

**INTEGRATED ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED CONCENTRATED SOLAR POWER PLANT (PARABOLIC TROUGH) ON THE FARM SAND DRAAI 391, NORTHERN CAPE**

**ISSUES TRAIL**

**DEA REF: 14/12/16/3/3/3/205**

**March 2016**

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## 1. ENGINEERING AND DESIGN

ISSUE/COMMENT	RAISED BY	RESPONSE
Johan Maritz queried if the generators or any machinery on the CSP plant might generate a low frequency noise that would affect his wild animals on his farm.	Johan Maritz at the Public Participation Meeting held on the 20th of July 2015	In review of the results calculated from the propagation model (see Noise Assessment), it indicates that the cumulative effects of the operations are minimal on the surrounding environment and the majority of noise will be localized to the source. It is not foreseen that any machinery on site would have any effect on the surrounding area.
Poppie Howell wanted to know how frequently the solar panels and mirrors would be cleaned of dust. She also indicated that it must be kept in mind that the water from the area leaves a scaly residue.	Poppie Howell at the Public Participation Meeting held on the 20th of July 2015	The mirrors require periodic cleaning, varying typically between fortnightly to weekly, depending on the local conditions which affect the rate of dust deposition on the mirrors. The water used for mirror cleaning will be demineralised, it is crucial that the cleaning water be pure, to avoid abrasion of the front surfaces of the mirrors while using the high pressure cleaning equipment.
The area is known for heavy hail storms that have killed livestock. How will the panels and mirrors accommodate such a challenge?	Poppie Howell at the Public Participation Meeting held on the 20th of July 2015	Solar PV panels, parabolic trough collectors, and central receiver heliostats are designed to withstand the impacts of hailstones. The Applicant will ensure that all technology selected for the Projects meets the necessary requirements for local hail exposure.

## 2. CONSTRUCTION

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Peter Kotze stated that all farmers and landowners surrounding the solar plants should have first choice on all off-cuts (wood, steel etc.) generated on the sites.	Peter Kotze at the Public Participation Meeting held on the 20th of July 2015	The EMPr has accommodated the condition where:  A memorandum of understanding must be reached between the Developer, Surrounding Farmers & IAPs and the Local Municipality on the distribution of excess materials that will not be used on site.
Ordain Riba queried if each project would be planned/designed separately. He highlighted that it could be beneficial if the three sites could be planned in such a sense as to accommodate each other. He used a central storage area that can be used by all three sites as an example.	Ordain Riba at the Public Participation Meeting held on the 21th of July 2015	Mr Rwigema indicated that the option would be considered during the design stage of the project. He also indicated that it must be noted that the possibility exists of each site being constructed during separate timeframes.  The Applicant confirms that the various plants will be designed to maximise the use of shared infrastructure within the bounds.

### 3. TRAFFIC

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<p>All the farmers indicated, during the Public Participation meeting, that the foreigners and the truck drivers are endangering the lives of the locals and farmers that are using the road. They do not adhere to the speed limits and drive recklessly. This will surely be a problem during the Sand Draai project.</p>	<p>All I&amp;APs at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The Proponent has met with ACWA Power and the Northern Cape Department of Transport with a possible memorandum of understanding in this regard. The cost of tarring a part of the identified gravel road (+- 20 km) has a cost implication of R100 million, which would make competitive bidding for the CSP project very difficult. However with the 4-5 planned future solar plants, in the area, a co-operative effort is being explored.</p>
<p>Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects due to:</p> <p>The state's access roads are in appalling conditions due to the high volume of traffic on the roads by developers and contractor's. This matter must be addressed before any site development/ construction is undertaken.</p>	<p>Andre Kruger via e-mail sent on the 20<sup>th</sup> July 2015</p>	<p>The Proponent is aware of the inadequacy of the portion of the Gariep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrika Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutions.</p> <p>The Proponent has met with ACWA Power and the Northern Cape Department of Transport with a possible memorandum of understanding in this regard. The cost of tarring a part of the identified gravel road (+- 20 km) has a cost implication of R100 million, which would make competitive bidding for the CSP project very difficult. However with the 4-5 planned future solar plants, in the area, a co-operative effort is being explored.</p>
<p>The Groblershoop Farmers Association indicated:</p> <p>Gariep and extension roads from Groblershoop to Griekwastad joining, as well as Groblershoop to Griekwastad connection to Groblershoop/Upington via Wegdraai as experience with Bokpoort Project the mentioned routes gets used intensively during construction phases, which are going to double with Bokpoort 2/Sanddraai 1. Both are secondary roads.</p> <p>The result of all the traffic and speed of the vehicles is that the roads service has been worn out creating terrible dust. Northern Cape Roads Department does not have the capability to regularly service the roads and the current Construction Contractor, despite written undertakings cannot maintain the roads.</p> <p>The bad service of the roads are also causing damage to all vehicles on the roads and shortening the serviceable years of the vehicle from 5 to 1 year since maintenance and repair costs are no longer economically viable. The road service needs to be tarred, under</p>	<p>Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015</p>	<p>The Proponent is aware of the inadequacy of the portion of the Gariep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrika Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutionst.</p> <p>The Proponent has met with ACWA Power and the Northern Cape Department of Transport with a possible memorandum of understanding in this regard. The cost of tarring a part of the identified gravel road (+- 20 km) has a cost implication of R100 million, which would make competitive bidding for the CSP project very difficult. However with the 4-5 planned future solar plants, in the area, a co-operative effort is being explored.</p>

