

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED
WATERBERG PHOTOVOLTAIC PLANT ON A SITE NEAR, VAALWATER,
LIMPOPO PROVINCE**

DEA Reference Number: 12/12/20/1913

**COMMENTS AND RESPONSE REPORT AS PART OF THE DRAFT
ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

OCTOBER 2010



TABLE OF CONTENTS

1. OBJECTIVES OF THE COMMENTS AND RESPONSE REPORT.....	3
2. HOW ISSUES HAVE BEEN RAISED	3
3. IDENTIFICATION OF STAKEHOLDERS.....	3
3.1 CONTACTING AUTHORITIES	3
3.2 NEWSPAPER ADVERTISEMENT	4
3.3 SITE NOTICE.....	4
3.4 LANDOWNER IDENTIFICATION PROCESS	4
3.5 STAKEHOLDER CONSULTATION: SCOPING AND EIA PHASE.....	5
4. COMMENTS AND RESPONSES REGISTER	5
4.1 GENERAL.....	6
4.2 WATER RELATED IMPACTS	15
4.3 TOURISM RELATED IMPACTS.....	16
4.4 PROPERTY RELATED IMPACTS	17
4.5 VISUAL IMPACTS.....	19
4.6 NOISE IMPACTS.....	27
4.7 SAFETY RELATED IMPACTS	28
4.8 SOCIAL IMPACTS.....	29
4.9 TRAFFIC IMPACTS.....	35
4.10 WASTE IMPACTS.....	38
4.11 ECOLOGY RELATED IMPACTS.....	40
4.12 REZONING RELATED IMPACTS	43
4.13 FIRE RELATED IMPACTS	45
4.14 LOCATION / SITE RELATED IMPACTS	46
4.15 TECHNICAL RELATED ISSUES	51
4.16 INFRASTRUCTURE RELATED IMPACTS.....	55
5. WAY FORWARD	57
6. CONCLUSIONS.....	57

1. OBJECTIVES OF THE COMMENTS AND RESPONSE REPORT

The Comments and Responses Report includes the comments received during the Public Participation Process undertaken as part of the Scoping and Environmental Impact Assessment Phases for the proposed project. This includes responses to the advertisements, site notices, Background Information Documents (BID), meetings, written comments received and individual discussions with key stakeholders.

The Comments and Responses Report has the following objectives:

- To provide a formal and integrated record of all the issues raised by Interested and Affected Parties (I&APs) to date and the responses provided by the EIA Study Team and project proponent during the Scoping and Environmental Impact Assessment Phases of the project.
- To provide a mechanism that allows all parties participating in the process (including the environmental authorities) to verify whether the issues raised have been considered and, where appropriate, adequately addressed by the Environmental Impact Assessment (EIA) Study Team.

The Comments and Responses Report has been periodically updated during the EIA process to ensure that the document remains updated as new issues were raised throughout the process.

This document forms part of the draft Environmental Impact Assessment Report released for public comment. This project documentation will be available during the review period from 29 October 2010 – 29 November 2010.

2. HOW ISSUES HAVE BEEN RAISED

Issues have been raised and recorded through a variety of mechanisms. These include:

- Comments sheets received by fax, and/or e-mail;
- Comments sent to the public participation office via e-mails;
- Comments received during meetings held; and
- Comments received telephonically.

3. IDENTIFICATION OF STAKEHOLDERS

The identification of I&APs was undertaken through the following mechanisms:

3.1 Contacting authorities

Relevant government departments, municipalities and the affected ward councillors were contacted to inform them of the proposed project and to obtain their issues and comments in this regard.

3.2 Newspaper advertisement

The formal announcement of the proposed project was done by placing an advert in the Mogol Pos (local newspaper) on 13 May 2010 to invite all Interested and Affected (I&APs) to register. The objective of this newspaper advertisement was to:

- Inform I&APs of the proposed project;
- Inform I&APs of the EIA procedure and the way in which I&APs could lodge any objections to the proposed development and provide comments; and
- Invite I&APs to become involved in the proposed project by registering as I&APs.

Advertisements to advertise the availability of the DSR were placed in the Mogol Pos on 4 June 2010 and 11 June 2010.

3.3 Site Notice

On-site notice boards were placed at the following places on 11 May 2010:

- One notice was placed on site;
- One notice was placed at the entrance to the site (Kudu Lodge);
- One notice was placed at the intersection of the Melkrivier / Vier-en-Twintig Riviere Roads;
- One notice was placed at the Vaalwater Chemist;
- One notice was placed at the Vaalwater Spar; and
- One notice was placed at the Vaalwater Post Office.

These posters included information regarding the intended project, the public participation process and contact details of the public participation consultants.

3.4 Landowner Identification Process

In terms of Regulation 56(2) (b) of Government Notice R385, the public participation process has contacted the stakeholders that could potentially be affected by the proposed development. This includes the directly affected landowners, the neighbours within 100 m of the boundary of the site, municipalities and government departments. Personalised letters, faxes and e-mails were sent to these identified stakeholders to inform them of the project and invite participation. BIDs accompanied this correspondence.

3.5 Stakeholder Consultation: Scoping and EIA Phase

Landowners that have been identified and consulted with are indicated in the adjacent landowners map. The landowners received a personalised letter of invitation to participate in the study (accompanied by a BID).

The public participation process has been structured in a manner that allowed for consultation with I&APs at various levels and with different focus groups, which included:

- Key stakeholder group: Local Government (meeting held on 28 June 2010);
- Key stakeholder group: Landowners (meetings held on 21 and 28 June 2010);
- Key stakeholder group: Local Government (meetings held on 2 August 2010 and 21 September 2010); and
- Individual discussion with property owners throughout process.

A full list of stakeholders that have registered as I&APs is included in the public participation appendix – appendix A).

4. COMMENTS AND RESPONSES REGISTER

The Comments and Responses Report includes the comments received during the Public Participation Process undertaken to date for the proposed project. This includes responses to the advertisements, BIDs, individual discussions with key stakeholders, and any other comments received during the Scoping and Environmental Impact Assessment Phases.

