

HERITAGE SCREENER

		HERITAGE SCREENER
CTS Reference Number:	CTS21_250	
SAHRIS Ref:		Dealesville
Client:	Environamics	
Date:	August 2022	
Title:	DESKTOP HERITAGE SCREENING AND SENSITIVITY ASSESSMENT FOR THE DEALESVILLE SOLAR PROJECTS	Dealesville Solar Projects 10 20 km Figure 1a. Satellite map indicating the location of the proposed development in the Free State Province
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1. Proposed Development Summary

TBA

2. Application References

Name of relevant heritage authority(s)	SAHRA
Name of decision making authority(s)	DFFE

3. Property Information

Latitude / Longitude	28°44'50.99"S 25°39'17.26"E
Erf number / Farm number	TBA
Local Municipality	Tokologo
District Municipality	Lejweleputswa
Province	Free State
Current Use	Agriculture
Current Zoning	Agriculture

4. Nature of the Proposed Development

Total Surface Area of development	TBA
Depth of excavation (m)	TBA
Height of development (m)	TBA



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-
Х	a) exceeding 5 000m² 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

TBA



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



Figure 1b Overview Map. Satellite image (2022) indicating the proposed development area at closer range.



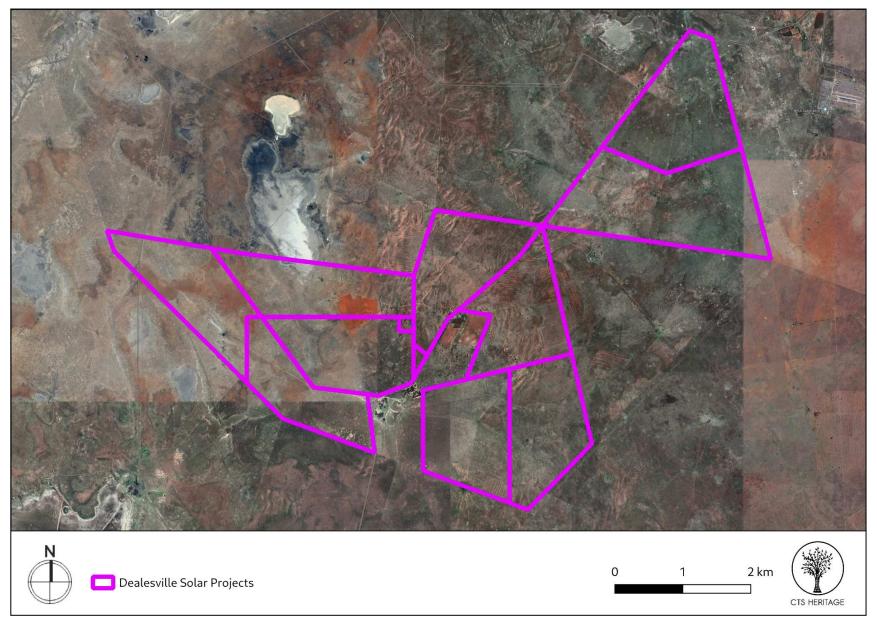


Figure 1c. Overview Map. Satellite image (2019) indicating the proposed development area at closer range.



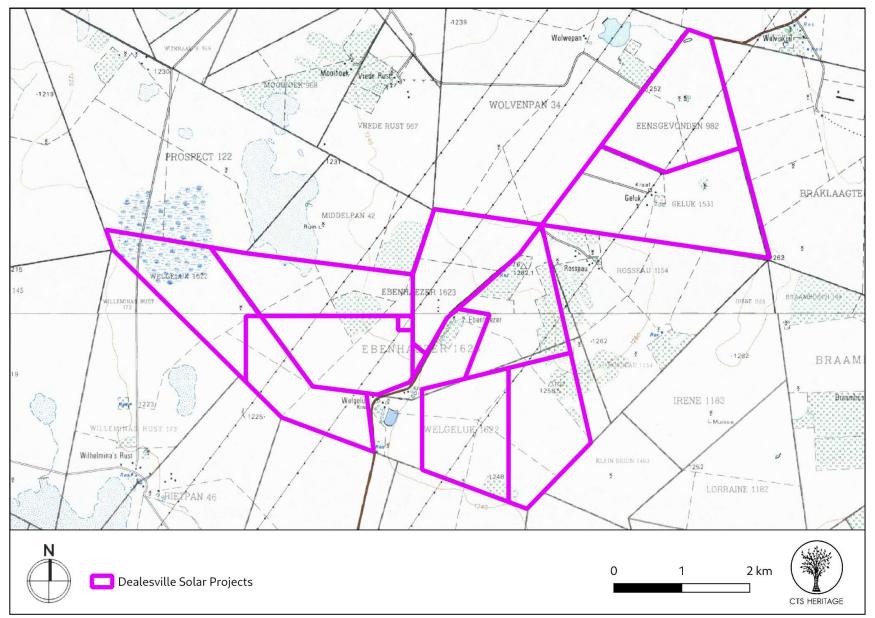


Figure 1d. Overview Map. 1:50 000 Topo Map for the development area



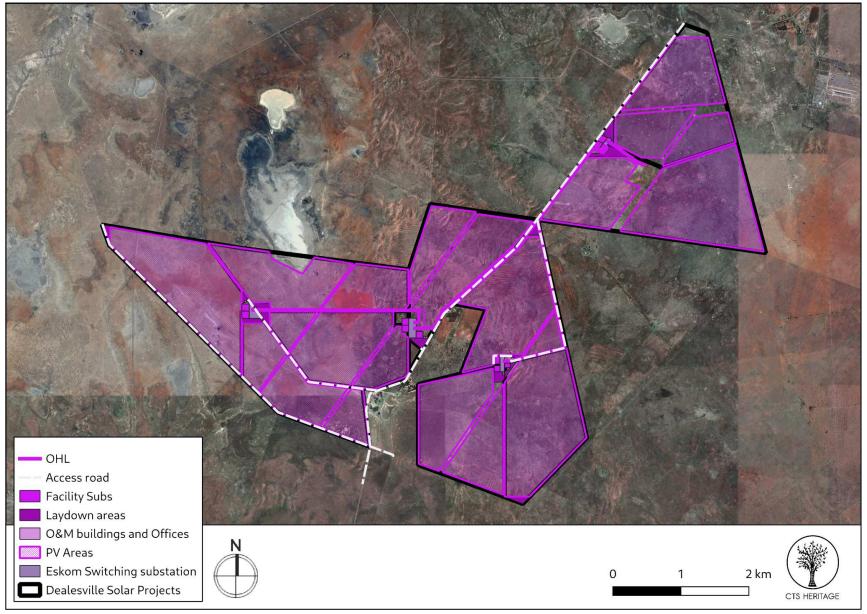


Figure 1e. Overview Map. Proposed Layout

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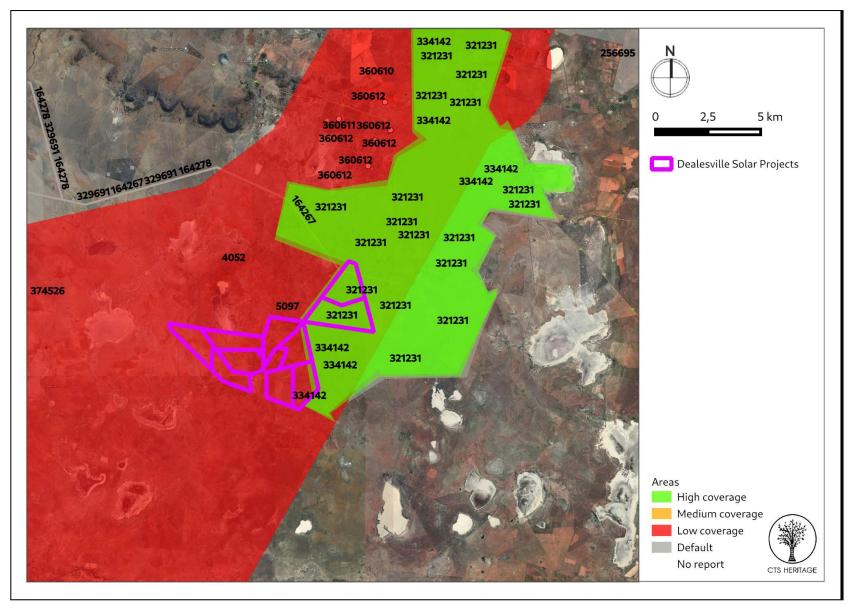


Figure 2a. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area, with SAHRIS NIDS indicated. Please see Appendix 2 for a full reference list.



