


APPENDIX 6
BASELINE HERITAGE
SPECIALIST INPUT



HERITAGE IMPACT ASSESSMENT SCOPING REPORT

Prepared for

De Aar Solar One Photovoltaic Power Plant, Northern Cape

Document number	Author
PROJ 399-HIAR-1201	Elize Becker
Document version	Reviewed
Final	<i>Vernon Siemelink BSSci Honn</i> <i>Emile van Druten BSc Honn MSc (3)</i>
Client Contact Number	Date (audit)
Jeremy Blood Pr.Sci.Nat., CEAPSA Senior Environmental Scientist CCA ENVIRONMENTAL (Pty) Ltd • Consulting Services Unit 35 Roeland Square 30 Drury Lane Cape Town 8001 • PO Box 10145 Caledon Square 7905 Tel + 27 (21) 461 1118/9 • Fax + 27 (21) 461 1120 • jeremy@ccaenvironmental.co.za • website: www.ccaenvironmental.co.za	2012/01/18
Physical Address of Surveyed Premises	Date (received) by client
Potion 3 of Farm Hartebeestplaat 135 De Aar Northern Cape	2011/12/05 Signed in capacity as  _____

Contents

1.	PROJECT BACKGROUND (INFORMATION RECEIVED FROM THE CLIENT)	2
2.	HISTORICAL BACKGROUND	2
3.	PURPOSE AND OBJECTIVES	3
3.1	PROJECT OBJECTIVES	3
3.2	EXPECTED PROJECT ACHIEVEMENTS	3
4.	DEFINITIONS, ACRONYMS AND ABBREVIATIONS	3
5.	SURVEY METHODOLOGY AND HERITAGE LEGISLATION	4
6.	FINDINGS	5
6.1	POSITION OF PROPOSED DEVELOPMENT AREA	9
6.2	SIGNIFICANCE RATING AT THE DEVELOPMENT FOOTPRINT SITE	9
7.	RECOMMENDATIONS	10
8.	CONCLUSION	11
9.	REFERENCES	11
10.	AUTHORITIES CONSULTED	11

1. PROJECT BACKGROUND

The proposed De Aar Photovoltaic Power Project would entail the development of a photovoltaic power plant and associated infrastructure on Portion 3 Hartebeestplaats near De Aar (see Figure 1 p. 10). The proposed project would consist of the following components:

- a) 25 to 30 MW photovoltaic power plant with a footprint of approximately 72 ha associated with a singlestorey, internal access roads, parking area, security fencing with the appropriate gates and security lighting;
- b) Access Roads (internal access roads would be 7m wide);
- c) 132 kV overhead power line connecting the proposed power plant to the existing Hydra substation, approximately 1.5 km east of the site. Monopole steel towers with a height of approximately 17.5 m to 21 m would be used for the proposed power line;
- d) Electrical Substation ($\pm 500\text{m}^2$);
- e) Internal access roads (7 m wide);
- f) Storage and Maintenance Buildings ($\pm 650\text{m}^2$) and parking (500m^2);
- g) Security Perimeter Fencing around entire property;
- h) Security Lighting;
- i) Construction Camp ($\pm 1\text{ha}$); and
- j) Lay Down Area ($\pm 5000\text{m}^2$).

The construction phase will be associated with a lay down area, construction camp and borrow pits. The activities mentioned above assisted in the determination of the intensity that the proposed development may have the cultural landscape of the area.

2. HISTORICAL BACKGROUND

The history of De Aar dates back to the San and Khoikhoi history that is a significant trademark of the Upper – Karoo cultural landscape. The area is known for the occurrence of rock art sites at Damfontein and Brandfontein. In terms of historical records the San people moved away during the influx of the Europeans and the Khoi communities were used as slaves by the colonials. The colonists were made up of hunters and adventures looking for fortune. The Trekboers moved northwards to find water and food to feed their livestock.

The first farms were demarcated during 1837 and allocated to farmers living at the surrounding De Aar areas. The farm De Aar has originally been occupied by Jan Gabriel Vermeulen. De Aar received his name because of the rich water resources that are part of the geographic landscape.