4.1 General

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.1.1	I would like to form part of the EIA process for it is a positive contribution to electricity provision within South Africa. Requested that additional solar panels be built.	Reply Form Faxed: 10 May 2010	Mr. Hardus Steenekamp (Farmer in the Steenbokpan/Ellisras area)	Comment noted.
4.1.2	The cumulative impact of the proposed project on the Waterberg environment should be investigated.	Reply Form Faxed: Received 19 May 2010	Ms. Marie Helm (Farmers Union – Vaalwater)	The Scoping Report aimed to identify potential impacts that the proposed project could have on the environment. Potentially significant impacts will be further investigated during the detailed EIA Phase.
4.1.3	No comment. She requested that she be kept updated of the proposed development.	Reply Form Faxed: Received 19 May 2010	Ms. Astrid Basson (Democratic Alliance – Ellisras area)	Comment noted.
4.1.4	I know the principals in this project and have a high regard for their professional and ethical concern for environmental issues.	Reply Form Faxed: Received 26 May 2010	Mr. Richard Wadley (nearby resident)	Comment noted.
4.1.5	Should the project proceed, he indicated his willingness to be involved in the development.	Reply Form Faxed: Received 21 May 2010	Mr. Theunis Eloff (Adjacent property owner)	Comment noted.
4.1.6	He strongly opposes the development.	Reply Form Mailed: Received 2 June 2010	Mr. J.W.M. van Rooyen (Farm Servaas 104 KR)	Comment noted.
4.1.7	Another area for the proposed	Reply Form Mailed:	Mr. J.W.M. van Rooyen (Farm	The e-mail outlining the concerns

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	development should be found. The details of their concerns would be sent to the consultants via e-mail.	Received 2 June 2010	Servaas 104 KR)	was not received prior to the release of the DSR. The concerns will thus be noted in the final Scoping Report.
4.1.8	I own 2 farms next to the proposed development namely Sterkstroom 103 KR and a portion of Schoongezigt 107 KR. I vehemently oppose the proposed development as it would impact the value of land around the development, the visual impact would also affect tourism in the area and this property also borders and crosses the Waterberg Biosphere and I believe that it would also have an impact on the wildlife in the area.	E-mail correspondence received 7 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	A detailed visual impact assessment will be undertaken as part of the EIA phase of the project.
4.1.9	I do not understand why they want it in Vaalwater, it has the highest rainfall and is overcast most of the time even our solar does not work most of the time! This is also situated on the Waterberg Meander tourist route and I see absolutely no benefit for the surrounding farms at all. According to the study it will be a total eye sore and will most certainly devalue properties in	E-mail correspondence received 7 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Comment noted

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	the vicinity. I want to put on record that I am totally against the development as the neighboring farm and should this go ahead I will institute a legal case against the developers			
4.1.10	Earth is the only planet that supports life. There is huge variety of living organisms on our planet. The project should carry on.	Reply Form Faxed: Received 07 July 2010	Mr. Frans Mashilo Sebola (Vetus Schola)	Comment noted.
4.1.11	Vaalwater Farmers Union would like to obtain more information on the proposed project, positive or negative in order to inform other members.	Reply Form Faxed: Received 01 July 2010	Mr. Johan van Dyk: DLU Vaalwater (Farmers Union)	Comment noted. BIDs and Reply Forms were e-mailed to the farmers union.
4.1.12	He is the property owner of Sterkstroom 103 and Schoongezicht 107. The overall size of both the properties is approximately 1 800 ha. He operates a game farm on the properties and breeds rare species such as buffalo, sable antelope and rhino. Specific areas bordering the proposed development are used as breeding areas for the sable antelope and buffalo, but the rhino are free roaming. Three new lodges are proposed of which some would be located on the	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	A detailed visual impact assessment will be undertaken as part of the EIA phase of the project. The details of these three proposed new lodges and their location will be provided to the specialist requesting that they take this into account in the assessment. Furthermore, the process is currently in the beginning phases. The EIA process has just commenced, the aim of the

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	rocky outcrops in close proximity to the proposed development site. The locations of the lodges were provided on the study map, for the visual impact of the proposed new development on these new lodges are of a great concern.			Scoping Phase is to obtain issues from the public. These issues are then forwarded to the project team and the specialists. During the EIA Phase these issues will be addressed and the significance of potential impacts will be evaluated and mitigation proposed as appropriate. The aim of the Scoping Report is to identify and obtain issues.
4.1.13	Why can the developers not provide free electricity to the surrounding landowners and purchase fire trucks for the area?	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Thupela Energy will investigate this option as an alternative. It was also suggested that Mr Jurgens arrange a meeting with the other two partners of Thupela Energy (Phillip Calcott and Allan van Coller) in order to discuss specific issues that could not be addressed in this meeting, especially the issues raised with regards to the grid connection and the site selection.
4.1.14	Requested the full details of Thupela Energy, and the details of all the shareholders.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Batho Earth will obtain this information and provide this to Mr. Jurgens.

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.1.15	Statements made by Mr. Calcott during the focus group meeting held on 28 June 2010 seem to be incorrect based on information noted in the draft Scoping Report prepared by Savannah Environmental. Mr. Calcott thus provided the attendants with misleading information.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	Comment noted.
4.1.16	The lifespan of the facility is not 25 years, as indicated by Mr. Calcott, as the draft Scoping Report indicated that it would be between 30 to 50 years.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	Comment noted.
4.1.17	Who is the client?	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	The client is Thupela Energy which comprise three partners of which two (Phillip Calcott and Alan van Coller) are based in the Vaalwater area near the site and the third partner is based in Johannesburg.
4.1.18	The project must also be registered with the Limpopo Department of Environmental Affairs.	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Due to the project being energy related it will receive its authorisation from the National Department of Environmental Affairs, however the Department of Environmental Affairs in the Limpopo Province has also been notified of the proposed project

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				and will also review and provide comments on the EIA process.
4.1.19	The Waterberg Biosphere should also be contacted.	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Agreed and stated that a focus group meeting with this grouping is planned for the EIA Phase of the project. In addition the Waterberg Biosphere has also been notified of the proposed project and BIDs were provided. No specific comments have been received to date. A meeting will be arranged to discuss specific issues or requirements.
4.1.20	It would also be beneficial if a meeting could be arranged with the local councillors in order to discuss and present this EIA project and to provide background on the report. The correct individual to contact at the Modimolle Local Municipality is Mr Hunter Phogole.	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted. Stated that Mr Phogole is already on the project database and has also been contacted.
4.1.21	All Scoping and EIA reports should be delivered to the Waterberg District Municipality office. The document could also be delivered to the Municipal Manager's Office.	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.1.22	How long will this EIA process take?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	<p>The timeframes associated with undertaking a Scoping and EIA application is approximately 9-12 months but all depending on the issues obtained during the project process and if authorities adhere to their timeframes.</p> <p>It should be noted that the proposed project cannot proceed without obtaining a positive environmental authorisation from the relevant environmental authorities. No construction is allowed before the environmental authorisation has been obtained.</p>
4.1.23	Is it possible to obtain a copy of the attendance register signed at the meeting today?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	The attendance register will be e-mailed together with the minutes of the meeting. The attendants agreed that their contact details could be distributed to the other attendants.
4.1.24	As a neighbouring landowner he stated that he submitted his objection against the proposed PV plant project. The visual impact of the PV plant on his	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	Comment noted. A detailed visual impact assessment will be undertaken in the EIA phase of the process in order to assess the

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	lodge cannot be minimised. The marketing strategy of his lodge is based on its location within the Biosphere. The proposed project would eliminate this due to the severe negative visual impact that it would have.			significance of the visual impact on surrounding properties.
4.1.25	The Waterberg Nature Conservancy is, in principle, in favour of it. We are very glad to see an initiative of this kind anywhere in the country, more so that it is being undertaken in the Waterberg. We are hopeful that it will set an example that can be emulated elsewhere in the country. We know the principals in the project and have a high regard for their professional and ethical concern for environmental issues.	E-mail correspondence received on 21 July 2010	Mr. John Miller: Waterberg Nature Conservancy: Chairman	Comment noted.
4.1.26	In looking at the bigger picture impact on the Waterberg, the Conservancy is often concerned about water supply, densities, light, air and noise pollution, roads, sewage and refuse systems. Those issues don't seem to be of significant importance to the Thupela project.	E-mail correspondence received on 21 July 2010	Mr. John Miller: Waterberg Nature Conservancy: Chairman	The possible impacts referred to would be investigated and assessed during the EIA Phase of the project.