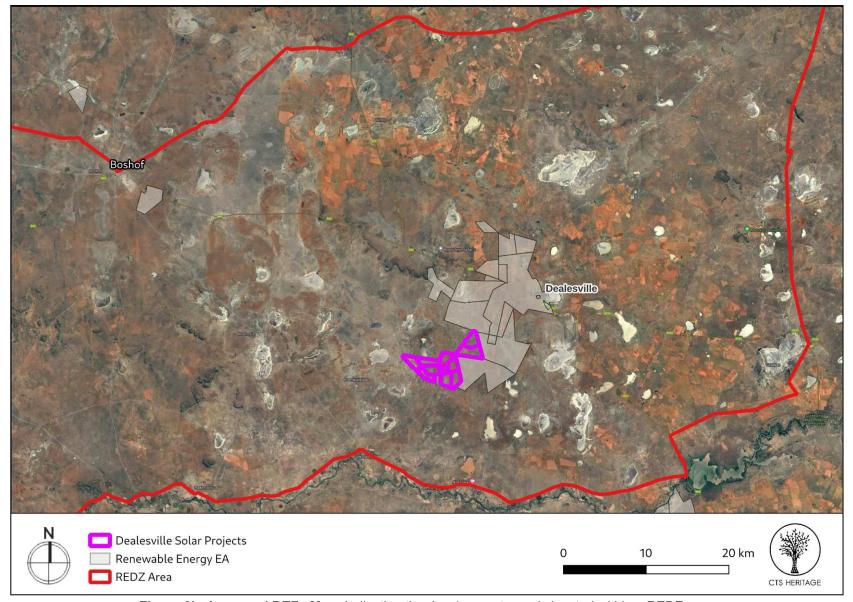


Figure 2b. Approved REFs Map. Indicating the development area is located within a REDZ area



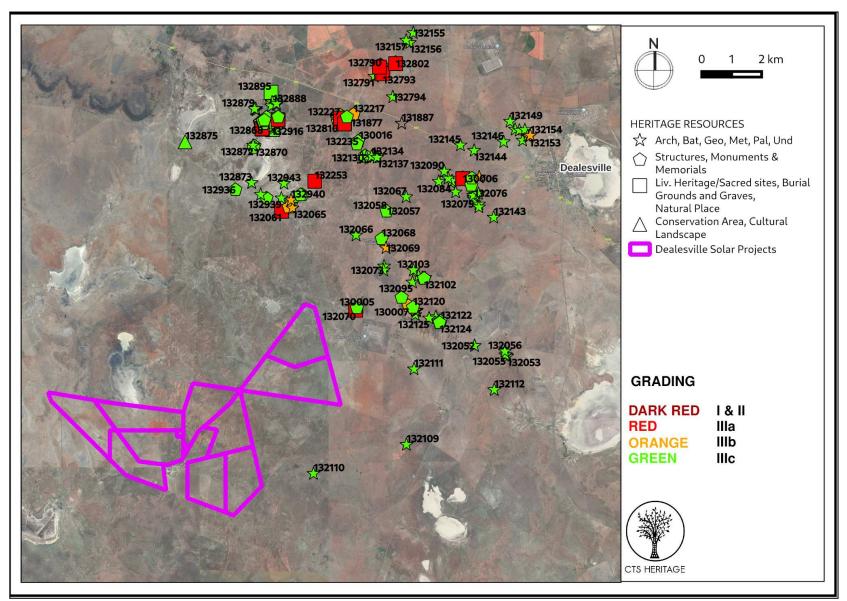


Figure 3a. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.



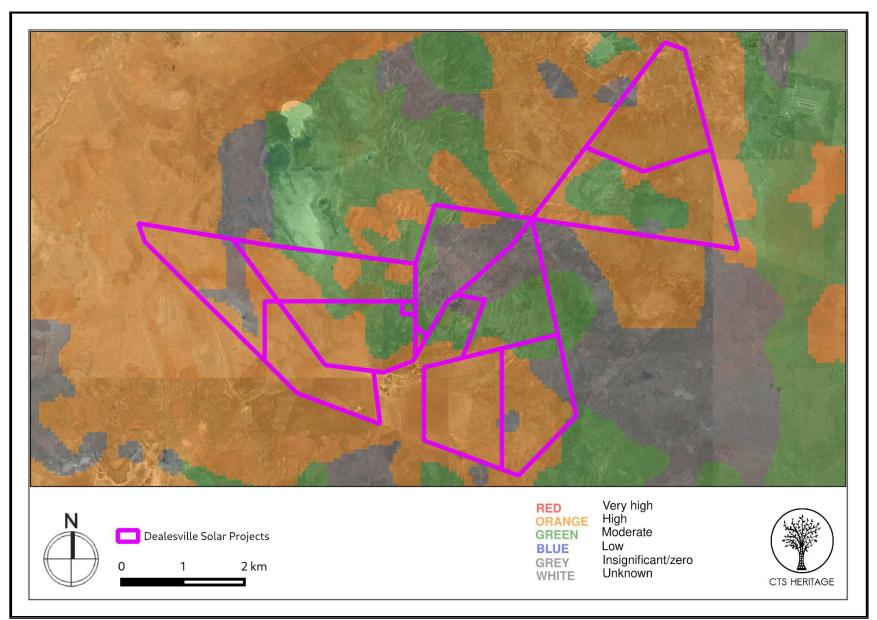


Figure 4. Palaeosensitivity Map. Indicating Zero, Moderate and High fossil sensitivity underlying the study area. Please See Appendix 3 for a full guide to the legend.



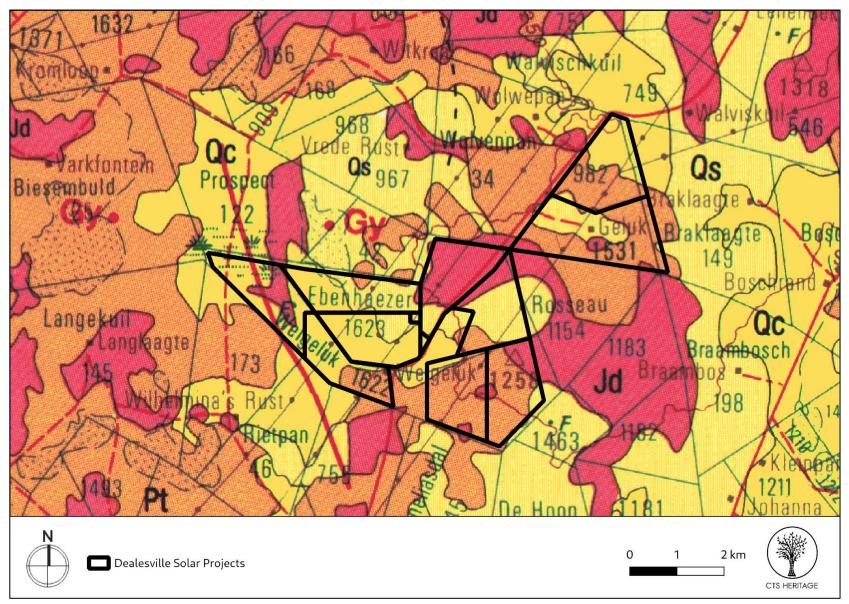


Figure 5. Geology Map. Indicating the underlying geology across the study area through overlaying the geology maps from the CGS series 2824 Kimberley (Jd: Jurassic Dolerite, Qs and Qc: Quaternary Sands (Gordonia Formation) and Pt: Tierberg Formation of the Ecca Group sediments)