After Jan Vermeulen's death, the farm was divided between his sons. "Rooi Stoffel" inherited the portion of the farm where the homestead used to be. Jan Weideman, a family member from Jan Vermeulen's wife inherited a portion named Waterdal.

In 1881 the railway line reached De Aar. Currently De Aar has 110km of railway lines and that includes 29 rail-tracks. De Aar is centrally located between the main railway line that links Johannesburg, Port Elizabeth, Cape Town and Namibia.

The Anglo-Boer War played a significant role in shaping the cultural landscape in the De Aar areas. De Aar was a central place to keep horses and ammunition. De Aar was also used for medical reasons and a hospital was developed to care for injured soldiers from Magersfontein. The De Aar area is surrounded by historical fortifications and blockhouses. British generals named Kitchener and French visited the De Aar area on a frequent basis.

De Aar is known for its Jewish residents namely the Friedlanders who used to be some of the main traders in the town. The municipal graveyard displays the existence of a large Jewish community during the early 1900's.

The historical background includes the development of Eskom Power Substations namely the Hydra Substation. At the end of 1975, the Eskom powerlines were under tremendous pressure and a fault at the De Aar Hydra Substation resulted in an ultimate blackout at the Cape Peninsula.

The rich historical record described above resulted in the development of a unique cultural landscape that is associated with a significant visual landscape.

3. PURPOSE AND OBJECTIVES

3.1 PROJECT OBJECTIVES

The objective of this Heritage Impact Assessment Scoping report is to provide a description of the affected environment in terms of heritage resources, to determine if any archaeological features are positioned on site that could be impacted by the proposed project layout and suggest recommendations to mitigate any potential impacts. Archaeological Features refer to graves, stone walling, archaeological objects (pottery), rock art, structures older than sixty years and archaeological cultural landscape areas. The objective of the study is to provide the Heritage Resources authority with a detailed report in terms of the type of development, if heritage resources are positioned within the impacted area and what the professional archaeologist's recommendations are.

3.2 EXPECTED PROJECT ACHIEVEMENTS

The heritage scoping study expectation is to achieve a clear understanding of the type of development, the exact location of the development and to determine the direct potential impacts it would have on the heritage resources environment.

4. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Archaeological sites are places where people lived and left evidence of their presence in the form of artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.

Aim of Conservation: The aim of conservation is to preserve, retain or recover the cultural interest of a place, and must include provision for its maintenance and its future.

Context: Historically valuable places do not consist of buildings alone. Conservation of such places requires the maintenance of appropriate visual settings and contexts. New construction, demolition or modification adversely

affecting the setting, and environmental intrusions which adversely affect enjoyment or appreciation of the place, should be excluded.

Cultural Significance is the aesthetic, historical, scientific and social value for past, present and future generations.

Determination of Cultural Significance: Cultural significance should be determined by analysis of the evidence gathered and as far as possible in consultation with a range of parties, including the public at large, local communities, cultural bodies and accredited experts on conservation and related issues.

Graves, burial sites, war memorials and monuments are tangible and symbolic reminders of our turbulent history. Graves are architectural examples of space where we transcend the historical past.

Historic means significant in history.

Historical means belonging to the past.

SAHRA: South African Heritage Resources Agency.

Minimal Intervention: Conservation is based on respect for the existing fabric and should involve the least possible intervention. It should not distort the evidence revealed in the fabric.

Place means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

Social Value embraces the qualities, for which a place has become a focus of spiritual, political, national, or other cultural sentiments to a majority or minority group.

5. SURVEY METHODOLOGY AND HERITAGE LEGISLATION

A site survey was undertaken on foot by Ms Elize Becker (Heritage Resources Practitioner) on the 25th to 26th of November 2011. The survey provided insight into the type of environment, position of the site, the surrounding activities and the possible living heritage resource problems that may occur if the proposed development is to proceed. The following steps were taken to obtain a better understanding of the cultural heritage of the area and the receiving environment.