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.1.27	The Strategic Development Framework (SDF) is still being compiled and there is thus no public document available yet.	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.1.28	The Agriculture Land Use Policy is still in draft form and would not be finalised within the next couple of months. A service provider still needs to be appointed to undertake the promulgation process	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.1.29	Vaalwater was seen as a municipal growth point.	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.1.30	The WDM was currently busy with the compilation of the Waterberg Biosphere Management Plan.	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.1.31	He indicated that it would be useful if a meeting could be held with all the relevant councillors and planning forums to discuss the proposed project with them	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	The public participation consultants would liaise with Mr. Siebe in this regard. A meeting with representatives of the planning forums was attended on 21 September 2010.
4.1.32	It was suggested that a presentation regarding the proposed project be	Minutes of Focus Group Meeting: 21	Mr. R.P. Molebalu: WDM: IDP	The public participation consultants would follow up in this regard.

NO.	THEME: GENERAL			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	provided to the political representatives and mayors	September 2010	Manager	

4.2 Water Related Impacts

NO.	THEME: WATER RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.2.1	The impact of the proposed project on water sources should be investigated.	Reply Form Faxed: Received 19 May 2010	Ms. Marie Helm (Farmers Union - Vaalwater)	Comment noted. The Scoping Report aimed to highlight possible impacts that the proposed project could have on the environment. Potentially significant impacts will be further investigated during the detailed EIA Phase.
4.2.2	Impact of water pollution due to the close proximity of the site to a river.	Reply Form Faxed: Received 21 May 2010	Mr. Theunis Eloff (Adjacent property owner)	Comment noted. Potential impacts on surface water will be addressed through the Environmental Management Plan (EMP) which will be compiled for construction and operation. This EMP will form part of the EIA report.
4.2.3	The effect on existing water levels.	E-mail Sent: Received: 03 July 2010	Mr Trevor Hyam (Adjacent property owner)	The volume of water required for the proposed development is minimal.

4.3 Tourism Related Impacts

THEME: TOURISM RELATED IMPACTS				
NO.	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.3.1	The impact of the proposed project on tourism and the hunting industry should be investigated.	Reply Form Faxed: Received 19 May 2010	Ms. Marie Helm (Farmers Union - Vaalwater)	The Scoping Report aimed to highlight possible impacts that the proposed project could have on the environment. Potentially significant impacts will be further investigated during the detailed EIA Phase. This issue will be addressed as part of the Social Impact Assessment.
4.3.2	The plant (20 hectares) will be visible from my farm and will have a negative impact on ecotourism and game activities on my farm.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	The potential visual impact and impact on tourism will be assessed within the EIA phase of the process.
4.3.3	Millions of rands have been spent on infrastructure on my and other adjacent farms to provided effective infrastructure for farming purposes and ecotourism. I will suffer enormous losses if this plant goes ahead and negatively impacts on tourism and hunters on my farm.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	The potential impact on tourism will be assessed within the EIA phase of the process.
4.3.4	The Biosphere Meander (tourism route) is also in close proximity to the proposed development site and tourists will make use of this road to travel through the meander.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The impact on tourism and visual impacts from this tourism route will be further investigated during the EIA phase of the project.

NO.	THEME: TOURISM RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.3.5	The BID refers to a Visitor Centre (Tourist Attraction) that will be developed as part of the project. How many additional busses / cars are anticipated? The roads will not be able to carry additional loads.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	The proposed project will be one of the first PV panel projects within the Limpopo province and within South Africa. The aim of the visitors centre is to show school children the possibilities of using alternative energy and that the type of technology and project could be seen as the way-forward for South Africa. Kudu Lodge or Windsong could be used to accommodate these kids. This will not be a nationwide tourist attraction. The main aim is to provide environmental awareness to local school children.

4.4 Property Related Impacts

NO.	THEME: PROPERTY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.4.1	The impact of the proposed project on properties should be further investigated.	Reply Form Faxed: Received 21 May 2010	Mr. Theunis Eloff (Adjacent property owner)	The Scoping Report aimed to highlight possible impacts that the proposed project could have on the environment. Potentially significant impacts will be further investigated during the detailed EIA Phase. The impact on surrounding properties will be

NO.	THEME: PROPERTY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				addressed as part of the Social Impact Assessment. A property valuation, however, would not be undertaken.
4.4.2	The proposed plant will also have a negative impact on land prices in the area as this area is exclusively used for game and cattle farming. Any industrial plant will jeopardise the value of adjacent property.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	An assessment of potential impacts on property values as a result of the proposed project will be undertaken within the EIA phase of the process.
4.4.3	How will the proposed development impact on the value of properties surrounding the site? As a property owner he has invested large sums of money into his farm. He therefore would like to know what impact the new photovoltaic facility will have on the value of his property and on the protected species on the property. If his property value is negatively affected he will take legal action against the proposed development.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	This impact will be investigated and a specialist would have to be appointed to determine the impact of the proposed development on the value of the surrounding properties.

4.5 Visual Impacts

NO. THEME: VISUAL IMPACTS				
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.5.1	What is the risk that reflection from the panels will be seen by neighbours during the day or during panel rotation?	Reply Form Faxed: Received 26 May 2010	Mr. Richard Wadley (nearby resident)	This will be assessed by the visual specialist during the EIA Phase.
4.5.2	What will be done to minimise the visual impact of power lines linking the plant to the grid or application?	Reply Form Faxed: Received 26 May 2010	Mr. Richard Wadley (nearby resident)	No new power lines will be constructed. The facility will be connected to the grid via a turn in and turn out design into the existing Mink power line which crosses the proposed development site.
4.5.3	The impact on the existing natural views which will be spoilt. The fact is that this project is a commercial project and nothing to do with the pros and cons of producing electricity. This could still be achieved by building the project in an area where the effect to the natural and beautiful views will not be spoilt.	E-mail Sent: Received: 03 July 2010	Mr Trevor Hyam (Adjacent property owner)	Comment noted
4.5.4	The photovoltaic panels will have a definitive visual impact on the surrounding property owners. As indicated in the Scoping Report, the panels will be 6 m high and will have a severe visual impact as it would be	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The visual assessment undertaken as part of the Scoping Report was a basic visibility analysis indicting the theoretical visibility of the proposed development. The absorption capacity of the