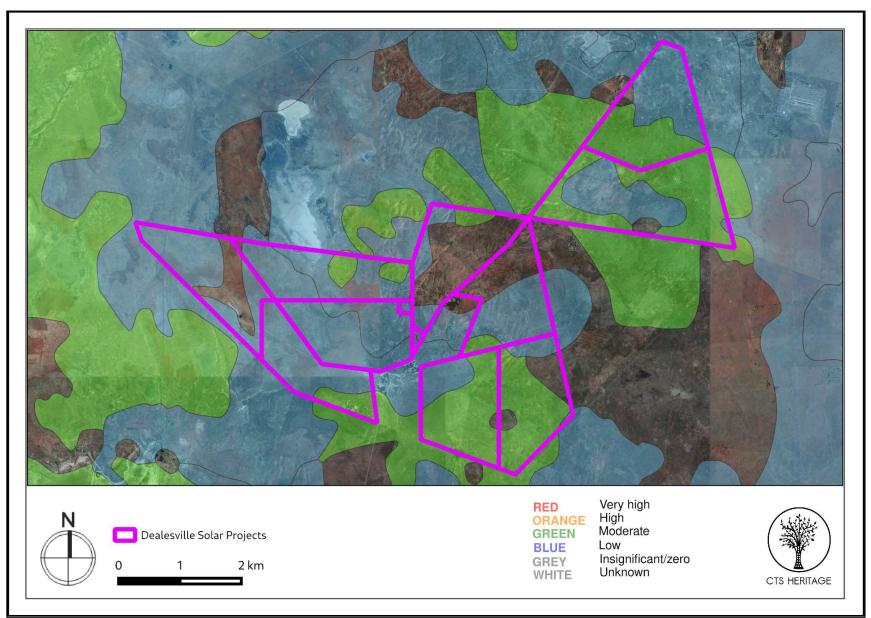


Figure 6. Updated Palaeosensitivity Map. Indicating Zero, Low and Moderate palaeontological sensitivity underlying the study area



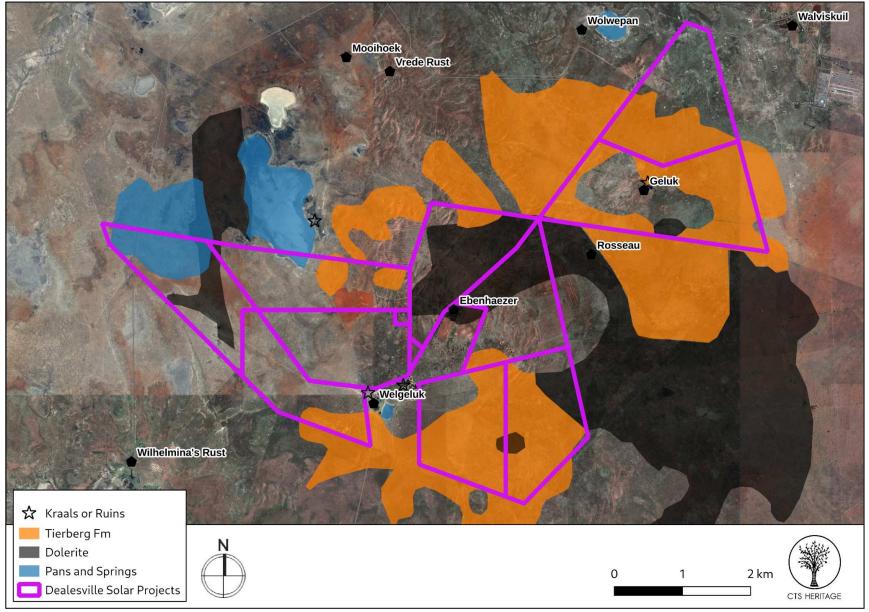


Figure 7. Combined Heritage Sensitivity Map.

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8. Heritage statement and character of the area

Background

CTS Heritage has been requested to draft a heritage screening and sensitivity analysis for the proposed Dealesville Solar Projects located approximately 20km southwest of Dealesville in between Kimberley and Beaufort West. Unfortunately, as no direct archaeological or palaeontological survey information is available for the development area, all indications of sensitivity have to be inferred from the results of archaeological and palaeontological assessments completed in the vicinity and known archaeological and palaeontological sites in the area. We have also used information from satellite imagery as well as the 1:50 000 topo map to identify areas that may have heritage sensitivity. Orton (2015 SAHRIS ID 321231) completed a comprehensive Heritage Impact Assessment located immediately north of the study area and his results provide excellent insight into the heritage sensitivities of this study area (Figure 2). All of the findings of Orton (2015) have been mapped along with all other known heritage resources in close proximity to the study area in Figure 3 and 3a, and are listed in Appendix 1). His assessment is referred to extensively below.

Archaeological sensitivity

Scattered throughout the Karoo is evidence of historic and prehistoric occupation in the form of Early, Middle and Later Stone Age lithics and other material remains. The descendants of the historic and prehistoric occupants of the region are found in the indigeous Khoe and San, as well as modern inhabitants of the area. According to Orton (2015 SAHRIS ID 321231), "The general vicinity of Dealesville is very flat with extensive tracts of open grassland and numerous large pans. However, close to and southwest of the town there are a number of rocky koppies. The soil is orange, coloured by the dolerite that breaks the surface in many areas. Calcrete is also common just beneath the surface with exposures visible at times where the cover sands have eroded away. The landscape is quite strongly characterised by electrical infrastructure..."

Orton (2015) also notes that "There are some important fossil sites in the greater region and thus the chance of finding material of significance does exist. Florisbad is a very well-known fossil locality lying some 35 km to the east of the present study area. Here an early human cranium was recovered in 1932 (Dreyer 1935; Rightmire 1978) while mid-Pleistocene fauna and Middle Stone Age stone artefacts have also been recovered (Brink 1987; Dreyer 1938). Because of its importance in terms of both palaeontology and archaeology, Florisbad has been declared a Provincial Heritage Site (SAHRIS n.d.). Erfkroon is another important fossil site that lies along the Modder River some 5 km southwest of the southern end of the present study area. The fossils occur over a large area and are revealed in erosion gullies. Stone artefacts from the earlier part of the Middle Stone Age (MSA) and from the Later Stone Age (LSA) have also been found associated with the bones in places (Churchill et al. 2000)."

