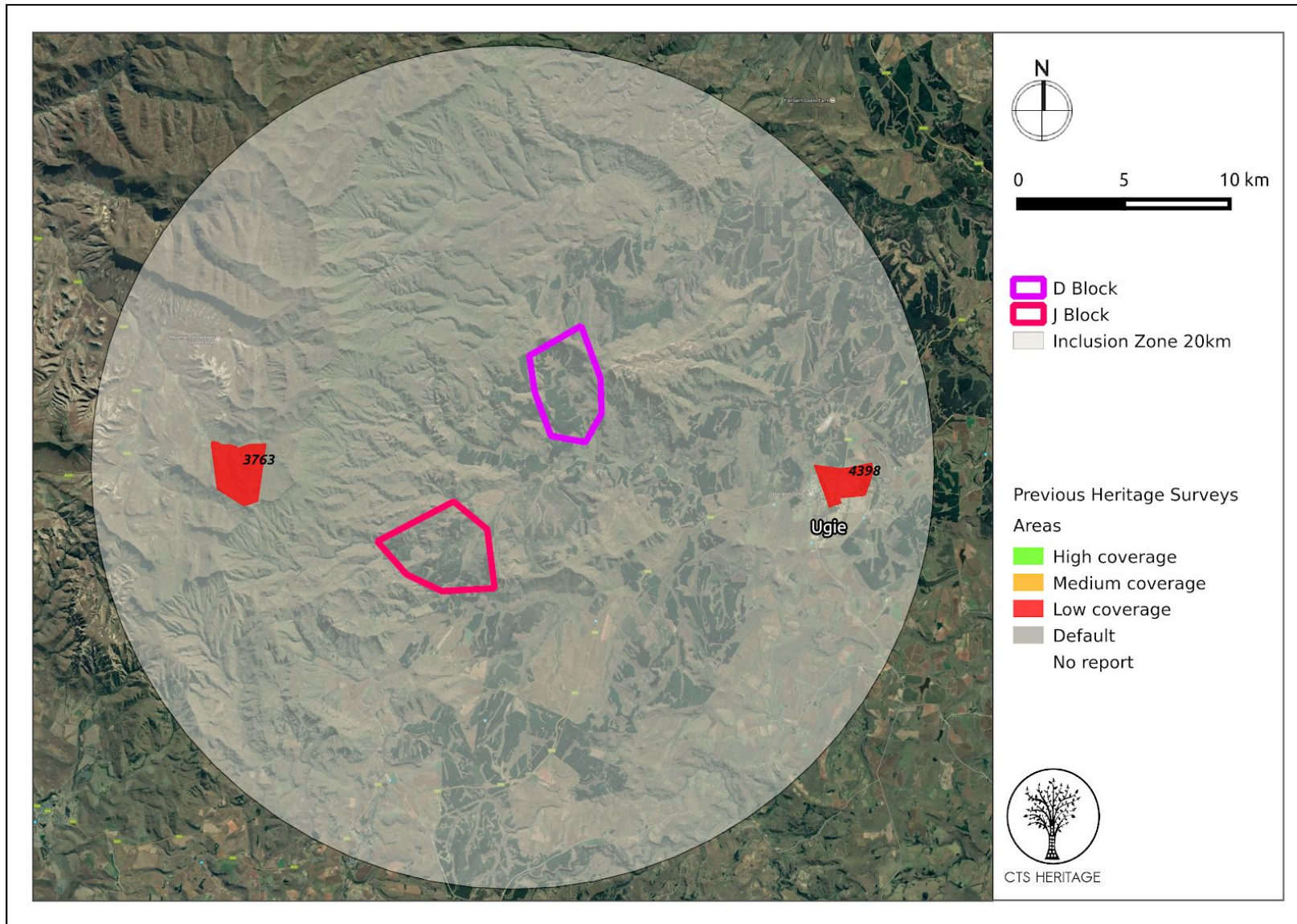
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