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	above the general tree line. It would thus have no benefit for the adjacent farmers and/or property owners.			<p>vegetation is not included in this analysis. The height of the panels (6 m) within the Scoping Report was explained as the worst-case scenario by the visual specialist. The layout of the plant and location on the site would also play an important role in mitigating the visual impact.</p> <p>The layout would most probably be rectangular and kept at the bottom of the slope to minimise the visual impact. It is anticipated that the panels could be between 3.8 m to 3.9 m in height. This will be confirmed by the final design. Vegetation cover will also be used as a visual barrier in order to minimise the visual impact.</p>
4.5.5	The visual impact of the proposed facility on his lodge and property and subsequent financial impact is a major concern.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	Potential visual impacts and impacts on property values of surrounding landowners will be assessed within the EIA phase of the process.
4.5.6	The Conservancy does recognize,	E-mail	Mr. John Miller: Waterberg	Potential visual impacts and

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	<p>however, that any negative environmental impact posed by the project will be important to address - not least because the site lies on one of the routes of the Waterberg Meander. We are concerned about the possible implications for neighbours and travelers of the visibility of the panel array, or reflection from it; and of any overhead power cables that might be necessary to link the generator to the grid or local applications. The developers are urged to ensure that these impacts are minimised or avoided</p>	<p>correspondence received on 21 July 2010</p>	<p>Nature Conservancy: Chairman</p>	<p>possible impacts on surrounding landowners will be assessed within the EIA phase of the process.</p>
4.5.7	<p>Having reviewed the visual assessment report we would like to suggest the following measures are taken to reduce the visual impact:</p> <ul style="list-style-type: none"> • The proposed 6m height of the units is an overkill and will increase the distance from which the development is seen as well as reducing the VAC, I assume. We suggest that this height is reduced to a suggested 3 - 4m. • The location of this development 	<p>E-mail correspondence received on 3 August 2010</p>	<p>Dr. Anthony Roberts: Waterberg Biosphere Reserve / Director Lapalala Wilderness School</p>	<p>The following recommendation has been made with respect to the height of the PV panels:</p> <ul style="list-style-type: none"> • The primary visual impact, namely the appearance of the PV plant (mainly the solar panel field) is not possible to mitigate. Although the functional design of the structures cannot be changed in order to reduce visual impacts,

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	<p>could be moved in a way to limit visibility from the secondary roads in the area by concealment behind elevated areas. This is of primary importance and it is hoped that the planners could look to utilising elevation to a maximum to achieve concealment at the sacrifice of indigenous vegetation but at the same time ensuring the protection of riparian vegetation and habitat alongside the Melk River within a 50m distance.</p> <ul style="list-style-type: none"> • If the development is to be 20ha the WBR suggests that the application be for such and no more. If expansion of the project is to happen then an application for this be applied for at a later stage. The reduction in size will enable concealment to be more achievable. • Security lighting is at a minimum and downward pointing with the bulk of security lights being on motion sensors to avoid constant 			<p>it is proposed that the standard height of the units be set at 3 - 4 m and that a 6 m height should only be used on exception where absolutely necessary. This will reduce the facility's visual intrusion and increase the vegetations' ability to mask the facility.</p> <ul style="list-style-type: none"> • The location of the facility is motivated due to the following: • Climatic conditions: The economic viability of a PV plant is directly dependent on the annual direct solar irradiation values. The level of irradiation available in the area is approximately 2 170 kWh/m² for a horizontally oriented square meter. • Topography: A relatively flat surface area is required for the placement of the PV panels. This flat surface area will also facilitate construction of the plant.

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	<p>illumination of the area.</p> <ul style="list-style-type: none"> A vegetation layer should be established through the development so as to reduce the albedo, and water runoff of the site. 			<ul style="list-style-type: none"> Extent of site: Space is a restraining factor for the development of solar facilities¹. The broader site under investigation is approximately 50 ha in extent, while the developmental footprint (i.e. the PV panels as well as the associated infrastructure) is approximately 20 ha (and not more than 30 ha) in extent. Therefore the identified broader site is considered sufficient for the establishment of the entire facility. Power transmission considerations: the Vaalwater Substation is nearing maximum capacity, and evacuating the power from the PV facility directly to this substation was therefore not considered further. However, Eskom's Mink power line traverses the

¹ For example a 1 MW PV plant utilising fixed panels requires approximately 1 - 3 ha.

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				<p>site. It has been determined through preliminary discussions with Eskom that this line has capacity to receive the power from the proposed facility. Furthermore, Thupela Energy has been advised through discussions with Eskom that the proposed site is preferred for the placement of the facility as it would serve to strengthen the existing Vaalwater - Sterkstroom Line (refer to Appendix D for the minutes of the relevant meeting held with Eskom). Therefore a switching station is proposed which will allow Thupela Energy to “turn in” to this existing power line in order to evacuate the power from the PV facility to the grid.</p> <ul style="list-style-type: none"> • Environmentally suitable: The broader site under investigation has been transformed through agricultural practices (i.e. the

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				<p>entire site has been disturbed using centre pivot irrigation systems). It is preferable, from an ecological perspective, to utilise a transformed site, as this will minimise impacts on biodiversity. From a technical perspective, it is preferable to utilise an area devoid of woody vegetation as shading would reduce the efficiency of the PV panels. Further to this, the proposed development site is located outside of the Waterberg Biosphere Reserve therefore presenting no direct risk to its ecological integrity.</p> <ul style="list-style-type: none"> • With respect to the size of the facility, the EIA application was made for a broader site of 50 ha which proposed developmental footprint will not exceed. The facility is proposed to cover an area of 20 ha but not more than 30 ha. • In terms of security lighting, no

NO.	THEME: VISUAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				<p>high mast lights will be installed on site as these would interfere with the operations of the plant due to shading. It is planned that infrared security cameras will be used, and that maintenance activities would likely be undertaken with the use of torches.</p> <ul style="list-style-type: none"> • Apart from the foundations, the existing on-site vegetation will not need to be totally cleared and to some extent will be able to regenerate which will serve to mitigate the potential for albedo and storm water run-off
4.5.8	<p>The impact of a development such as this is seen to be most pronounced from a visual point of view and is the WBR's strongest concern.</p> <p>In summary the WBR is supportive of this project but would like to insure that the visual impact of the development is kept to a minimum and all avenues are explored so as to ensure this.</p>	<p>E-mail correspondence received on 3 August 2010</p>	<p>Dr. Anthony Roberts: Waterberg Biosphere Reserve / Director Lapalala Wilderness School</p>	<p>Comment noted.</p>

4.6 Noise Impacts

THEME: NOISE IMPACTS				
NO.	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.6.1	Is there any noise factor?	Reply Form Faxed: Received 26 May 2010	Mr. Richard Wadley (nearby resident)	Noise is anticipated during the construction phase. In terms of noise impacts the Draft Environmental Management Plan (EMP), which will be developed together with the EIA report, will stipulate specific mitigation measures in order to minimise the impact of noise, such as working hours and vehicle maintenance requirements on a regular basis in order to minimise noise impacts.
4.6.2	Noise impact during the construction phase	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Johan Vorster: Sterkstroom	In terms of noise impacts the Draft Environmental Management Plan (EMP), which will be developed together with the EIA report, will stipulate specific mitigation measures in order to minimise the impact of noise, such as working hours and vehicle maintenance requirements on a regular basis in order to minimise noise impacts.