Tomose (2013) notes that the earliest evidence of Iron Age communities in the Free State is documented in the south-eastern region of the Free State where they came into contact with the San people. Most of the existing evidence about the Iron Age communities in the Free State dates to the 16th and 18th when they moved across the Vaal River coming to contact with the San hunter-gather people (Klatzow 1994). Numerous stone wall structures and pottery dating to this period have been recorded and lie on the frontier zone where the San people come into contact with agro-pastoralist (Thorp 1996). Stonewalls are one major characteristic of the Iron Age people. However, they are not the only characteristic of features of the Iron Age. Huffman (1982) described cattle dug, both vitrified and unverified, as one of the Iron Age traits. He also included pits and burials, with some located inside the cattle kraals (ibid)." According to Orton (2015), "Stone-walled settlements dating to the Iron Age have been widely documented in parts of the Free State and adjacent Northern Cape (Maggs 1976a, 1976b) but the Iron Age appears to be absent from the immediate study area and its surrounds. Later Stone Age stone-built dwellings occur along the Riet River to the west (Humphreys 1972, 2009). With the exception of the rich MSA deposits of Florisbad (Kuman et al. 1999) and the MSA and LSA stone artefact assemblages from Erfkroon (Churchill et al. 2000), archaeological resources appear to be quite rare in this flat, open and well-grassed landscape." Webley (2010) surveyed an area to the east of the present study area and reported a complete absence of any archaeological material of any sort. She further noted that stone suitable for the manufacture of flaked tools was not present and that the quantity of other rock available on the surface was insufficient to allow for the construction of stone dwellings. This can be explained by the preference to settle close to water sources that is prevalent across much of the relatively dry interio



Findings of nearby assessments

In Orton's assessment conducted immediately north of the study area, he identified a number of artefact scatters related to the MSA, while even more widespread were individual MSA artefacts (2015). Orton (2015) notes that these were all found in areas where the surface had become denuded and often eroded and this suggests that these artefacts are generally beneath the surface sands and could in fact be far more common than is expected. The context is essentially secondary, with the artefact accumulations having been the result of erosion, deflation and reburial; they could thus be referred to as background scatter. Orton (2015) also notes that the majority of these artefacts were identified close to the rockier part of the landscape. Orton (2015) also identified artefact scatters pertaining to the LSA however these were less common on the landscape. They tended far more strongly to be associated with features on the landscape such as springs, pans and hills. Orton (2015) also noted scatters of historical artefacts that were generally associated with sites that included some structural remains. In his assessment, Orton (2015) also identified a number of ruined dry stone-walled structures. Most of which are historical in nature.

Orton (2015) notes that based on his desktop assessment, "Rock engravings occur widely in the interior of South Africa where suitable rock exists. Many sites are located in the Free State with the National Museum, Bloemfontein (2014) listing numerous examples that may be visited by the public." In his field assessment, Orton (2015) identified a number of rock engravings in the rockier parts of the landscape. These relate to both the naturalistic and geometric rock art traditions said to have been made by the Bushmen and Khoekhoen respectively (Orton, 2015). Often this kind of rock art is associated with dolerite ridge exposures.

By the end of the 17th Century, the Trekboer movement had begun to cross this landscape with land claimed by Dutch farmers. One such farm was purchased for the establishment of Bloemfontein. Though historically a !Orana settlement, and then a Boer settlement, Bloemfontein was officially founded in 1846 as a British army fort within the broader area which was occupied by various groups of peoples including the !Orana (so-called "Korana" of the IHŏall'aes, IHūdill'aes, Einill'aes and others), Cape Colony Trek Boers, Griqua (at that time known as *Baasters*), and Barolong. Dealesville was established on the Farm Klipfontein and was proclaimed a township in 1899 and achieved municipal status in 1914. Structures relating to the early trekboer settlement of this area may still be present on the landscape and these may have heritage significance. Orton (2015) also notes that "The second Anglo-Boer War (1899-1902) played a significant role in South African History, particularly in the interior of the country. Many battles were fought between the British and Boer forces... Graves, graveyards and memorials across the central interior of South Africa serve as reminders of the war."

Orton (2015) notes that the vicinity of Dealesville does not have a well-developed cultural landscape. Farmsteads are widely scattered and are not linked by any features such as tree lines. Tree lines, in fact, are very rare in the area. It is therefore not likely that the study area contributes to a significant cultural landscape however, this will be determined with greater accuracy during the recommended field assessment process.

Palaeontology

According to the SAHRIS Palaeosensitvity Map (Figure 4), the study area is underlain by sediments of zero, moderate and high palaeontological sensitivity. However, this map requires updating as it does not reflect the actual palaeontological sensitivity of the geology as per the PalaeoTechnic Report completed for the Free State Province by Groenwald (2014, SAHRIS NID 163080). According to the extract from the CGS Map for Kimberley 2824, the sediments underlying the study area include Jurassic Dolerite which has no palaeontological sensitivity, Quaternary Sands of the Gordonia Formation and sediments of the Tierberg Formation of the Ecca Group. The palaeontological sensitivity of the Quaternary Sands sediments derives from the likelihood of findings archaeological deposits preserved in these sediments and as such, is dealt with in the paragraphs above.

According to Groenewald (2014), in the Tierberg Formation, "Ecca Sea traces are among the most diverse and best preserved non-marine ichnofaunas from Gondwana. There have been doubtful stromatolites also recorded." Fossil heritage from the Tierberg Formation includes "Disarticulated microvertebrate remains (e.g. fish teeth, scales), sponge spicules, spare vascular plants (leaves, petrified wood), moderate diversity trace fossil assemblages (plus variety of additional taxa such as large ribbed pellet burrows, arthropod scratch burrows, Siphonichnus etc)."



According to the assessment completed by Rossouw (2015, SAHRIS NID 334142), the area immediately to the north of this study area is characterised as lying "within the outcrop belt of the Middle Permian Tierberg Formation (Ecca Group) which is a generally poorly fossiliferous shale. It is thus only of moderate palaeontological sensitivity. The main fossils expected in the Tierberg Formation are trace fossils, fragmentary fish remains and, in the upper parts of the formation, plant remains that include petrified wood and leaves. The diversity of the assemblages is generally low. Dolerite dykes and sills occur throughout the area and are not palaeontologically significant (Rossouw 2014). Quaternary alluvial deposits along major river courses and deposits related to springs and pan dunes are of high palaeontological sensitivity. Fossils found in these deposits include collections of mammalian teeth and bones, coprolites, freshwater molluscs and plant microfossils, as well as isolated specimens and even fossilised hyena burrows. Particularly notable are the banks of the Modder River. Fossil hyena lairs can also be found away from present river valleys and might be associated with pan dunes and spring deposits. In contrast, sediments related to ephemeral water courses or deposits accumulated through sheet wash have low sensitivity."

An updated and more realistic palaeontological sensitivity map (Figure 6) has been developed which indicates that the majority of the study area is underlain by sediments of low palaeontological sensitivity (Gordonia Formation and Quaternary Sands) shaded in blue. The primary sensitivity of these deposits is archaeological in nature due to their recent age. There are small outcrops of Tierberg Formation sediments (green) which will require a field inspection by a palaeontologist to identify any significant fossil material preserved here.

Summary

Areas that may have heritage sensitivity therefore include:

Key	Feature	Potential Sensitivity	Recommended Mitigation
Stars	Kraals and stone-walled ruins	Archaeology	Field assessment by an archaeologist required to determine cultural significance. Impact must be avoided
Orange	Tierberg Formation deposits	Palaeontology	Field assessment by an paleontologist required to identify fossil exposures that must be avoided or excavated
Black Pentagon	Structures	Historic	Field assessment by an archaeologist required to determine cultural significance. Impact must be avoided.
Green	Hills	Archaeology	Field assessment by an archaeologist required to determine presence of archaeology and its cultural significance.
Blue	Pans and Springs	Archaeology	Field assessment by an archaeologist required to determine presence of archaeology and its cultural significance. Impact must be avoided
Black	Dolerite	Archaeology	Field assessment by an archaeologist required to determine presence of rock art and its cultural significance. Impact must be avoided
Clear	Unknown	Unknown	Field assessment by an archaeologist required to determine presence of archaeology and its cultural significance.



We have used available information from the 1:50 000 Topo Maps for the area and GoogleEarth Satellite Imagery to map some of these sensitive archaeological areas in Figure 7 however, this map is not exhaustive and MUST BE GROUND-TRUTHED by an archaeologist. Furthermore, there may well be areas of archaeological sensitivity that we have not managed to identify on these maps which may be identified during field assessment or during construction-related excavation activities.