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proper supervision of a knowledgeable Engineer in Road Construction, so that the roads would be able to handle the heavy loads without crumbling and creating potholes.		
The Groblershoop Farmers Association indicated: Has been done (for Bokpoort), but has the results of this been kept from IAP preventing us from obtaining the existing facts.	Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015	A Traffic Impact Assessment has been undertaken during the EIA phase for the Sand Draai projects and all observed data is obtainable from the report (See Appendix D10).

**4. ENVIRONMENTAL**

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All I&APs indicated that the dust generated from the gravel road between the N8 & N14 is a source of major concern. They also indicated that the amount of dust being generated by the road is affecting their produce and livestock which in return affects their income.	Poppie Howell, Louis Kotze, Peter Kotze, Wilco Fourie & Johan Maritz at the Public Participation Meeting held on the 20th of July 2015  Also see e-mail received on the 20 <sup>th</sup> July 2015 from Andre Kruger	The matter of dust emissions will be thoroughly investigated by the Air Quality specialist during the EIA phase. The dust impacts will also be investigated by Agricultural and Economic specialists. In addition, the proponent will also meet with ACWA Power and the Northern Cape Department of Transport with a possible memorandum of understanding in this regard. The cost of tarring a part of the identified gravel road (+- 20km) has a cost implication of R100 million, which would make competitive bidding for the CSP project very difficult. However with the 4-5 planned future solar plants, in the area, a co-operative effort could be explored.
Louis Kotze indicated that no Climatological study was conducted for the Scoping phase and requested that a detailed assessment be conducted during the EIA phase. He further indicated that it was brought to the farmers attention that there is a temperature difference of at least 10°C between being on the Bokpoort site and the surrounding areas or farms. He therefore wanted to know what affect the new CSP plant would have on the climate or the micro climate of the surrounding area. The possibility of all the solar plants generating a "heat island" must also be investigated.	Louis Kotze at the Public Participation Meeting held on the 20th of July 2015	The Air Quality Assessment investigated the impact of the proposed sites on the surrounding areas. The development of a heat island or any kind of climatological impacts has been noted to occur in areas where the natural environment "grasslands specifically" has been replaced by infrastructure for solar projects. This is particularly noted in projects of 50MW and greater.  It is expected that during the day at a height of 2.5m above the array, an increase in temperature is noted to reach up to 1.9C warmer than the surrounding ambient air, with the thermal increase having completely dissipated 11.5m above the array. It is likely that by a distance of 300m from the edge of the array, the temperature is approximately 0.3C above ambient temperature. Therefore the temperature would have return to ambient temperature if one moves more than 300m from each site.  It has also been noted that overnight the array will completely cool and lose all thermal head. below shows thermal modelling to indicate how heat builds up within the array, which is also wind dependant. Access routes within the array are also noted to reduce the heat build-up substantially.