4.7 Safety Related Impacts

NO.	THEME: SAFETY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.7.1	Impact of crime during the construction period.	E-mail Sent: Received: 03 July 2010	Mr. Trevor Hyam (Adjacent property owner)	Comment noted.
4.7.2	Workers on the plant will have to live on the farm. This will lead to the development of informal settlements out of control. Crime will flourish. Illegal poaching and trespassing of adjacent land will follow.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	Workers will not reside on the farm, but will be transported to site on a daily basis. There will however be permanent security personnel on the site.
4.7.3	Crime will increase due to the proposed project as a result of the influx of additional people to the area.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	Currently the surrounding farms employ 350 people so there is already a movement of large volumes of people throughout the area. When local people are employed crime decreases. The proposed project will make use of local people with a strong presence of security. It is thus not anticipated that the proposed project will lead to an increase in crime. This issue will however be assessed as part of the social impact assessment.
4.7.4	How safe is the proposed PV plant compared to a power station?	Minutes of Focus Group Meeting: 21	Unknown	The proposed PV plant would result in no emissions. The influx of

NO.	THEME: SAFETY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
		September 2010		workers during the construction phase and storage of material during the operational phase could create some security risks. The entire area would be fenced with permanent security personnel on site. The operation of the PV plant itself would not create security or safety risks.

4.8 Social Impacts

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.8.1	Would there be any form of accommodation on site?	Reply Form Faxed: Received 21 May 2010	Mr. Theunis Eloff (Adjacent property owner)	At this stage it is anticipated to make use of a local labour force which would thus not necessitate any form of accommodation on site. The Social Impact Assessment will further investigate this issue during the EIA Phase of the project.
4.8.2	Different part of the world experience different climates. Climate refers to rainfall pattern, temperature and usual weather of an area. The Waterberg is an area suitable for this proposed	Reply Form Faxed: Received 07 July 2010	Mr. Frans Mashilo Sebola (Vetus Schola)	Comment noted

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	project and more jobs will be created and reduce unemployment rates. The Waterberg is an area consisting of low mountain ranges and escarpments with little economic activity.			
4.8.3	How many people will live on site?	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Staff will not be able to stay on site. Daily shifts of 40 to 45 people per single daily shift will be required. In terms of general support and maintenance, five (5) people are required and will make use of a small office hidden by vegetation. Seven (7) security personnel would be permanently required. Thupela Energy is planning to transport workers to and from the site on a daily basis.
4.8.4	What benefits will the proposed project have as it would not have any benefits for the adjacent landowners?	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The proposed project will create jobs in an area that is severely affected by poverty and will thus benefit the community at large. It will also feed power into the Eskom electricity grid.
4.8.5	Disagrees with the above statement. The site is 24 km from town. Workers would have to make use of the gravel	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Thupela Energy will be responsible for transport arrangements. Workers would receive

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	road to get to the site on a daily basis. The road is already in a poor state and during the rainy season it is difficult and dangerous to make use of this road. The site should therefore be closer to town where the local communities are situated.			transportation for free. They will be transported by bus.
4.8.6	Thupela Energy could make use of a site closer to town where transportation of workers would not be required. Thupela Energy can then use the cost saving to actually increase the remuneration packages of the workers. He is of the opinion that the only reason why Thupela Energy chose the proposed site is because the site is owned by a family member of one of the shareholders which makes it a cost effective solution.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The area needs upliftment. He indicated that another benefit of the project is that it could involve the local community within Vaalwater. Thus far Thupela has received positive feedback from the community on the project.
4.8.7	Reiterated that the photovoltaic facility will have no direct benefits to the surrounding landowners. He is also of the opinion that the power grid is not up to standard due to the number of power outages experienced in the area. All surrounding property owners have	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Comments noted. The proposed development will have no environmental impact, no impact on water sources, and will not create effluent. The panels will be cleaned with pressurised air.

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	generators. Various isolation dips are thus expected.			The only requirement is sunlight.
4.8.8	<p>The proposed project will have an impact on the environment as the inflow of 40-45 workers working permanently in a single daily shift will definitely have an impact on the environment with regards to noise and waste (sewage).</p> <p>Enquired as to why there are workers in the area that are transporting wood from trees being cut off. This took place approximately 2 months ago. The worker indicated that they are working for the Barbers.</p>	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	<p>Comment noted.</p> <p>Thupela Energy could investigate this in order to determine what activities are taking place. The EIA consultants are assessing the actual land to be used by the development and not the bigger property.</p>
4.8.9	Mr. Calcott indicated that between 10 to 15 people would be on site per shift. The draft Scoping Report indicated that 25 to 30 people would be on site per shift.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	
4.8.10	Mr. Calcott did not state that night shifts would be undertaken for maintenance. The draft Scoping Report however indicated that maintenance would be done at night. This would	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	exacerbate the noise factor.			
4.8.11	What benefits will the proposed project have, especially for the local community? Will the project only benefit surrounding landowners?	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Additional electricity will be fed into the Eskom grid due to the proposed project which will benefit the greater community. It was explained that the proposed project will benefit the local community by providing job opportunities. Once operational, the proposed project would require permanent employees to operate and maintain the facility. In terms of general support and maintenance, approximately five (5) people would be required and approximately seven (7) security personnel would be permanently required. Thupela Energy is planning to transport workers to and from the site on a daily basis.
4.8.12	He enquired about the number of employment opportunities that would be created during the operational phase of the project.	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Approximately 90 long term job opportunities would be created. Locals would probably be sourced from the unemployed at the farm Boschdraai where a village of approximately 350 individuals are

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				situated, as well as from Leseding at Vaalwater.
4.8.13	Approximately 80% of the settlements and proposed townships within the MLM do not have electricity	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	Comment noted.
4.8.14	The MLM has to contribute R36 million to Eskom for the upgrading of the substation near Modimolle	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	The proposed project could still help with regards to the demand within the Modimolle area. It is a technical issue that has to be verified, but in principle if the local grid is upgraded there might not be the need for the upgrading of the substation.
4.8.15	The need for electricity in Modimolle was high. There are no funds available in the local budget to fund the upgrade of the substation. The proposed project could thus alleviate some of the needs in the area by reducing the pressure on the supply in other places in the MLM area.	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	Comment noted.
4.8.16	In principal the WBR is supportive of projects that will result in sustainable utilisation of natural resources whilst at the same time creating jobs. However, owing to the WBR's objectives of	E-mail correspondence received on 3 August 2010	Dr. Anthony Roberts: Waterberg Biosphere Reserve / Director Lapalala Wilderness School	Mitigation measures have been proposed as per the Draft EMP.

NO.	THEME: SOCIAL IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	limiting developments to certain zones thereby reducing impact on the "sense of place", conservation and tourism in the predominantly untouched environment of the Waterberg it is hoped that certain mitigating measures will be put in place during planning phase of this development.			