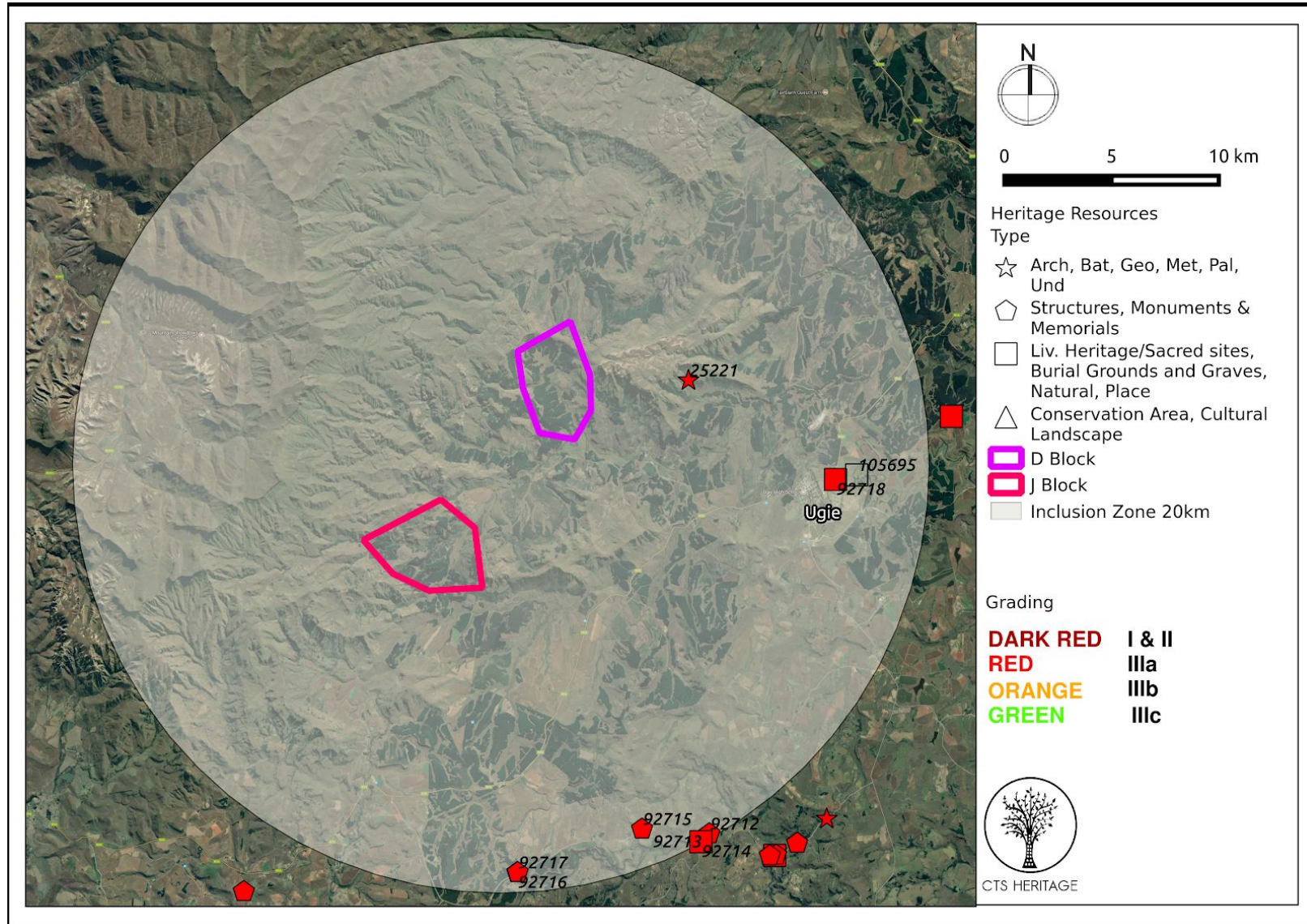