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<p>Johan Maritz queried if the generators or any machinery on the CSP plant might generate a low frequency noise that would affect his wild animals on his farm. He requested that special attention be given to this during the Noise Specialist study conducted in the EIA phase.</p>	<p>Johan Maritz at the Public Participation Meeting held on the 20th of July 2015</p>	<p>In review of the results calculated from the propagation model, it indicates that the cumulative effects of the operations are minimal on the surrounding environment and the majority of noise will be localized to the source. It is not foreseen that any machinery on site would have any effect on the surrounding area.</p>
<p>Johan Maritz queried what the visual impact would be on his wild life and hunting business? Mr Maritz indicated that the generation of his yearly income is dependent on giving a real live “African” experience to hunters from overseas. These tourists would not want to come to his farm if they are able to see structures that remind them of the city.</p>	<p>Johan Maritz at the Public Participation Meeting held on the 20th of July 2015</p>	<p>During the Visual Assessment it was found that the sheer height of the central receiver tower (250m) would result in the upper parts of the tower, and importantly the brilliantly illuminated receiver at the top of the tower being visible from a very wide radius around the development site. Analysis of the viewsheds indicate that under both alternative scenarios the top of the tower (receiver) would be visible from the vast majority of receptor locations in the study area, including from most of the receptor locations within the lower-lying elevation of the Orange River valley. The height of the upper part of the tower entails that the intervening (higher-lying) topography between these receptors in the valley bottom of the river (even for many of the receptors on the eastern side of the river) does not shield the upper part of the tower from view.</p>
<p>Poppie Howell queried if the rare species of swallow that are found in the Pruinsberg area will be affected by the proposed CSP tower and mirrors?</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The Avifaunal specialist found that sparrow species will most likely be affected by the CSP tower and heliostats. These impacts included, solar flux, collisions etc. It must be noted that no rare species of sparrows were recorded during the two seasons of avifaunal minoring. Only Non-Priority species of sparrow were observed.</p>
<p>Poppie Howell queried how trees and plants, that need to be moved or re-located, will be handled as most species in the area are very fragile.</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>DAFF permits will specify the procedures to be followed when re-location of trees are to be undertaken. The Flora specialist will also be requested to identify any best practice methods to ensure success</p>
<p>Samantha de la Fontaine indicated that during the EIA that was conducted for the Abengoa CSP plant it was discovered that Flamingos are greatly affected due to a shrimp species that was found in pools and ponds during the rainy season. The Flamingos are dependant on these shrimps.</p>	<p>Samantha De la Fontaine at the Public Participation Meeting held on the 21th of July 2015</p>	<p>During the Avifaunal Assessment and Monitoring (Two Seasons) no indication of any flamingos were found. According to the SABAP2 data records, the closest area where flamingos can be found is in Upington. It is not foreseen that the Sand Draai projects will have any effect on flamingo species.</p>
<p>Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects due to:</p> <p>The availability of water from the river is in question and therefore it cannot be allowed that water be obtained for construction or operational purposes. Mr Kruger also recommended that the SADC and ASSOCOM agreements be looked at including the required EIA and not just the BA reports.</p>	<p>Andre Kruger via e-mail sent on the 20th July 2015</p>	<p>The recommended agreements and EIA/BA reports will be investigated during the Water Use License Application and will be used to make an informed decision.</p>
<p>Jacoline Mans commented in a letter from the Department of</p>	<p>Jacoline Mans via letter (e-mail) sent</p>	<p>The Ecological Assessment identified <i>Boscia albitrunca</i> species to be present and prominent in the area. The Department of Agriculture, Forestry and Fisheries (DAFF) will have to be approached to</p>