- a) A project orientation process was undertaken at a desktop level to obtain a better understanding of the nature of the activity and the extent of the development proposal.
- b) A review of the technical proposal was undertaken. CCA Environmental provided information with regard to the extent of the site and information regarding the position of the development alternatives in terms of the potential impact it may have in the study area.
- c) A desktop investigation into the history of the area was undertaken including a literature review, internet search and liaison with the South African Heritage Resources Agency (SAHRA).

d) The compilation of the report and the determination of a way forward.

6. FINDINGS



Plate 1: The surface area on site is mostly disturbed with the occurrence of existing Eskom Powerlines.



Plate2: An existing road (N10 National Road) is positioned next to the proposed development site.



Plate 3: The hilltop areas, which are located outside the proposed power plant footprint, have been investigated on foot and few heritage objects of significance were identified.



Plate 4: The study area includes various access roads used by the landowner. No archaeological site of significance was identified during the baseline survey.



Plate 5: Scattered stone tools identified at the hilltop area.



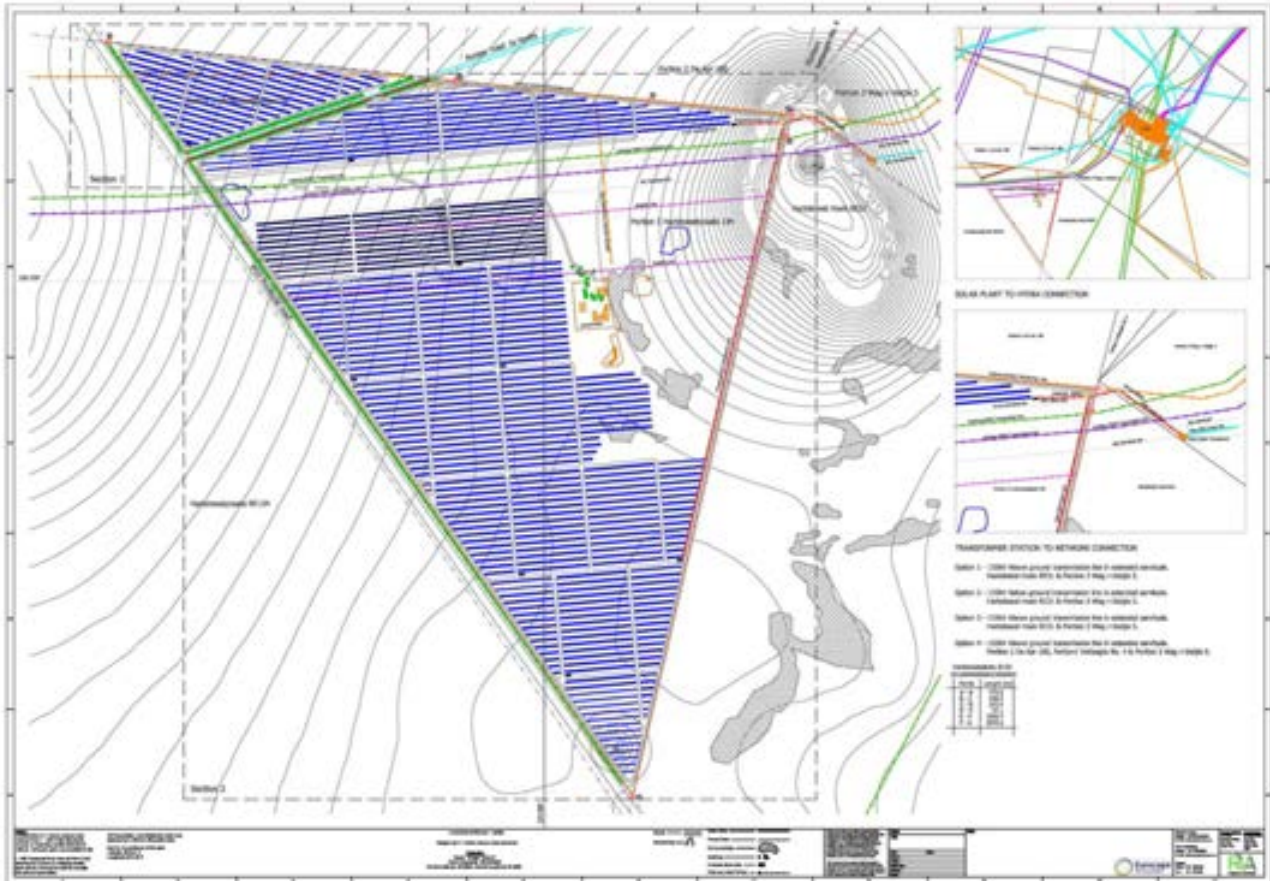
Plate 6: Existing railway line close to De Aar. It is within distance from the development site.