**Figure 2. Previous HIAs Map.** Previous Heritage Impact Assessments surrounding the proposed development area within 5km, with SAHRIS NIDS indicated. Please see Appendix 2 for full reference list.





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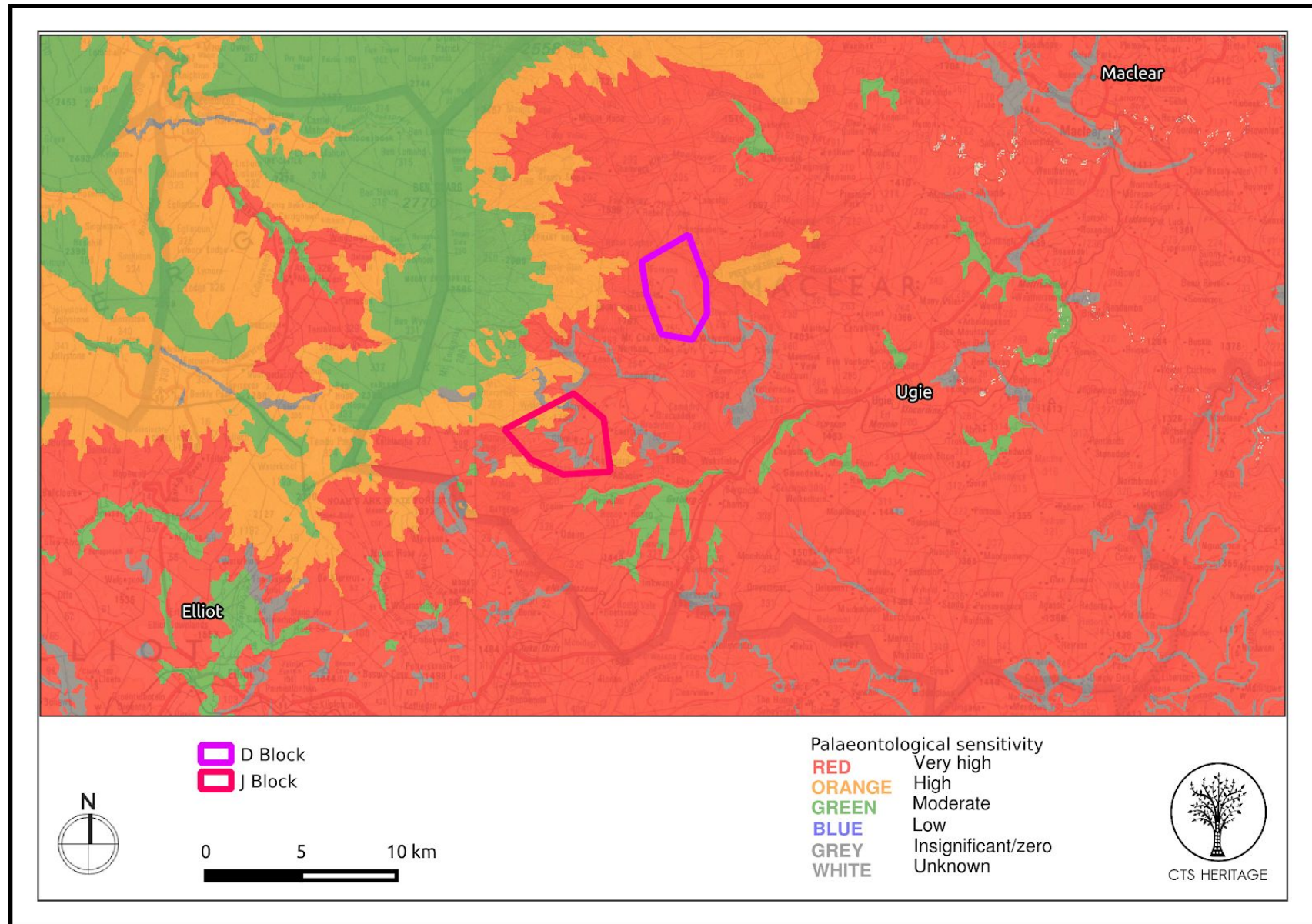
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**Figure 4. Palaeosensitivity Map.** Indicating varied fossil sensitivity underlying the study area. Please See Appendix 3 for full guide to the legend.