The heritage, archaeology and palaeontology maps have been combined in Figure 7.

RECOMMENDATIONS AND CONCLUSIONS

As it is possible that any proposed development within the study area may negatively impact on significant heritage resources, it is recommended that a Heritage Impact Assessment that satisfies section 38(3) of the NHRA is completed.

It is recommended that the sensitive areas identified in this screening assessment are ground-truthed and assessed for their cultural significance following which appropriate recommendations must be made.

The areas that are not determined to be sensitive in Figure 7 above must be surveyed by an archaeologist for archaeological remains that may be impacted by development activities. It is important to note that the areas marked with no colour in Figure 8 are marked as such because nothing is known about the resources that may exist there, not because no resources exist there. As such, the presence of archaeological resources in these areas remains to be determined.

The Heritage Impact Assessment completed will propose appropriate mitigation recommendations that are informed by the cultural significance of the resources identified and ground-truthed on site.



APPENDIX 1

List of heritage resources within close proximity to the development area from SAHRIS

Site ID	Site no	Full Site Name	Site Type	Grading
131877	ESN001	Edison PV	Stone walling	
131878	ESN002	Edison PV	Structures	
131879	ESN003	Edison PV	Structures	
131880	ESN004	Edison PV	Structures	
131881	ESN005	Edison PV	Structures	
131882	ESN006	Edison PV	Burial Grounds & Graves	
131883	ESN007	Edison PV	Structures	
131884	ESN008	Edison PV	Structures	
131885	ESN009	Edison PV	Burial Grounds & Graves	
131886	ESN010	Edison PV	Burial Grounds & Graves	
131887	ESN011	Edison PV	Artefacts	
131889	ESN013	Edison PV	Structures	
131890	ESN014	Edison PV	Artefacts	
131891	ESN015	Edison PV	Burial Grounds & Graves	
131892	ESN016	Edison PV	Structures	
131894	ESN018	Edison PV	Deposit, Artefacts	



131896	ESN020	Edison PV	Structures	
131897	ESN021	Edison PV	Artefacts	
131898	ESN022	Edison PV	Structures	
131899	ESN023	Edison PV	Rock Art	
131900	ESN024	Edison PV	Structures	
131901	ESN025	Edison PV	Structures, Artefacts	
131902	ESN026	Edison PV	Burial Grounds & Graves	
131903	ESN027	Edison PV	Structures	
131904	ESN028	Edison PV	Burial Grounds & Graves	
131905	ESN029	Edison PV	Artefacts	
131906	ESN030	Edison PV	Structures	
131907	ESN031	Edison PV	Structures	
131908	ESN032	Edison PV	Burial Grounds & Graves	
131909	ESN033	Edison PV	Structures	
132052	DLS001	Dealesville	Artefacts	Grade IIIc
132053	DLS002	Dealesville	Rock Art	Grade IIIc
132054	DLS003	Dealesville	Artefacts	Grade IIIc
132055	DLS004	Dealesville	Artefacts	Grade IIIc
132056	DLS005	Dealesville	Rock Art	Grade IIIc
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132057	DLS006	Dealesville	Rock Art	Grade IIIc
132058	DLS007	Dealesville	Structures	Grade IIIc
132059	DLS008	Dealesville	Structures	Grade IIIc
132060	DLS009	Dealesville	Artefacts	Grade IIIc
132061	DLS010	Dealesville	Burial Grounds & Graves	Grade IIIa
132062	DLS011	Dealesville	Structures	Grade IIIb
132065	DLS014	Dealesville	Stone walling	Grade IIIb
132066	DLS015	Dealesville	Artefacts	Grade IIIc
132067	DLS016	Dealesville	Artefacts	Grade IIIc
132068	DLS017	Dealesville	Structures	Grade IIIc
132069	DLS018	Dealesville	Stone walling	Grade IIIb
132070	DLS019	Dealesville	Burial Grounds & Graves	Grade IIIa
132071	DLS020	Dealesville	Building	Grade IIIc
132072	DLS021	Dealesville	Artefacts	Grade IIIc
132073	DLS022	Dealesville	Artefacts	Grade IIIc
132074	DLS023	Dealesville	Artefacts	Grade IIIc
132075	DLS024	Dealesville	Stone walling	Grade IIIc
129110	Lovedale		Archaeological	
132076	DLS025	Dealesville	Artefacts	Grade IIIc
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129111	Damvlei		Archaeological	
132077	DLS026	Dealesville	Archaeological	Grade IIIc
132078	DLS027	Dealesville	Artefacts	Grade IIIc
132079	DLS028	Dealesville	Stone walling	Grade IIIc
132081	DLS030	Dealesville	Artefacts	Grade IIIc
132084	DLS031	Dealesville	Artefacts	Grade IIIc
132087	DLS032	Dealesville	Artefacts	Grade IIIc
132088	DLS033	Dealesville	Artefacts	Grade IIIc
132089	DLS034	Dealesville	Artefacts	Grade IIIc
132090	DLS035	Dealesville	Artefacts	Grade IIIc
132091	DLS036	Dealesville	Rock Art	Grade IIIc
132092	DLS037	Dealesville	Burial Grounds & Graves	Grade IIIa
132093	DLS038	Dealesville	Artefacts	Grade IIIc
132094	DLS039	Dealesville	Building	Grade IIIb
132095	DLS040	Dealesville	Artefacts	Grade IIIc
132096	DLS041	Dealesville	Artefacts	Grade IIIc
132097	DLS042	Dealesville	Rock Art	Grade IIIb
132098	DLS043	Dealesville	Rock Art, Artefacts	Grade IIIc
132099	DLS044	Dealesville	Stone walling	Grade IIIc
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132102	DLS045	Dealesville	Structures	Grade IIIc
132103	DLS046	Dealesville	Artefacts	Grade IIIc
132104	DLS047	Dealesville	Artefacts	Grade IIIc
132105	DLS048	Dealesville	Rock Art	Grade IIIb
132106	DLS049	Dealesville	Rock Art	Grade IIIc
132107	DLS050	Dealesville	Rock Art	Grade IIIb
132108	DLS051	Dealesville	Rock Art	
132109	DLS052	Dealesville	Artefacts	Grade IIIc
132110	DLS053	Dealesville	Stone walling	Grade IIIc
132111	DLS054	Dealesville	Stone walling	Grade IIIc
132112	DLS055	Dealesville	Rock Art	Grade IIIc
132119	DLS062	Dealesville	Structures, Artefacts	Grade IIIc
132120	DLS063	Dealesville	Structures	Grade IIIc
132121	DLS064	Dealesville	Stone walling	Grade IIIc
132122	DLS065	Dealesville	Structures, Artefacts	Grade IIIc
132124	DLS066	Dealesville	Structures	Grade IIIc
132125	DLS067	Dealesville	Artefacts	Grade IIIc
132126	DLS068	Dealesville	Stone walling	Grade IIIc
132127	DLS069	Dealesville	Rock Art	Grade IIIc
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132128	DLS070	Dealesville	Rock Art	Grade IIIb
132129	DLS071	Dealesville	Rock Art	Grade IIIb
132130	DLS072	Dealesville	Stone walling	Grade IIIc
132131	DLS073	Dealesville	Artefacts	Grade IIIa
132132	DLS074	Dealesville	Structures	Grade IIIc
132133	DLS075	Dealesville	Artefacts	Grade IIIc
132134	DLS076	Dealesville	Rock Art	Grade IIIc
132135	DLS077	Dealesville	Rock Art	Grade IIIb
132136	DLS078	Dealesville	Rock Art	Grade IIIc
132137	DLS079	Dealesville	Artefacts	Grade IIIc
132138	DLS080	Dealesville	Structures	Grade IIIc
132139	DLS081	Dealesville	Structures	Grade IIIc
132141	DLS083	Dealesville	Artefacts	Grade IIIb
132142	DLS084	Dealesville	Artefacts	Grade IIIc
132143	DLS085	Dealesville	Artefacts	Grade IIIc
132144	DLS086	Dealesville	Artefacts	Grade IIIc
132145	DLS087	Dealesville	Artefacts	Grade IIIc
132146	DLS088	Dealesville	Artefacts	Grade IIIc
132147	DLS089	Dealesville	Artefacts	Grade IIIc
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DLS090	Dealesville	Stone walling	Grade IIIc
DLS091	Dealesville	Artefacts	Grade IIIc
DLS092	Dealesville	Stone walling	Grade IIIc
DLS093	Dealesville	Stone walling	Grade IIIc
DLS094	Dealesville	Stone walling	Grade IIIc
DLS095	Dealesville	Artefacts	Grade IIIb
DLS096	Dealesville	Artefacts	Grade IIIb
2825DA/Solar/ Farm Boschrand 148/ Site 019.	Artefacts	Artefacts	Ungraded
2825DA/Solar/ Farm Boschrand 148/ Site 020	Rock Engraving	Archaeological	Ungraded
2825DA/Solar/ Farm Constantia 751 / Site 070	Grave yard	Burial Grounds & Graves	
2825DA/Solar/ Farm Constantia 751 / Site 071	Archaeological site	Archaeological	Ungraded
2825DA/Solar/ Farm Constantia 751 / Site 072	Farm house ruins	Archaeological	Ungraded
2825DA/Solar/ Farm Constantia 751 / Site 074	Stone walling	Stone walling	Ungraded
WTVP001	Watt PV	Stone walling	Grade IIIb
2825DA/Solar/ Farm Leliehoek 748 / Site 078	Kraal	Archaeological	Ungraded
WTVP002	Watt PV	Structures	Grade IIIb
2825DA/Solar/ Farm Walviskuil / Site 079	Graveyard	Burial Grounds & Graves	Ungraded
2825DA/Solar/ Farm Walviskuil / Site 080	Farm werf	Structures	Ungraded
2825DA/Solar/ Farm Klipfontein 305 / Site 097	Grave	Burial Grounds & Graves	Ungraded
	DLS092 DLS093 DLS094 DLS095 DLS096 2825DA/Solar/ Farm Boschrand 148/ Site 019. 2825DA/Solar/ Farm Boschrand 148/ Site 020 2825DA/Solar/ Farm Constantia 751 / Site 070 2825DA/Solar/ Farm Constantia 751 / Site 071 2825DA/Solar/ Farm Constantia 751 / Site 071 2825DA/Solar/ Farm Constantia 751 / Site 072 2825DA/Solar/ Farm Constantia 751 / Site 074 WTVP001 2825DA/Solar/ Farm Leliehoek 748 / Site 078 WTVP002 2825DA/Solar/ Farm Walviskuil / Site 079 2825DA/Solar/ Farm Walviskuil / Site 080	DLS091 Dealesville DLS092 Dealesville DLS093 Dealesville DLS094 Dealesville DLS095 Dealesville DLS096 Dealesville 2825DA/Solar/ Farm Boschrand 148/ Site 019. Artefacts 2825DA/Solar/ Farm Boschrand 148/ Site 020 Rock Engraving 2825DA/Solar/ Farm Constantia 751 / Site 070 Grave yard 2825DA/Solar/ Farm Constantia 751 / Site 071 Archaeological site 2825DA/Solar/ Farm Constantia 751 / Site 072 Farm house ruins 2825DA/Solar/ Farm Constantia 751 / Site 074 Stone walling WTVP001 Watt PV 2825DA/Solar/ Farm Leliehoek 748 / Site 078 Kraal WTVP002 Watt PV 2825DA/Solar/ Farm Walviskuil / Site 079 Graveyard 2825DA/Solar/ Farm Walviskuil / Site 080 Farm werf	DLS091 Dealesville DLS092 Dealesville Stone walling DLS093 Dealesville Stone walling DLS094 Dealesville Stone walling DLS095 Dealesville Artefacts DLS096 Dealesville Artefacts DLS096 Dealesville Artefacts Archaeological Burial Grounds & Graves Archaeological site Archaeological Archaeological