4.9 Traffic Impacts

NO.	THEME: TRAFFIC IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.9.1	My farm (Remaining Extent of the Farm Schoongezicht) is situated adjacent to the farm Goedgevonden. The proposed plant will be less than 500 m from my entrance gate. Entrance to my farm will have to pass through the plant.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedts (Breedts Boerdery – adjacent property owners)	Comment noted. Impacts on surrounding properties will be assessed within the EIA phase of the process.
4.9.2	Damage to roads which are already bad and dangerous.	E-mail Sent: Received: 03 July 2010	Mr Trevor Hyam (Adjacent property owner)	Comment noted.
4.9.3	The main problem with the proposed development is its location as the site should be situated closer to town (Vaalwater). Transport for workers will be an impossible task. The road is also	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Comments noted. Thupela Energy could investigate the possibility of grading the road and investigate the conditions of

NO. THEME: TRAFFIC IMPACTS				
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	very dangerous. How will Thupela Energy deal with emergencies? How will fire trucks access the site? The site is very far from town. Together with the visual impacts and environmental sensitivities associated with the Biosphere, this project should be situated closer to town. He is not against the project but against the location of the project.			the road.
4.9.4	What traffic impacts will the proposed project have?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	Limited traffic impacts are anticipated. The construction phase will take approximately 6 months for completion and during the operational phase two vehicles will be used daily (arriving in the morning and leaving in the afternoon) for transporting workers. The proposed site will be protected with 24 hour security, working in an 8 hour shift. At this stage it is anticipated that there will be seven vehicles travelling to and from the site on a daily basis.
4.9.5	The facility will then create numerous additional vehicle trips through the area	Minutes of Adjacent Landowners	Mr. Willie van Rooyen: Sterkstroom Boerdery and	Maintenance of the private road that will be used will be undertaken

NO.	THEME: TRAFFIC IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	per week. Will the roads be able to accommodate this additional load? Currently the roads are very degraded and the municipality does not maintain them. The situation will thus not improve.	Meeting: 28 June 2010	Matlapaning Lodge	by Thupela Energy. The project will lead to better security within the area.
4.9.6	As adjacent landowner we appeal that the weight of this project is used with the municipalities in order to improve the current conditions of the gravel roads surrounding the site.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Ms. Nina Baber: Boschdraai	The consultants also met with the Waterberg District Municipality this morning in order to discuss the proposed project. The issue of the roads will be brought to their attention through the project documentation and that upgrading is required. Experience, however, has shown that one individual project does not guarantee that government would upgrade a road or whether there would be funding available to upgrade roads.
4.9.7	Due to the proposed project, what are the chances that the roads in the area could be improved?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Ms. Nina Baber: Boschdraai	This is very difficult to say. It all depends on the funding available from the responsible government departments and their planning processes. The EIA process can motivate that the roads in the area should be upgraded but the actual

NO.	THEME: TRAFFIC IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				upgrade cannot be guaranteed.
4.9.8	Impact on roads during the construction phase	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Johan Vorster: Sterkstroom	Long-term employment during the operational phase will make use of local people. However, during the construction phase the majority of workers will be employees from the construction companies employed. Some simple construction activities could be undertaken by local labourers such as the digging of trenches and so forth. Some short term local employment would thus be created during the construction phase. The plant will be pre-built and only put together on site. Most of the work required is the installation of cables.

4.10 Waste Impacts

NO.	THEME: WASTE IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.10.1	Impact on waste pollution.	E-mail Sent: Received: 03 July 2010	Mr Trevor Hyam (Adjacent property owner)	Impacts on this regard will be addressed through the EMP which will be compiled as part of the EIA Report.
4.10.2	The influx of school children and	Minutes of Adjacent	Mr. Willie van Rooyen:	Comment noted. The project

NO.	THEME: WASTE IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	tourists who would create additional waste and littering is a concern. Furthermore, what will happen if our cattle eat these papers?	Landowners Meeting: 28 June 2010	Sterkstroom Boerdery and Matlapaning Lodge	proponent will ensure that maintenance is undertaken as part of the proposed project. The facility should ensure that littering is avoided.
4.10.3	How will sewage be handled?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	A maximum of 25 people per shift will be located on site. It is proposed that French drains are used for sewage.
4.10.4	French drains will pollute the underground water sources.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	In terms of the EIA process both septic tanks or French drains will be investigated. The environmental impacts of both systems will be analysed and the best option will be recommended.
4.10.5	Both systems require maintenance and this will again lead to additional trucks transporting the waste from the site.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	Specialist studies will be done during the EIA Phase of the project. Currently the project is in the planning process and the final layout and technical detail of the project have not been finalised. This can only be finalised after all the specialist studies have been completed. The aim of the EIA process is thus to identify issues and recommend ways in which

NO.	THEME: WASTE IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				these impacts could be mitigated.

4.11 Ecology Related Impacts

NO.	THEME: ECOLOGY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.11.1	This area falls within the Waterberg Biosphere, an international recognised sensitive environment. Obviously the applicant will have to obtain the necessary consent from the Biosphere to proceed with the plant.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	The proposed development site falls outside of the Biosphere Reserve. During the EIA phase, consultation with the Biosphere Reserve and the relevant conservation authorities will be undertaken in order to ensure that no issues in this regard have been omitted.
4.11.2	The proposed study area is located within the Waterberg Biosphere Reserve. This is a very sensitive environment with various endangered wildlife species located within the reserve, such as endangered reptiles, rodents and other animals. This should also be included into the Scoping Report.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The proposed study area is situated within the transitional zone of the reserve and not within the buffer or core areas of the Biosphere. The north-western beacon of the farm boundary borders the Waterberg Biosphere Reserve's buffer zone. A small section of the farm (west of the secondary road) is located within the transitional zone of the Biosphere Reserve. The actual development site is not within the

NO.	THEME: ECOLOGY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				<p>Biosphere Reserve. Within the transitional zone limited agricultural and infrastructural developments are permitted. The proposed development site is already disturbed as a result of historical agricultural activities. The biodiversity of the site is expected to be limited. During the EIA phase, consultation with the Biosphere Reserve and the relevant conservation authorities will be undertaken in order to ensure that no issues in this regard have been omitted.</p> <p>After the meeting Savannah Environmental compiled a map indicating the proposed study area and its location within the Waterberg transitional zone and buffer zone</p>
4.11.3	It was indicated that sheep could be used for grazing purposes between the panels. Sheep are not well adapted to the bushveld environment and will not	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	Comment noted.