Plate 7: Surrounding De Aar cultural landscape

6.1 POSITION OF PROPOSED DEVELOPMENT AREA

Figure 1: Map provided by CCA Environmental indicating the layout of the proposed photovoltaic power plant and power line alternatives.



6.2 SIGNIFICANCE RATING AT THE DEVELOPMENT FOOTPRINT SITE

6.2.1 THE CRITERIA IN ASSESSING THE SIGNIFICANCE OF ARCHAEOLOGICAL SITES OF IMPORTANCE INCLUDE THE DETERMINATION OF THE FOLLOWING QUALITIES:

- The cultural landscape and nature of the site.
- The occurrence of archaeological deposits or in situ archaeological objects.
- The historical landscape and geographic environment.
- The position of the archaeological site in association with other sites of significance.
- The condition of the archaeological site, the immediate threat and conservation value.
- The overall characteristics of the site.

The criteria assessment below was extracted from the EIA Regulation 2010 that were published in terms of the National Environmental Management Act (Act No. 107 of 1998). The table below was used to provide a quantitative description of the overall heritage resources significance rating of the **proposed development site**.

Extent	Duration	Intensity	Probability	Weighting Factor	Significance Rating	Mitigation Efficiency	Significance After Mitigation
1 Footprint	1 Short Term	1 Low	1 Probable	1 Low	0-40 Low	0.4 High-Medium	0-40 Low
2 Site	2 Short Term-Medium	2 Low-Medium	2 Possible	2 Low to Medium	40-59 Low-Medium	0.6 Medium	40-59 Low-Medium
3 Regional	3 Medium	3 Medium	3 Likely	3 Medium	60-79 Medium	0.8 Low-Medium	60-79 Medium
4 National	4 Long Term	4 Medium - High	4 Highly Likely to Definite	4 Medium to High	80-100 Medium-High	1.0 Low	80-100 Medium to High

Overall significance rating at the development footprint area: low

The study area is already disturbed and low concentrations of significant heritage objects have been identified.

7. RECOMMENDATIONS

The existing land use of the proposed site includes a lodge (B&B), a brickworks and grazing for small game and sheep. Taking the existing activities into account on the property, the site is highly disturbed. A few scattered stone tools were identified at the hilltop area, which falls outside the proposed development footprint. The concentration is low and is considered to be of low heritage significance. It must be emphasized that although the surface area is mostly disturbed, it may come about that heritage objects are exposed during earthmoving operations. It is therefore required that in the event that any object of cultural value is identified, that the development is ceased until further notice. In this case scenario the South African Heritage Agency must be informed and they will provide further guidance in terms of the management of heritage resources aspect and any further restrictions.

8. CONCLUSION

In conclusion the site is of low significance in terms of existing heritage resources at the proposed development footprint. It is therefore proposed that the development may proceed from a heritage perspective. The developers must adhere to conditions stipulated above. The impact on the heritage resources will be assessed in the next phase of the EIA.

9. REFERENCES

<http://heritage.eskom.co.za/heritage/swartkops/swartkops.htm>

<http://www.deaar.co.za/>

<http://www.northern-cape.com/deaar.html>

10. AUTHORITIES CONSULTED

- South African Heritage Resources Agency Cape Town - 021 462 4502