2825DA/Solar/ Farm Doornrandjes 546 / Site 099	Farmhouse	Structures	Ungraded
WTVP003	Watt PV	Structures	Grade IIIc
2825DA/Solar/ Farm Doornrandjes 546 / Site 109	House ruins	Archaeological	Ungraded
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 888	Stone artefacts	Archaeological	
WTVP004	Watt PV	Artefacts	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 872	Grinding groove	Archaeological	Ungraded
WTVP005	Watt PV	Structures	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 907	Grinding hollow	Archaeological	Ungraded
WTVP006	Watt PV	Structures	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 870	Ruined stone kraal	Stone walling	Ungraded
WTVP007	Watt PV	Structures	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 897	Stone kraal	Stone walling	Ungraded
WTVP008	Watt PV	Burial Grounds & Graves	Grade IIIa
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886	Farm house ruins	Archaeological	Ungraded
WTVP009	Watt PV	Structures	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 900	House ruins	Archaeological	Ungraded
WTVP010	Watt PV	Structures	Grade IIIc
2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 912	Graveyard	Burial Grounds & Graves	Grade IIIc
WTVP011	Watt PV	Burial Grounds & Graves	Grade IIIa
	WTVP003 2825DA/Solar/ Farm Doornrandjes 546 / Site 109 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 888 WTVP004 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 872 WTVP005 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 907 WTVP006 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 870 WTVP007 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 897 WTVP008 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886 WTVP009 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 900 WTVP010 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 912	WTVP003 Watt PV 2825DA/Solar/ Farm Doornrandjes 546 / Site 109 House ruins 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 888 Stone artefacts WTVP004 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 872 Grinding groove WTVP005 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 907 Grinding hollow WTVP006 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 870 Ruined stone kraal WTVP007 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 897 Stone kraal WTVP008 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886 Farm house ruins WTVP009 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 900 House ruins WTVP010 Watt PV 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 912 Graveyard	WTVP003 Watt PV Structures 2825DA/Solar/ Farm Doornrandjes 546 / Site 109 House ruins Archaeological 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 888 Stone artefacts Archaeological WTVP004 Watt PV Artefacts 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 872 Grinding groove Archaeological WTVP005 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 907 Grinding hollow Archaeological WTVP006 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 870 Ruined stone kraal Stone walling WTVP007 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 897 Stone kraal Stone walling WTVP008 Watt PV Burial Grounds & Graves 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886 Farm house ruins Archaeological WTVP009 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886 Farm house ruins Archaeological WTVP009 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 886 Farm house ruins Archaeological WTVP009 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 900 House ruins Archaeological WTVP010 Watt PV Structures 2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 912 Graveyard Burial Grounds & Graves



130019	2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 910	Grave	Burial Grounds & Graves	Grade IIIc
132233	WTVP012	Watt PV	Burial Grounds & Graves	Grade IIIa
132235	WTVP014	Watt PV	Structures	Grade IIIc
130022	2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 881	Grave	Burial Grounds & Graves	Grade IIIc
132236	WTVP015	Watt PV	Artefacts	Grade IIIb
130023	2825DA/ Electrical infrastructure/ Farm Cornelia 1550/Site 929	Stone dam	Archaeological	Ungraded
132237	WTVP016	Watt PV	Burial Grounds & Graves	Grade IIIa
132238	WTVP017	Watt PV	Structures	Grade IIIb
132240	WTVP019	Watt PV	Artefacts	Grade IIIc
132243	WTVP021	Watt PV	Structures	Grade IIIc
132244	WTVP022	Watt PV	Artefacts	Grade IIIc
132245	WTVP023	Watt PV	Structures	Grade IIIc
132247	WTVP024	Watt PV	Rock Art	Grade IIIc
132248	WTVP025	Watt PV	Structures, Artefacts	Grade IIIc
132249	WTVP026	Watt PV	Burial Grounds & Graves	Grade IIIa
132250	WTVP027	Watt PV	Burial Grounds & Graves	Grade IIIa
132251	WTVP028	Watt PV	Structures	
132252	WTVP029	Watt PV	Artefacts	Grade IIIc
132253	WTVP030	Watt PV	Burial Grounds & Graves	Grade IIIa