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<p>Agriculture, Forestry and Fisheries that:</p> <ol style="list-style-type: none"> <li>1. The proposed developments are immediately adjacent to the existing Bokpoort Solar Energy Facility, which was also developed by Solafrica and significant impacts on <i>Boscia albitrunca</i> and other protected plants and trees. The developer should note that this Department will assess cumulative impacts on protected trees and an additional offset may be required to compensate for any further impacts on slow growing protected trees.</li> <li>2. Kindly assess the potential impact on protected trees and provide accurate estimations on the number of trees to be destroyed per project and the size classes of affected trees. Areas with higher densities protected trees should be regarded as sensitive and avoided as far as possible. The sensitive dune areas (if present) should be avoided as far as possible and it is recommended that a mammal impact assessment be conducted, focusing on nocturnal ground-dwelling mammals that might be destroyed on site. Impacts on the endangered Lower Gariep Alluvial Vegetation type should be minimized by avoiding the riparian zone, which may contain the protected <i>Euclea pseudebenus</i> and other trees.</li> </ol>	<p>on the 7<sup>th</sup> August 2015</p>	<p>obtain the required permits for the removal of any protected tree species. It was recommended that these trees are not unnecessarily removed from the ecosystem. It has been recommended in the EMPr that a pre-construction, by a specialist, site walkthrough be undertaken where a count of all protected trees be undertaken to get an accurate survey on the number of trees to be destroyed.</p> <p>During the Ecological Assessment it was found that during the construction phase of the proposed CSP plant, habitat destruction and alteration inevitably takes place. This happens with the construction of access roads, and the clearing of the vegetation on the site for the CSP plant. These activities will have an impact on the associated vegetation and fauna; especially ground living and fossorial species occurring within and in close proximity of the CSP site, both through modification of habitat and disturbance caused by human activity.</p>
<p>The Groblershoop Farmers Association indicated that:</p> <p>Dust is a huge factor that leads to massive crop loss next to the mentioned roads. This in return threatens the futher existence of products and food production.</p> <p>The product grade are warring low and of no economical value due to the dust layer on the grapes. The dust acts like sandpaper which removes the wax layer on the grapes, that would normaly protect the grapes. Without the wax layer on the grapes, the grapes are damaged before harvesting time; a condition called Botritus occurs that causes the grapes to go rotten. This has an effect on export grapes, raisins and wine. As experienced with the previous harvest, crops were a lot smaller and potential earnings much lower and this effected all other produce such as corn, mielies, luscern, cotton...etc.</p>	<p>Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015</p>	<p>Dust monitoring undertaken during the EIA phase indicated that over an average 24-hour period the national maximum dust exceedances for the southern part of the Gariep road is not exceeded, and marginally so for the northern road.</p> <p>In addition to this the agricultural expert pointed out that possibly the largest portion of the Gariep Road dust falls within a ten metre boundary on each side of the Road. Further inspection deeper onto the farm land shows little evidence of dust deposits. The RHDHV air quality report corroborates this physical evidence.</p> <p>It was concluded that the dust fall-out is very unlikely to materially impact the agricultural land-yields in the study area. It is possible that from time to time, given the right wind and traffic conditions, that more dust will generate than normal, but this is unlikely to materially affect the average agricultural yields in the area</p> <p>The air quality assessment found that fugitive dust can adversely affect human health, however it is important to note that impacts will be of a temporary nature, only occurring during the construction</p>

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<p>This has a total effect; smaller crops, leading to lower earnings in turn job losses, leading to increase in crime, as we are currently experiencing. The socio economic impact from this costs the tax-payers huge amounts due to investigations, apprehending, sentencing, bail supervisoin and rehabilitation. Dust can spread as far as approximately 10km, depending on wind direction and speed.</p> <p>Livestock and animals eat the dust contaminated vegetation. The dust sediments accumulate in the animals digestive systems and cause delayed growth and low market value of animals eating the surrounding natural vegetation and feed that has been subjected to these huge amounts of dust. Animals need to be fed for longer periods, accumulating higher costs, while at the same time quality and income of the produce are negatively affected, since the fine dust, lets the animal feel fuller faster, although they have not received the adequate nutrition. It has also been noted that only single offspring have come from the herds in the surrounding dusty areas, which adds to more loss of produce and income.</p> <p>The humans that work and stay next to the roads are exposed to inhaling the dust, which negatively effects their lungs and health. The lung diseases caused by the dust, impacts people ability which in return again puts strain on our tax-payers, through medical costs incurred and inability to generate an income to support the families or healthcare. The dust also has dermatological consequences that cause wounds to take longer to heal, get better and get septic. Proper impact studies on this impact as a whole needs to be conducted and discussed in detail.</p>		<p>period. It was however found that the dust particulates and fallout are well below the national maximum exceedances. A recommendation was made that only a specified access route be used by all contractors and that special attention be given to this road. It was recommended that the identified road be surfaced to prevent any dust generation.</p>
<p>The Groblershoop Farmers Association indicated that:</p> <p>The surrounding areas are being heated up unnaturally and the impact on humans and animals is still unknown and needs in depth investigation.</p> <p>It is already a documented fact that the mating seasons of animals are shortened by extreme heat conditions artificially incurred. Results of this impact can only now be felt since Bokpoort 1 has gone into production and the increase of heat conditions has been felt.</p> <p>Monitors to determine the heat measurements in the areas over long</p>	<p>Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015</p>	<p>The Air Quality Assessment investigated the impact of the proposed sites on the surrounding areas. The development of a heat island or any kind of climatological impacts has been noted to occur in areas where the natural environment “grasslands specifically” has been replaced by infrastructure for solar projects. This is particularly noted in projects of 50MW and greater.</p> <p>It is expected that during the day at a height of 2.5m above the array, an increase in temperature is noted to reach up to 1.9C warmer than the surrounding ambient air, with the thermal increase having completely dissipated 11.5m above the array. It is likely that by a distance of 300m from the edge of the array, the temperature is approximately 0.3C above ambient temperature. Therefore the temperature would have return to ambient temperature if one moves more than 300m from each site.</p> <p>It has also been noted that over night the array will completely cool and loose all thermal head. below</p>