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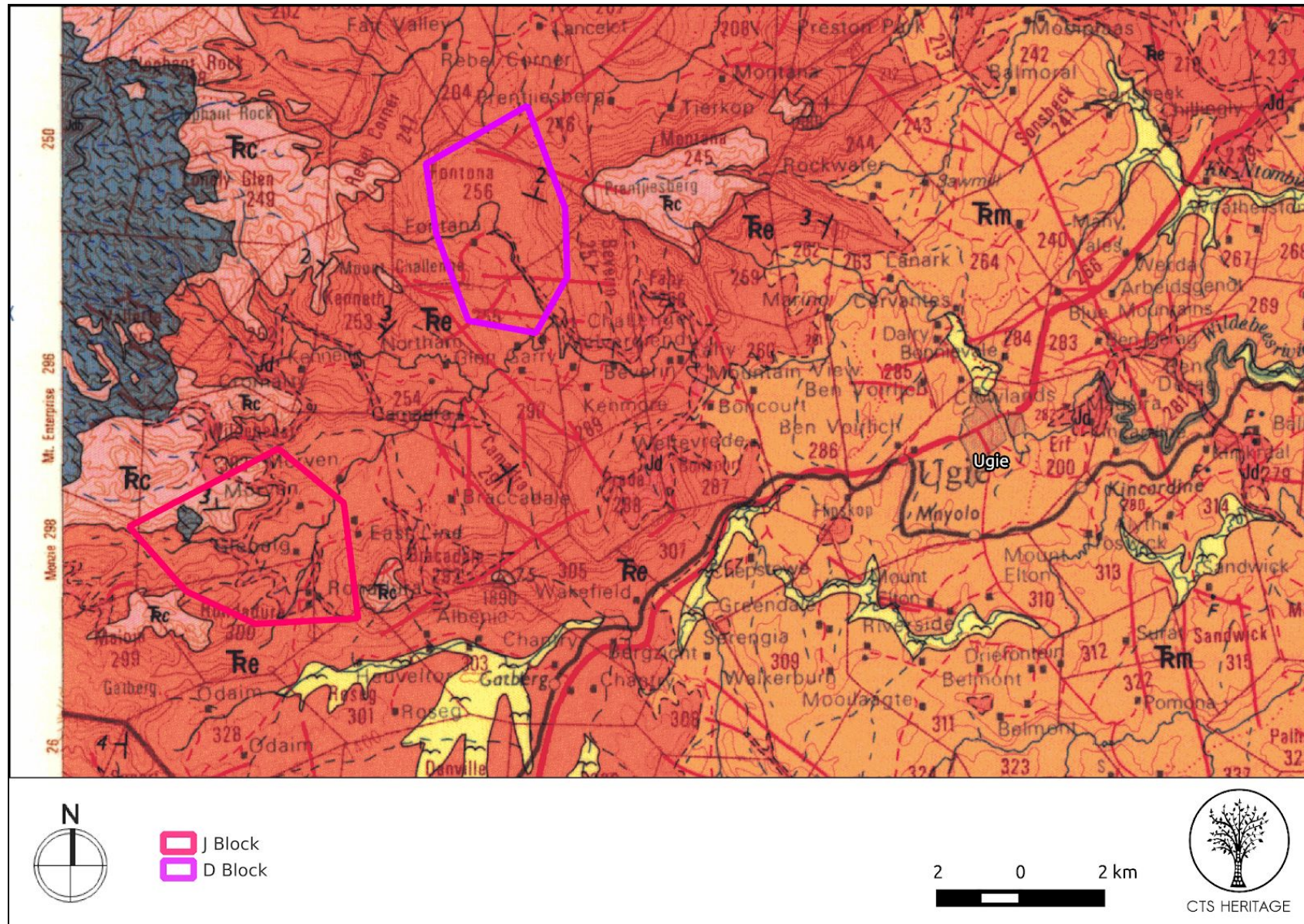
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**Figure 5. Geological Map.** Extract from Sheet 3128 Umtata from the Council of GeoScience

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## 8. Heritage statement and character of the area

PG Bison are proposing to construct 10 internal forestry access roads within their J and D Block forestry compartments, near Ugie, Eastern Cape. The proposed internal access forestry road are required to access forestry compartments which were planted approximately 20 years ago by the previous land owner, to Pinus species. These trees have now reached maturity following a 20 year growth cycle. These mature trees are to be felled and debarked as part of the harvesting process, after which they are to be brought to a central loading area for transport to the PG Bison board plant factory situated to the north east of Ugie town.

As can be seen in Figures 1b, c and d, the area proposed for development has been extensively previously disturbed through the systematic cultivation of plantation pines for the last 20 years. This systematic planting would have resulting in impact and disturbance to any archaeological resources that may have previously been evident on this landscape. Two Heritage Impact Assessments have been conducted within 20km of the proposed development area. In Dreyer's (2007, SAHRIS NID 3763) report, he notes that "The land consists of an alluvial sand deposit along the river where centre-pivot irrigation is practiced. No cultural, historical or palaeontological components were found during the investigation, nor were there any existing buildings, graves or burial grounds in the area." In Van Schalkwyk and Wahl's (2007, SAHRIS NID 4398) report, they identified no heritage resources of significance other than ancestral graves graded IIIA. In another assessment conducted by Prins and Hall (2010, SAHRIS NID 7865), which has not been mapped on SAHRIS, 31 heritage resources were identified. Of these, 7 fall within 20km of the proposed development area (Figure 3). These resources include significant structures and burial grounds or graves (Appendix 1).

A very significant archaeological site, Craigmere 7, is located less than 5 kms away from the boundaries of D Block. This is a Later Stone Age archaeological sandstone shelter site with rock art, and has been the subject of academic research by Mallen (Rock Art Research Institute) and is therefore graded IIIA. This site is located in the foothills of the kloofs of Prentjiesberg and is associated with the sandstone geology of this landscape feature. It is unlikely that similar significant archaeological sites will be located within the boundary of the proposed development area. Based on the location, nature and scale of the proposed development, it is unlikely that significant archaeological resources will be impacted.