WTVP031	Watt PV	Rock Art	Grade IIIb
WTVP032	Watt PV	Rock Art	Grade IIIc
WTVP033	Watt PV	Structures	Grade IIIc
WTVP034	Watt PV	Structures	Grade IIIc
WTVP035	Watt PV	Burial Grounds & Graves	Grade IIIa
WTVP036	Watt PV	Structures	Grade IIIc
132744 MRN001		Stone walling	Grade IIIb
132747 MRN002		Structures	Grade IIIb
MRN003	Marconi	Structures	
MRN004	Marconi	Artefacts	Grade IIIc
32790 MPV 001		Structures, Artefacts	Grade IIIc
MPV 002	Maxwell PV	Artefacts	Grade IIIc
MPV 003	Maxwell PV	Burial Grounds & Graves	Grade IIIa
MPV 004	Maxwell PV	Burial Grounds & Graves	Grade IIIa
MPV 005	Maxwell PV	Artefacts	Grade IIIc
MPV 006	Maxwell PV	Structures	Grade IIIc
MPV 007	Maxwell PV	Structures	Grade IIIc
MPV 008	Maxwell PV	Structures	Grade IIIc
MPV 009	Maxwell PV	Burial Grounds & Graves	Grade IIIa
	WTVP032 WTVP033 WTVP034 WTVP035 WTVP036 MRN001 MRN002 MRN003 MRN004 MPV 001 MPV 002 MPV 003 MPV 004 MPV 005 MPV 006 MPV 007 MPV 008	WTVP032 Watt PV WTVP033 Watt PV WTVP034 Watt PV WTVP035 Watt PV WTVP036 Watt PV MRN001 Marconi MRN002 Marconi MRN003 Marconi MRN004 Marconi MPV 001 Maxwell PV MPV 002 Maxwell PV MPV 003 Maxwell PV MPV 004 Maxwell PV MPV 005 Maxwell PV MPV 006 Maxwell PV MPV 007 Maxwell PV MPV 008 Maxwell PV	WTVP032 Watt PV Rock Art WTVP033 Watt PV Structures WTVP034 Watt PV Structures WTVP035 Watt PV Burial Grounds & Graves WTVP036 Watt PV Structures MRN001 Marconi Stone walling MRN002 Marconi Structures MRN003 Marconi Structures MRN004 Marconi Artefacts MPV 001 Maxwell PV Structures, Artefacts MPV 002 Maxwell PV Burial Grounds & Graves MPV 003 Maxwell PV Burial Grounds & Graves MPV 004 Maxwell PV Burial Grounds & Graves MPV 005 Maxwell PV Artefacts MPV 006 Maxwell PV Structures MPV 007 Maxwell PV Structures MPV 008 Maxwell PV Structures



132801	MPV 010	Maxwell PV	Structures	Grade IIIc
132802	MPV 011	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132803	MPV 012	Maxwell PV	Stone walling	Grade IIIb
132804	MPV 013	Maxwell PV	Structures	Grade IIIb
132805	MPV 014	Maxwell PV	Archaeological	Grade IIIc
132806	MPV 015	Maxwell PV	Archaeological	Grade IIIc
132807	132807 MPV 016		Archaeological	Grade IIIc
132808 MPV 017		Maxwell PV	Structures	Grade IIIc
132809	132809 MPV 018		Structures	Grade IIIc
132810	MPV 019	Maxwell PV	Structures	
132811	MPV020	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132812	MPV021	Maxwell PV	Structures	Grade IIIc
132813	MPV022	Maxwell PV	Structures	Grade IIIc
132814	MPV023	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132815	MPV024	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132821	MPV026	Maxwell PV	Archaeological	Grade IIIc
132823	MPV027	Maxwell PV	Artefacts	Grade IIIb
132824	MPV028	Maxwell PV	Artefacts	Grade IIIc
132826	MPV029	Maxwell PV	Artefacts	Grade IIIc
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132829	MPV030	Maxwell PV	Artefacts	Grade IIIc
132830	MPV031	Maxwell PV	Burial Grounds & Graves	Grade IIIc
132831	132831 MPV032		Artefacts	Grade IIIc
132832 MPV033		Maxwell PV	Artefacts	Grade IIIa
132833	132833 MPV034		Artefacts	Grade IIIc
132834	132834 MPV035		Artefacts	Grade IIIc
132835 MPV036		Maxwell PV	Structures	Grade IIIb
132839 MPV038		Maxwell PV	Deposit, Artefacts	Grade IIIc
132841	132841 MPV040		Deposit	
132855	MPV041	Maxwell PV	Structures	Grade IIIc
132856	MPV042	Maxwell PV	Structures	Grade IIIc
132857	MPV043	Maxwell PV	Artefacts	Grade IIIc
132858	MPV044	Maxwell PV	Structures	Grade IIIc
132859	MPV045	Maxwell PV	Structures	Grade IIIc
132860	MPV046	Maxwell PV	Rock Art	Grade IIIc
132861	MPV047	Maxwell PV	Structures	Grade IIIc
132862	MPV048	Maxwell PV	Artefacts	Grade IIIc
132863	MPV049	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132864	MPV050	Maxwell PV	Structures	Grade IIIc
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132865	MPV051	Maxwell PV	Burial Grounds & Graves	Grade IIIa
132868	MPV052	Maxwell PV	Structures	Grade IIIc
132869	MPV053	Maxwell PV	Structures	Grade IIIc
132870 MPV054		Maxwell PV	Structures	Grade IIIc
132871	MPV055	Maxwell PV	Structures	Grade IIIc
132872	MPV056	Maxwell PV	Deposit	Grade IIIc
132873 MPV057		Maxwell PV	Artefacts	Grade IIIc
132874 MPV058		Maxwell PV	Structures	Grade IIIc
132875	MPV059	Maxwell PV	Cultural Landscape	Grade IIIc
132876	MPV060	Maxwell PV	Deposit	Grade IIIc
132877	MPV061	Maxwell PV	Deposit	Grade IIIc
132878	132878 MPV062 Max		Deposit	Grade IIIc
132879	MPV063	Maxwell PV	Deposit	Grade IIIc
132880	MPV064	Maxwell PV	Structures	Grade IIIc
132881	MPV065	Maxwell PV	Structures	Grade IIIc
132882	MPV066	Maxwell PV	Structures	Grade IIIc
132883	MPV067	Maxwell PV	Structures	Grade IIIc
132884	MPV068	Maxwell PV	Structures	Grade IIIc
132885	MPV069	Maxwell PV	Burial Grounds & Graves	Grade IIIa
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132886	MPV070		Structures	Grade IIIc
132887	MPV071	Maxwell PV	Structures	Grade IIIc
132888	132888 MPV072		Structures	Grade IIIc
132889	MPV073	Maxwell PV	Structures, Artefacts	Grade IIIc
132890	MPV074	Maxwell PV	Artefacts	Grade IIIc
132891	MPV075	Maxwell PV	Artefacts	Grade IIIc
132892	132892 MPV076		Artefacts	Grade IIIc
132893	132893 MPV077		Artefacts	Grade IIIc
132894	132894 MPV078		Structures	Grade IIIc
132895	2895 MPV079		Burial Grounds & Graves	Grade IIIc
132896	132896 MRN005		Archaeological	Grade IIIc
132897	MRN006	Marconi	Structures	Grade IIIc
132898	MRN007	Marconi	Structures	Grade IIIc
132899	MRN008	Marconi	Structures	Grade IIIc
132900	MRN009	Marconi	Burial Grounds & Graves	Grade IIIa
132901	MRN010	Marconi	Structures	Grade IIIc
132902	MRN011	Marconi	Structures	Grade IIIc
132903	MRN012	Marconi	Burial Grounds & Graves	Grade IIIa
132904	MRN013	Marconi	Burial Grounds & Graves	Grade IIIa
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132905	MRN014	Marconi	Structures	Grade IIIc
132907	MRN016	Marconi	Structures	Grade IIIc
132908	MRN017	Marconi	Artefacts	Grade IIIb
132909	MRN018	Marconi	Artefacts	Grade IIIc
132910	MRN019	Marconi	Artefacts	Grade IIIc
132911	MRN020	Marconi	Artefacts	Grade IIIc
132912	132912 MRN021		Burial Grounds & Graves	Grade IIIc
132913	132913 MRN022		Artefacts	Grade IIIc
132914	132914 MRN023		Artefacts	Grade IIIa
132915	32915 MRN024		Artefacts	Grade IIIc
132916	132916 MRN025		Artefacts	Grade IIIc
132917	MRN026	Marconi	Structures	Grade IIIb
132919	MRN028	Marconi	Deposit, Artefacts	Grade IIIc
132921	MRN030	Marconi	Deposit	Grade IIIc
132922	MRN031	Marconi	Structures	Grade IIIc
132923	MRN032	Marconi	Structures	Grade IIIc
132924	MRN033	Marconi	Artefacts	Grade IIIc
132925	MRN034	Marconi	Structures	Grade IIIc
132926	MRN035	Marconi	Structures	Grade IIIc
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132927	MRN036	Marconi	Rock Art	Grade IIIc
132928	MRN037	Marconi	Structures	Grade IIIc
132929	MRN038	Marconi	Structures, Artefacts	Grade IIIc
132930	MRN039	Marconi	Burial Grounds & Graves	Grade IIIa
132931	MRN040	Marconi	Structures	Grade IIIc
132932	MRN041	Marconi	Burial Grounds & Graves	Grade IIIa
132933	132933 MRN042		Structures	Grade IIIc
132934	132934 MRN043		Structures	Grade IIIc
132935	132935 MRN044		Artefacts	Grade IIIc
132936	MRN045	Marconi	Structures	Grade IIIc
132937	132937 MRN046		Transport infrastructure	Grade IIIc
132938	MRN047	Marconi	Artefacts	Grade IIIc
132939	MRN048	Marconi	Artefacts	Grade IIIc
132940	MRN049	Marconi	Artefacts	Grade IIIb
132941	MRN050	Marconi	Structures	Grade IIIc
132942	MRN051	Marconi	Structures	Grade IIIc
132943	MRN052	Marconi	Artefacts	Grade IIIc
132944	MRN053	Marconi	Structures	Grade IIIc
132945	MRN054	Marconi	Structures	Grade IIIc
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132946	MRN055	Marconi	Structures	Grade IIIc
132947	MRN056	Marconi	Burial Grounds & Graves	Grade IIIa
132948	MRN057	Marconi	Structures	Grade IIIc