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<p>periods and the impact thereof is critical and should be incorporated into the reports as well as the production/ work effectiveness of workers that should be included and the impact on workers in terms of heat exhaustion, which again leads to workforce loss and subsequent expenses and income loss.</p> <p>The Global Heating International Conference currently running to get a workable solution and international agreement by all State Leaders also creates concerns since the agreed regulations, to which the RSA should also abide by, is still unknown. The State President and Minister of Environment are also present at the conference.</p>		<p>shows thermal modelling to indicate how heat builds up within the array, which is also wind dependant. Access routes within the array are also noted to reduce the heat build-up substantially.</p>

**5. ECONOMIC**

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<p>During the Public Meeting it was stated by the farmers and landowners that, because of Bokpoort CSP and future solar projects, the value of their farms are being affected. No study was ever conducted to identify what impact these projects would have on the surrounding farms and their values.</p>	<p>Louis Kotze, Louis Kotze, Wilco Fourie &amp; Johan Maritz at the Public Participation Meeting held on the 20th of July 2015</p>	<p>During the Economic Study it was found that:</p> <p>In the short term, and based on an unsurfaced Gariiep Road, our assessment is that the land values of neighbouring farms, and some of the farms alongside the Gariiep Road will be negatively impacted because any rational buyer will want a discount for perceived uncertainty.</p> <p>It was furthermore found that farm values in the study area will recover once the Gariiep Road had been surfaced, or the construction phases of all the potential projects had been completed, whichever comes first.</p>
<p>During the Public Meeting the farmers also indicated that farmers and landowners use personal vehicles to transport their goods. These vehicles are being damaged by the bad condition of the road caused by the Bokpoort project (and will surely get worse) and they have to bare the costs.</p>	<p>Louis Kotze, Peter Kotze, Wilco Fourie &amp; Johan Maritz at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The Proponent is aware of the inadequacy of the portion of the Gariiep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrica Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutions. A detailed solution will be reported and incorporated into the EIA report.</p>