THEME: ECOLOGY RELATED IMPACTS				
NO.	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	thrive in that environment.			
4.11.4	It was important to note that there are various talks on the implementation of the Trans Continental Transfrontier Park. The aim is to broaden the Kruger National Park, up to Angola, and it will affect the farms surrounding Vaalwater.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	The comments with regards to the proposed Transfrontier park were noted.
4.11.5	What are the implications for farming in the area due to the heat generated as part of the project? Would small animals or insects be affected?	Minutes of Focus Group Meeting: 21 September 2010	Ms. L. Mayatula: The Practice Group	<p>The site would not be completely cleared and the panels would be on mounts. The site is in a transformed state with no natural vegetation. A pivot irrigation system has been used on site.</p> <p>According to the ecological study undertaken during the Scoping Phase, the proposed project would have no significance on any species that might occur there. The heat generated would actually be less than before the panels have been erected as the area would then receive 20% – 25% shade which would be similar to the shade of trees. Rodents and the existing vegetation can co-exist with the proposed plant. The shade will</p>

NO.	THEME: ECOLOGY RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				move during the day. Overall the temperatures on the ground will not be hotter but cooler.
4.11.6	What would the impact be on the Waterberg Biosphere Reserve (WBR) as the site is in close proximity to the WBR?	Minutes of Focus Group Meeting: 21 September 2010	Ms. L. Mayatula: The Practice Group	At this stage the possible visual impacts on the Biosphere e.g. tourists using local roads when visiting the Biosphere or Waterberg Meander, is acknowledged. From an ecological point of view it is not envisaged that any endangered fauna or flora species would be negatively affected.

4.12 Rezoning Related Impacts

NO.	THEME: REZONING RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.12.1	Before any operation can be conducted the farm will have to be rezoned for industrial purposes. This will open the door to any type of development on the farm without control. This is not favourable for any kind of adjacent farming and will negatively impact on the area.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	Comment noted.
4.12.2	What is the current zoning of the land?	Minutes of Focus Group Meeting: 28	Mr. P. Siebe: Waterberg District Municipality:	The proposed site is currently zoned as agricultural.

NO.	THEME: REZONING RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
		June 2010	Divisional Manager Development Planning	
4.12.3	<p>The zoning of the site is very important for the Waterberg District Municipality as they have developed an Agricultural Land Use Policy. This policy has already been approved but has not yet been promulgated. Once promulgated, all future EIA projects should adhere to this policy and its requirements.</p> <p>The municipality is aiming to promulgate the policy at the end of the year. However current EIA projects such as this PV solar panel project will not be influenced by this policy. Environmental consultants should just take note of this new Agriculture Land Use Policy and its requirements.</p>	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.12.4	He noted that agricultural land was not necessarily required to be rezoned depending on the specific future land use, but stated that this aspect would fall under the jurisdiction of the MLM	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	Comment noted.
4.12.5	He indicated that the land could be rezoned to industrial. There are	Minutes of Focus Group Meeting: 2	Mr. Hunter Phogole: Modimolle Local Municipality:	Comment noted.

NO.	THEME: REZONING RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	different categories of industrial type zoning (e.g. light and heavy industrial). The correct land use category to be rezoned to would have to be finalised in consultation with the MLM and independent town planners.	August 2010	Town Planning	
4.12.6	How far is the process with regards to the proclamation of the land?	Minutes of Focus Group Meeting: 21 September 2010	Mr. P. Siebe: Waterberg District Divisional Development Planning Manager	Thupela Energy (Pty) Ltd. appointed Nicky Ludick as town planner. Under her guidance they would undertake the necessary town planning process whereby they would apply for special zoning.

4.13 Fire Related Impacts

NO.	THEME: FIRE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.13.1	It is common cause that fires start easily and more regularly in and around informal settlement. This area is extremely sensitive to fires. Any fire on my farm will lead to a huge financial loss.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	Comment noted. Fire management has been identified as a potential issue within the scoping study. This will be addressed within the EMP which will be compiled as part of the EIA process.
4.13.2	The firebreaks around the site would also have a negative visual impact.	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	Comment noted.

4.14 Location / Site Related Impacts

NO.	THEME: LOCATION / SITE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.14.1	In general the proposed plant will have an extreme negative effect on the area. This is not the ideal place to erect the plant. The applicant has not investigated any other location. In and around Vaalwater there are various locations more suitable with no or little impact on surrounding areas and owners.	Formal Letter Faxed: Received 05 July 2010	Mr. Dirk Breedt (Breedt Boerdery – adjacent property owners)	Comment noted. The site has been identified based on the basis of grid connection requirements and land availability.
4.14.2	Wanted to know why this specific site was chosen and not a site nearer to town?	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	A meeting has been held with Eskom and Thupela Energy and based on the connection requirements from Eskom the proposed site is considered to be the most feasible site to link into the electricity grid. This is based on the requirements of the VS and VG lines. Details of this meeting will be included in the EIA Report in which more specific technical details regarding the issue can be provided. In addition, the property is available for development based on the

NO.	THEME: LOCATION / SITE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				landowners consent provided.
4.14.3	Mr. Calcott indicated that the total land area to be utilised would be between 10 ha to 15 ha. The draft Scoping Report indicated that the total land area to be used would be between 40 ha to 50 ha.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	
4.14.4	Mr. Calcott indicated that the facility would not be expanded. This is untrue as the Scoping Report noted that the facility could be extended if the demand increases.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	
4.14.5	How far is the proposed site from Vaalwater? Do you need to travel on gravel roads?	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	The facility is proposed to be established on a degraded pasture land on a portion of Portion 2 of the Farm Goedgevonden KR 104, located approximately 24 km east of Vaalwater within the Modimolle Local Municipality, Limpopo Province. Approximately 12 km of the 24 km is gravel road. The locality map (hard copy) of the study area was provided to Mr. Siebe. The larger site covers an

NO.	THEME: LOCATION / SITE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				<p>area of approximately 50 ha, with the development footprint for the proposed facility being approximately 20 ha. The location of the facility within the larger site will be informed by the outcomes of the EIA process.</p> <p>The proposed study area is situated within the transitional zone of the reserve and not within the buffer or core areas of the Biosphere. The north-western beacon of the farm boundary borders the Waterberg Biosphere Reserve's buffer zone. A small section of the farm (west of the secondary road) is located within the transitional zone of the Biosphere Reserve. The actual development site is not within the Biosphere Reserve. A map (hard copy) indicating the proposed study area and its location within the Waterberg transitional zone and buffer zone was provided to Mr Siebe.</p>

THEME: LOCATION / SITE RELATED IMPACTS				
NO.	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.14.6	Is the study area already determined (fixed)? Why was this site chosen?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	<p>A meeting has been held with Eskom and Thupela Energy and based on the connection requirements from Eskom the proposed site is the most feasible site to link into the electricity grid. This is based on the requirements of the VS and VG lines. The benefit of the project is that it will supply a back feed to the VS line, and it will benefit day time electricity generated, in order to stabilise the voltage. The proposed aim of the project is therefore that it will provide additional electricity to the area which is severely affected by electricity outages.</p> <p>In addition, the property is available for development based on the landowners consent provided.</p>
4.14.7	Can the proposed project 'go bigger'?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Charles Baber: Boschdraai	The current size of the plant is determined as per the power line and substation requirements. If the plant would be enlarged, the power lines and the substation in the

NO.	THEME: LOCATION / SITE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				Vaalwater area also needs to be upgraded. It is thus not anticipated that the project could be enlarged.
4.14.8	Why was the specific site chosen?	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	During the feasibility study the applicant met with Eskom. Based on Eskom's input it was indicated that due to the long distance of the distribution line, they have difficulty in maintaining the voltage. They thus have a number of losses associated with that. Thupela Energy cannot link in with the grid near Vaalwater as the Vaalwater substation is almost at capacity. If they link in the middle of the line's length, they would link directly with the VS Line which would assist in maintaining the voltage at the end sections of the line and therefore reduce the number of losses associated with the length of the line
4.14.9	Would it be possible to erect the facility at another site?	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	A photovoltaic facility can be placed at any other site where there is sufficient sun. The link with the existing grid, however, would have

NO.	THEME: LOCATION / SITE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				to be taken into consideration.