APPENDIX 2

Reference List from SAHRIS

				Heritage Impact Assessments
Nid	Report Type	Author/s	Date	Title
321231	Heritage Impact Assessment	Jayson Orton	05/05/2015	Heritage impact assessment for eleven Solar PV Facilities and Supporting Electrical Infrastructure near Dealesville in the Free State Province Proposed by Mainstream Renewable Power Developments (Pty) Ltd.
334142	PIA Desktop	Lloyd Rossouw	03/02/2015	Palaeontological Desktop Assessment for 12 new Solar Photovoltaic facilities near Dealesville, Free State Province
360358	HIA Phase 1	Jayson Orton	01/02/2016	HERITAGE IMPACT ASSESSMENT: Scoping and Environmental Impact Assessment for the proposed development of the Marconi PV 100 MW Photovoltaic Facility near Dealesville, Free State
360609	HIA Phase 1	Jayson Orton	01/02/2016	HERITAGE IMPACT ASSESSMENT: Scoping and Environmental Impact Assessment for the proposed development of the Maxwell PV 100 MW Photovoltaic Facility near Dealesville, Free State
360610	HIA Phase 1	Jayson Orton	01/02/2016	HERITAGE IMPACT ASSESSMENT: Scoping and Environmental Impact Assessment for the proposed development of the Faraday PV 100 MW Photovoltaic Facility near Dealesville, Free State
360611	HIA Phase 1	Jayson Orton	01/02/2016	HERITAGE IMPACT ASSESSMENT: Scoping and Environmental Impact Assessment for the proposed development of the Watt PV 100 MW Photovoltaic Facility near Dealesville, Free State
360612	Heritage Impact Assessment	Lloyd Rossouw	31/01/2016	Palaeontological Desktop Assessment of 5 new Solar Photovoltaic facilities to be established over nine farms near Dealesville, Free State Province.
360615	HIA Phase 1	Jayson Orton	01/02/2016	HERITAGE IMPACT ASSESSMENT: Scoping and Environmental Impact Assessment for the proposed development of the Edison PV 100 MW Photovoltaic Facility near Dealesville, Free State
374522	HIA Phase 1	David Morris	07/07/2016	FS 30/5/1/1/2/10298 PR Doorndam - HIA
374526	HIA Phase 1		04/07/2016	FS 30/5/1/1/2/10307 PR Eerste Aanleg - HIA



4052	HIA Phase 1	Albert van Jaarsveld	01/03/2006	Hydra-Perseus and Beta-Perseus 765 kV Transmission Power Lines Environmental Impact Assessment. Impact on Cultural Heritage Resources
5097	AIA Phase 1	Johnny Van Schalkwyk	07/03/2003	Mercury-Perseus 400 kV Transmission Line, Cultural Heritage Resources
114445	HIA	Nkosinathi Tomose	07/07/2013	A Phase 1 Heritage impact assessment study for the proposed photovoltaic (PV) solar energy facilities (in Sannaspos), near Bloemfontein, Free State Province: DEA Ref No: 14/12/16/3/3/2/360 (Phase 1); DEA Ref No: 14/12/16/3/3/1/615 (Phase 2)



APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

Archaeological Impact Assessment			
Department of Agriculture and Rural Development (KwaZulu-Natal)			
Department of Environmental Affairs (National)			
Department of Environmental Affairs and Development Planning (Western Cape)			
Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)			
Department of Economic Development, Environment, Conservation and Tourism (North West)			
Department of Economic Development and Tourism (Mpumalanga)			
Department of economic Development, Tourism and Environmental Affairs (Free State)			
Department of Environment and Nature Conservation (Northern Cape)			
Department of Mineral Resources (National)			
Gauteng Department of Agriculture and Rural Development (Gauteng)			
Heritage Impact Assessment			
Department of Economic Development, Environment and Tourism (Limpopo)			
Mineral and Petroleum Resources Development Act, no 28 of 2002			
National Environmental Management Act, no 107 of 1998			
National Heritage Resources Act, no 25 of 1999			
Palaeontological Impact Assessment			
South African Heritage Resources Agency			
South African Heritage Resources Information System			
Visual Impact Assessment			

Full guide to Palaeosensitivity Map legend

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



APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEONTOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON



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

Low coverage will be used for:

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

Medium coverage will be used for

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

High coverage will be used for

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

RECOMMENDATION GUIDE

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

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

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed
- (2) The heritage resources and the area proposed for development are only partially recorded The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

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



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

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