## 6. SOCIAL

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<p>Louis Kotze mentioned that projects like this (Sand Draai and other CSPs) has a negative social impact on the surrounding area. As he discovered a contractor, one night, had picked up a bunch of girls (some minors) and provided drugs and alcohol to them.</p>	<p>Louis Kotze at the Public Participation Meeting held on the 20th of July 2015</p>	<p>One of the mitigation measures that will be proposed is that a Contractor's Code of Conduct be developed and implemented. This is an important tool that will control and monitor the contractors behaviour within and external to the development site. Fraternisation with the local population would also have certain moral and ethical criteria to be followed. .</p>
<p>Ms Scheepers requested that all affected parties be invited to meetings before and when the Sand Draai construction is being undertaken. This includes all landowners, farmers and municipal representatives.</p>	<p>Teresa Scheepers at the Public Participation Meeting held on the 20th of July 2015</p>	<p>Royal HaskoningDHV has included this request into the EMP for the proposed project.</p>
<p>Mr P Kotze indicated that noise was a problem during the construction of Bokpoort and will most certainly be a problem during the Sand Draai project. He requested that this be investigated and a solution found.</p>	<p>Peter Kotze at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The Noise Impact Assessment indicated that:</p> <p>In review of the results calculated from the propagation model in the previous section it indicates that the cumulative effect of the operations are minimal on the surrounding environment and the majority of noise will be localised to the source. This is in line with the findings of Tsoutsos et al. "The noise from the generating plant of large scale schemes is unlikely to cause any disturbance to the public."</p> <p>The largest impact is during the construction phase of the project with the noise extending far beyond the Sand Draai boundary. The closest receptor indicates that there is no effect on the noise level experienced during the life cycle of the planned solar technology.</p>
<p>The !Kheis Municipality's infrastructure is currently not built to accommodate or keep up with the influx of people in the area. This will become even more of a concern when other projects are to be built. These infrastructures include:</p> <ul style="list-style-type: none"> <li>• Water Supply Infrastructure;</li> <li>• Sanitation Infrastructure;</li> <li>• Waste Management Infrastructures; and</li> <li>• Medical Facilities/ Clinics</li> </ul> <p>Due to this the !Kheis Municipality is experiencing difficulties in providing proper services.</p>	<p>Teresa Scheepers at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The projects will include budgets for Socio-Economic Development initiatives as well as Enterprise Development initiatives. The ultimate committee appointed to manage these budgets can work with the Municipality to identify Municipal projects that may be included as supported initiatives.</p>
<p>It was brought to the attention of the team that the construction of Bokpoort and any future developments will have a social impact on the surrounding area. Ms Scheepers indicated that violence, drug</p>	<p>Teresa Scheepers at the Public Participation Meeting held on the 20th of July 2015</p>	<p>All contractor activities on the site and external to the development site are to be regulated via the Contractors Code of Conduct. If necessary, disciplinary measures are to be rolled out via the Site management's internal disciplinary process. This assumes that site staff can be directly linked to</p>

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<p>use, crime etc. has increased in the past year or so due to the construction of the Bokpoort site.</p>		<p>disorderly and illegal behaviour that results in social ills.</p>
<p>Poppie Howell indicated that due to Bokpoort and future developments. A major social impact will be felt as “Solar Babies” will be born. How will this be prevented or mitigated. She also indicated that the spreading of HIV/ AIDS is a major concern.</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>One of the mitigation measures that will be proposed is that a Contractor’s Code of Conduct be developed and implemented. This is an important tool that will control and monitor the contractors behaviour within and external to the development site. Fraternisation with the local population would also have certain moral and ethical criteria to be followed.</p>
<p>Susanna Booyens indicated in her letter that she and the public do not have a problem with the construction of such projects in the area. She mentioned that there is unhappiness in regards to foreigners being used as labour on such projects. She indicated that the town is being neglected and suffers due to infrastructure damages by trucks and vehicles for the project. She indicated that the town/ community is very small and poor and the locals feel that more can be done to create jobs for them on the proposed sites.</p>	<p>Letter received via e-mail on the 26th of August 2015 from Susanna Booyens</p>	<p>The EAP supplied Ms. Booyens with the BID document that supplies her with the requested information regarding the 3 proposed projects and the EIA phase.</p> <p>The EAP also informed Ms. Booyens that the project is currently in the EIA phase and that any information regarding when construction would start and how to apply cannot be given yet as it is not yet available. The EAP indicated that information regarding construction will most likely be communicated to the Local Municipality to be communicated to all.</p>
<p>She also asked the following questions:</p> <ul style="list-style-type: none"> <li>• When does the proposed construction start?</li> <li>• What are the 3 projects about?</li> <li>• If I want to apply for a job during construction, how do I go about doing it?</li> <li>• What should my qualifications be?</li> <li>• What do I have to keep with me during application?</li> </ul>		
<p>The Groblershoop Farmers Association indicated:</p> <p>During the construction phase hundreds of local labour get work for a limited time period as well as during longer periods of available work there is an abnormal influx of labour to the area, which after completion of the work remains in the area, especially experts from outside of South Africa without the required work permits, which once again creates problems for tax-payers in terms of healthcare as a single factor</p>	<p>Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015</p>	<p>The issue with regards to the residence of ‘illegal’ migrants is a Government issue to tackle. Site management can render the correct communication to migrants with regards to their legal status period while in South Africa, and can also forward all migrant details to the Department of Labour (as a lawful action). However, Site management cannot enforce the law.</p> <p>Should the influx of labour become a very real, uncontrolled challenge, then it is suggested that a Migrant Labour Influx Control Plan be developed together with the local municipality. While Site management will never be in a position to enforce laws, they can however enforce the plan.</p>