4.15 Technical Related Issues

NO.	THEME: TECHNICAL RELATED ISSUES			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.15.1	Which direction will the panels face?	Minutes of Focus Group Meeting: 21 June 2010	Mr Mark Jurgens (Paracon Holdings and adjacent property owner)	The panels will rotate as the sun rises and as the sun sets in order to maximise capacity and to obtain the maximum amount of sunlight as possible. Various studies have been conducted which confirms that there will be no reflection from the panels.
4.15.2	The draft Scoping Report indicated that machinery would be used in the event that sheep cannot be used. Mr. Calcott stated that no machinery would be used to maintain the grass.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	
4.15.3	Will the panels attract lightning?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Charles Baber: Boschdraai	The probability is very low. The PV panels will be low (most likely less than 4m in height). The earthing of the facility is very important and will be done in the correct way to address this issue.
4.15.4	Is this project based on studies done in other parts of the world?	Minutes of Adjacent Landowners	Ms. Cally Heal: Farm Rainbows End	Various studies with regards to PV plants have been done in other

NO.	THEME: TECHNICAL RELATED ISSUES			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
		Meeting: 28 June 2010		parts of the world such as Spain and Australia. However, in South Africa this technology has not been developed and has not yet matured.
4.15.5	How does the size of this PV plant compare to other similar facilities in other parts of the world?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Ms. Lulu Merveldt: Orcom Trading	In terms of the general size of similar facilities found worldwide, it can be classified as a very small plant. However, in South Africa very few such plants exist or are installed. Countries such as China, Germany and the USA are well developed in terms of PV technology.
4.15.6	Are the panel's covered by glass?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Charles Baber: Boschdraai	The glass on the panels will be covered by silicon. This is a very robust material and will protect the glass against rain and hail.
4.15.7	Will light aircrafts be affected by the reflections from the panels?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Ms. Cally Heal: Farm Rainbows End	It is anticipated that the pilots will see the panels as they would see a lake. No observer on ground level will experience reflection from the panels. The reflection goes back to the sun, and at dawn the reflection passes the sun. The panels will follow the line of the sun, like a

NO. THEME: TECHNICAL RELATED ISSUES				
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				sunflower.
4.15.8	Alternative energy and sustainable development in general cannot justify the proposed PV plant. The negative impacts of a large power station such as Medupi near Lephalale (Ellisras) cannot be used to justify this project. Eskom did not do proper planning, but that does not justify the fact that the surrounding landowners will be negatively impacted by the proposed PV facility. This facility was seen as a quick fix solution by the speaker.	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	In terms of government policy, alternative energy sources need to be investigated. A PV plant is the best solution for South Africa, taking into account the amount of sunlight we have available. We need to reduce the use of coal.
4.15.9	Will there be lights installed at the plant to be used at night?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Johan Vorster: Sterkstroom	No high mast lights will be installed on site as it would also interfere with the operations of the plant due to shading. It is planned that infrared security cameras will be used.
4.15.10	What maintenance is required?	Minutes of Adjacent Landowners Meeting: 28 June 2010	Mr. Willie van Rooyen: Sterkstroom Boerdery and Matlapaning Lodge	The only maintenance required is the cleaning of the panels which will be done at night by a small team of workers. The panels will be cleaned through the use of a vapourised compressor. The team will probably make use of torches

NO.	THEME: TECHNICAL RELATED ISSUES			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				to undertake this work.
4.15.11	How would the proposed project assist the Modimolle area with regards to electricity supply?	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	The electricity generated would be supplied back to the Eskom grid in order for them to determine where the need for electricity would be. It is anticipated that the proposed project would assist with the demand in the Vaalwater area as the Vaalwater substation (20 MW) was almost at capacity. The proposed project could assist to alleviate the pressure on the local system during the daytime. At night time and when it is raining there would have to be a back up from the Eskom system. During the day they would thus alleviate the demand from Eskom and its power stations which would benefit the region and electricity supply overall.
4.15.12	As far as he understands, the proposed project would thus upgrade the carrying capacity of Eskom and not the MLM. The ideal would be to supply the electricity directly to the MLM so that	Minutes of Focus Group Meeting: 2 August 2010	Mr. Hunter Phogole: MLM	The proposed project would create additional power to Eskom, therefore Eskom would thus have spare capacity to supply the MLM. According to the relevant

NO.	THEME: TECHNICAL RELATED ISSUES			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
	they know that the MLM would receive the benefits in this regard. It would be ideal if the MLM could be in charge of the electricity generated to ensure local benefits.			legislation, Thupela Energy would have to supply to Eskom because it was their electricity grid.

4.16 Infrastructure Related Impacts

NO.	THEME: INFRASTRUCTURE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
4.16.1	The infrastructure (roads, water, storm water and so forth) would not be able to handle the additional pressure of the facility. The fact that there would be permanent security personnel and night shift personnel would worsen the problem.	Comments provided telephonically to Batho Earth: 8 July 2010	Mr. Willie van Rooyen (Property owner: farm Sterkstroom)	Potential impacts on this regard will be assessed through the social impact assessment.
4.16.2	What is the end purpose of the project and what additional infrastructure will be required?	Minutes of Focus Group Meeting: 28 June 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	The aim of the project is to generate electricity which will be fed directly into the Eskom grid. The facility is proposed to have a generating capacity of up to 5 MW which will be achieved through the use of an array of photovoltaic (PV) panels. The facility is also proposed to have the following associated infrastructure: Roads, switching

NO.	THEME: INFRASTRUCTURE RELATED IMPACTS			
	ISSUE RAISED	DATE	COMMENTATOR	RESPONSE
				station, workshop/ storage area and a visitor centre.
4.16.3	Concerned with regards to the possible impact on bulk infrastructure and services.	Minutes of Focus Group Meeting: 2 August 2010	Mr. P. Siebe: Waterberg District Municipality: Divisional Manager Development Planning	The applicant would not require any services or infrastructure from the local municipality as the project would provide the required infrastructure and services.

5. WAY FORWARD

The public participation process continued for the entire EIA process. During the review period of the draft EIA Report, a public meeting will be held in Vaalwater. The aim of such a meeting would be to discuss the findings of the draft EIA Report and to obtain comments from I&APs in this regard.

6. CONCLUSIONS

From the above issues and comments received the following conclusions can be drawn:

- The main concerns raised revolve around:
 - The location of the site;
 - The possible visual impacts as a result of the proposed project; and
 - The possible traffic impacts as a result of the proposed project.
- Other issues raised include the impact on tourism and properties surrounding the site.