The areas proposed for development are underlain by geological sediments of the Elliot Formation, of very high palaeontological sensitivity, the Clarens Formation, of high palaeontological sensitivity and the Drakensberg Group of moderate palaeontological sensitivity. The Elliot Formation is very significant as it is known for preserving important early dinosaur fauna (prosauropods, sauropods, ornithischians, tetrapod trackways etc), amphibians, turtles, crocodilians, advanced therapsids and primitive mammals. Rich fossil reptile fauna dominated by early dinosaurs (principally sauropodomorphs like *Massospondylus*, "*Euskelesaurus*"), ornithischians, rare theropods and crocodylomorphs as well as rare amphibians, turtles, fish and advanced mammal-like reptiles (cynodont therapsids) including early mammals are known from this formation. Other fossil elements from this formation include petrified woods, phyllopod crustaceans (conchostacans or "clam shrimps"), insects, and trace fossils, principally tetrapod trackways, root casts, possible termitaria. The Clarens Formation is known to preserve silicified wood, plant remains, freshwater crustaceans, primitive bony fish, invertebrate trace fossils, rare dinosaurs (e.g. *Massospondylus*), crocodylomorphs, advanced cynodonts including early mammals (e.g. *Erythrotherium*), trackways of dinosaurs and mammals, coprolites as well as eggshell fragments. The Drakensberg Group consists of basaltic lava flows with minor interbedded terrestrial sandstones, mudrocks, pyroclastics (tuffs, agglomerates etc) containing charred tree trunks, other plant fossils (horsetails, conifers, cycads, bennettitales *et al.*, roots, pollens), trackways (small mammals, dinosaurs, invertebrates incl. arthropods, molluscs), rare vertebrate skeletal remains (bones, fish, possible amphibian remains, early mammals), crustaceans (conchostracans, notostracans, malacostracans, ostracods), insect wings, molluscs. However, due to the limited depth and nature of the proposed development, it is unlikely that significant palaeontological resources will be impacted by the proposed development.

### RECOMMENDATION:

**The heritage resources in the area proposed for development are sufficiently recorded.**

**Based on the available information, including the scale and nature of the proposed development, it is unlikely that any significant heritage resources will be impacted and as such it is recommended that no further heritage studies are required.**



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## APPENDIX 1

### List of heritage resources within the 20km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading
92712	SEU017	SAPPI TO ELLIOT AND UGIE 017	Building	Grade IIIa
92713	SEU018	SAPPI TO ELLIOT AND UGIE 018	Building	Grade IIIa
92714	SEU019	SAPPI TO ELLIOT AND UGIE 019	Burial Grounds & Graves	Grade IIIa
92715	SEU020	SAPPI TO ELLIOT AND UGIE 020	Building	Grade IIIa
92716	SEU021	SAPPI TO ELLIOT AND UGIE 021	Structures	Grade IIIa
92717	SEU022	SAPPI TO ELLIOT AND UGIE 022	Structures	Grade IIIa
92718	SEU023	SAPPI TO ELLIOT AND UGIE 023	Burial Grounds & Graves	Grade IIIa
25221	Craigmore 7		Rock Art	Grade IIIa
105695	UWW001	Ugie Waste Water Informal Cemetery	Burial Grounds & Graves	Grade IIIa

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## APPENDIX 2

### Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
3763	AIA	Cobus Dreyer	05/10/2007	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Diamond Prospecting on the Farm Saamwerk (Portion 14 Grootrivierwagendrif 29), Aliwal North, Eastern Cape:
4398	HIA	Len van Schalkwyk, Elizabeth Wahl	13/11/2007	Heritage Impact Assessment of Waste Water Treatment Works, Ugie, Eastern Cape Province, South Africa
7865	HIA	Frans Prins and Sian Hall	17/11/2010	CULTURAL HERITAGE IMPACT ASSESSMENT OF THE PROPOSED 132kV ESKOM POWERLINE FROM SAPPI TO ELLIOT AND UGIE SUBSTATIONS, EASTERN CAPE

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## APPENDIX 3 - Keys/Guides

### Key/Guide to Acronyms

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

### Full guide to Palaeosensitivity Map legend

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

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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 PALAEOONTOLOGICAL 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.

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**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

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- 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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