## 7. SAFETY

ISSUE/COMMENT	RAISED BY	RESPONSE
The farmers indicated that accidents, on the gravel road, happen on a regular basis. These accidents are caused by the dust that impairs visibility, the bad condition of the road etc.	Louis Kotze, Peter Kotze, Wilco Fourie & Johan Maritz at the Public Participation Meeting held on the 20th of July 2015	The Proponent is aware of the inadequacy of the portion of the Gariiep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrica Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutions. A detailed solution will be reported and incorporated into the EIA report

## 8. GENERAL

ISSUE/COMMENT	RAISED BY	RESPONSE
Peter Kotze indicated that they as farmers do not have sufficient internet or the time to go and review at any Scoping and EIA reports at local areas. He therefore requested that these reports be delivered to them, in either hard copy or soft copy (on CD) format, personally or by courier at their houses.	Peter Kotze at the Public Participation Meeting held on the 20th of July 2015	Malcolm Roods indicated that the EAP will deliver CD's or hard copies to the landowner. Copies of CD's will also be left at the public library for collection.
Louis Kotze indicated that Bokpoort CSP is already being constructed and that agreements and promises, that were made during the EIA process for Bokpoort, have not been adhered to or kept (as they fell through the cracks when the contract was given to ACWA). He requested that a clause or method be looked at that will ensure that any agreements made be kept. The example to this statement is the upkeep of the N8 & N14 gravel road that has been a problem area.	Louis Kotze at the Public Participation Meeting held on the 20th of July 2015	During the EIA phase an Environmental Management Programme (EMPr) will be created that sets out measures and action plans for the entire the life cycle of the project.  This includes the: <ul style="list-style-type: none"> <li>• Pre-Construction Phase;</li> <li>• Construction Phase; and</li> <li>• Decommissioning &amp; Rehabilitation Phase</li> </ul> Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all commitments post the EIA captured in the EMPr.
Louis Kotze indicated that it must be known and kept in mind that the N8 & N14 road was designed and constructed for the use of transporting farm goods and vehicles. It was not designed to carry	Louis Kotze at the Public Participation Meeting held on the 20th of July 2015	The Proponent is aware of the inadequacy of the portion of the Gariiep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering

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ISSUE/COMMENT	RAISED BY	RESPONSE
<p>heavy load vehicles that deliver materials to the Bokpoort site. That is why the road is being destroyed. Mr L Kotze indicated that there is no other option but to tar that road if it is to be used for the planned future developments which include Bokpoort 2 Expansion and the 3 Sand Draai plants.</p>		<p>efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrica Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutions. A detailed solution will be reported and incorporated into the EIA report.</p>
<p>Louis Kotze raised his concern that, at the moment, contractors are using the gravel road between the N14 and the Transnet bridge and cross over a small canal bridge that is not designed to carry such heavy loads. He indicated that if this bridge is to collapse and prevent water from reaching the farmers, it would have cost implications of millions of Rands.</p>	<p>Louis Kotze at the Public Participation Meeting held on the 20th of July 2015</p>	<p>More than one study (Air Quality, Economic Assessment) indicated that the northern Gariep road be avoided at all times. This recommendation has also been addressed in the EMPr where it was conditioned that only the southern Gariep road (N8 access road) be used by contractors as access to site.</p>
<p>Will other similar EIAs being conducted previously and in the past be used as a guideline on preventing the same mistakes from being made?</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>All available resources are being used to ensure that future mistakes are not to be repeated and that all impacts receive adequate attention.</p>
<p>A published article indicated that allot of Northern Countries have fallen short on the sustainability of solar projects. Factors such as government subsidies expenditures that can't be accounted for and that led to financial ruins. Is there a way to assure financial accountability can be monitored to foresee better outcomes for South African solar farms?</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>The South African Department of Energy has been careful to limit and monitor the deployment of solar power projects over the first 5 years of the DOE Renewable Energy IPP programme. This cautious approach allows the DOE to monitor progress and the merits of solar power as well as ensuring that they do not overcommit to long-term procurement in terms of their financial capabilities.</p> <p>In terms of the structure of the DOE's Renewable Energy IPP programme, the DOE/Eskom will enter into 20-year agreements with the Projects in which they agree to pay the Project for any power delivered to the national grid. All other risks are transferred to the Project and its Shareholders, such risks including: on-time and on-budget construction, plant operations and performance, and financial management.</p>
<p>If projects are to be abandoned due to financial shortfalls, what precautions are in place to ensure that pollution, which would normally have been contained due to presence on site and maintenance, will not pollute the area? On who would the responsibility rest?</p>	<p>Poppie Howell at the Public Participation Meeting held on the 20th of July 2015</p>	<p>During the EIA phase a Environmental Management Programme (EMPr) will be created that sets out measure and action plans for the entire life cycle of the project.</p> <p>This includes the:</p> <ul style="list-style-type: none"> <li>• Pre-Construction Phase;</li> <li>• Construction Phase; and</li> <li>• Decommissioning &amp; Rehabilitation Phase</li> </ul> <p>These measures, accompanied with anything that was put forward in the Environmental</p>

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ISSUE/COMMENT	RAISED BY	RESPONSE
		Authorisation must be complied to for successful decommissioning and rehabilitation.
Can records like Environmental Authorisations, EMPs and Construction Contractual Terms etc. be placed on the internet for local access. Through this the public would be able to monitor if compliance goals are being met?	Poppie Howell at the Public Participation Meeting held on the 20th of July 2015	This will be produced to all I&APs on request prior to construction commencement. These documents will also be freely available and kept on site.
<p>Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects.</p> <p>He further stated that all agreements and solutions being decided on to mitigate or prevent any further impacts must be set prerequisites to ensure that they are being followed. All solutions must also be completed before any reports are submitted to the Department of Environmental Affairs for consideration by all prospective developer.</p>	Andre Kruger via e-mail sent on the 20 <sup>th</sup> July 2015	<p>During the EIA phase an Environmental Management Programme (EMPr) will be created that sets out measures and action plans for the entire the life cycle of the project.</p> <p>This includes the:</p> <ul style="list-style-type: none"> <li>• Pre-Construction Phase;</li> <li>• Construction Phase; and</li> <li>• Decommissioning &amp; Rehabilitation Phase</li> </ul> <p>Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all commitments post the EIA captured in the EMPr.</p>
<p>The Groblershoop Farmers Association indicated:</p> <p>The fundamental rights as set out in the Regulations of Human Rights in the Constitutional Act 108/96 should be abided by, consequently interested parties (IAP) are insisting to have written contracts with the developers to state their responsibilities and non-compliance rights to obtain the proper legal representation should these contracts not be abided by in terms of Art 38 of the Constitutional Law 108/96 and all other associated, consequential Laws to get implemented accordingly.</p> <p>Alternatively the developers should purchase all the surrounding properties as well as the areas/properties next to the access roads, which will mean that only the developer gets affected by the immediate impact, because the effected parties cannot carry the resulting damages and the diligent negligence accountability needs to be determined in writing in favour of the affected parties and righteousness thereof.</p> <p>The experience with construction, confirmed that although limited conditions were set in the area, enforcing the conditions is impossible</p>	Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 December 2015	<p>During the EIA phase an Environmental Management Programme (EMPr) will be created that sets out measures and action plans for the entire the life cycle of the project.</p> <p>This includes the:</p> <ul style="list-style-type: none"> <li>• Pre-Construction Phase;</li> <li>• Construction Phase; and</li> <li>• Decommissioning &amp; Rehabilitation Phase</li> </ul> <p>Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all commitments post the EIA captured in the EMPr.</p> <p>The Environmental Authorisation and EMPr will also indicate that monthly ECO audits be undertaken and reports be created. The ECO reports will always be obtainable as they are to be kept on file at all times on site.</p>

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<p>and when reporting it, people simply say they don't know, which is totally unacceptable.</p> <p>The impact studies/report (audit reports), which is supposed to be done monthly and submitted to the Environmental Department is in no way accessible and the affected parties have no input to these reports. The fact that these reports are not accessible, is not to the best interest of the IAP's photos and written undertakings. In other words; documented proof of lots of the problems with the construction of Bokpoort 1 is in our possession for collection in Groblershoop on register upon receiving written admittance of receipt.</p>		