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GEELSTERT 1, NORTHERN CAPE PROVINCE

COMMENTS AND RESPONSE REPORT

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The Geelstert 1 Basic Assessment (BA) Process was announced on Thursday, 13 July 2020 through the distribution of the process notification letter and a Background Information Document (BID). The letter and BID served to invite Interested and Affected Parties (I&APs) to register their interest in the project and to submit any comments / queries that they might have. All written comments received during the BA process to date have been included in the table below.

The Basic Assessment (BA) Report was made available for a 30-day review and comment period from **Thursday**, **20 August 2020** until **Monday**, **21 September 2020**. The Comments and Responses Report (C&RR) has been updated with comments received during the review and comment period and included in **Appendix C9** of the final Basic Assessment Report.

NOTE:

In terms Regulation 44(1) of the EIA Regulations 2014, as amended, please note that the comments raised and responses provided at the various Focus Group Meetings held during the 30-day review period of the Basic Assessment Report have not been captured in this Comments and Responses Report. The notes of the meetings are attached as **Appendix C8**.

LIST OF ABBREVIATIONS / ACRONYMS

APM	Archaeology, Palaeontology and Meteorites Unit	BA	Basic Assessment
BAR	Basic Assessment Report	BID	Background Information Document
ВММ	Black Mountain Mine	СВА	Critical Biodiversity Areas
DEFF	Department of Environment, Forestry and Fisheries	DBAR	Draft Basic Assessment Report
DAEARD & LR	Northern Cape Department of Agriculture, Environmental Affairs,	EA	Environmental Authorisation
	Rural Development and Land Reform		
EIA	Environmental Impact Assessment	EMPr	Environmental Management Programme
HIA	Heritage Impact Assessment	I&APs	Interested and Affected Parties
LO	Landowner	NEMA	National Environmental Management Act
NC DENC	Northern Cape Department of Environment and Nature	NHRA	National Heritage Resources Act
	Conservation		
OoS	Organs of State	SAHRIS	South African Heritage Resources Information System
SAHRA	South African Heritage Resources Agency	SARAO	South African Radio Astronomy Observatory
SCC	Species of Conservation Concern		

1. COMMENTS RECEIVED DURING BASIC ASSESSMENT REPORT REVIEW PERIOD

NO	COMMENT	RAISED BY	RESPONSE
1.	In Overall, there are no potential impacts associated	Seoka Lekota	The acknowledgement of impacts being within acceptable levels is noted.
	with the proposed development that are considered to	Control Biodiversity	
	be of high significance and which cannot be mitigated	Officer Grade B:	Cumulative impacts associated with the project has been fully assessed within
	to an acceptable level. As such, there are no fatal	Biodiversity	Chapter 9 of the BAR. The cumulative impact assessment has indicated that the
	flaws or other major impediments that should prevent	Conservation	contribution of the project to the significance of cumulative impacts is
	the development from going ahead. However, the	DEFF	predominately low to medium, depending on the impacts being considered. No
	potential for cumulative impact in the area is however		cumulative impacts or risks were identified to be unacceptable with the
	a concern given the large number of different	Letter: 01-10-2020	development of Geelstert 1 within the affected landscape.
	proposed renewable energy developments in the		
	area.		
	Notwithstanding the above, the following		A Search and Rescue plan is included as Appendix M(D) of the final BAR and forms
	recommendation must be considered in the final		part of the Environmental Management Programmes (EMPr) (Appendix M).
	report:		
	Search and rescue plan for the identified Species		
	of Conservation Concern (SCC) must be submitted		
	as part of the final report;		
	An ecologist must be appointed to perform a final		The requirement to undertake a walkthrough of the development footprint to
	walkthrough prior to finalisation of the final phase		identify species of conservation concern is included in Object 2 of the Planning and
	of the EIA, to identify all sensitive plant species and		Design Management Programme of the EMPr (Appendix M of the final BAR).
	assist in identifying the areas that require		
	protection;		
	The breeding site of a Verreaux's Eagle, Martial		The requirement for the avoidance of the breeding sites is included in Objective 2
	Eagle and Ludwig's Bustard on site must be		and Objective 5 of the Construction Management Programme of the EMPr
	demarcated as a NO-GO Zone;		(Appendix M of the final BAR).
	The Avifaunal specialist must determine the final		This Application for Environmental Authorisation is for the development of a solar
	pylon positions prior to construction and where bird		energy facility. No power lines are included as part of this BA process and therefore
	flight diverters are required and the installation of		this comment is not deemed relevant.
	power line pylons must be away from ecological		
	sensitive systems, and		Geelstert 1 will be connected to the national grid via the Geelstert Grid Connection
			which is being assessed as part of a separate BA Process.

	All protected fauna and flora species of conservation concern must not be disturbed or removed prior to permit approval from relevant National and Provincial authorities. The final report must comply with all the requirements as outlined in the Environmental Impact Assessment (EIA) guideline for renewable energy projects and the Revised Best Practice Guideline for Birds & Solar Energy for assessing and monitoring the impact of solar power generating facilities on birds in Southern Africa.		The requirement to obtain the relevant permits for flora and fauna is included in Objective 2 of the Planning and Design Management Programme of the EMPr (Appendix M of the final BAR). The final BAR submitted to DEFF for decision-making is in-line with the requirements of the EIA Regulations, 2014, as amended. The specialist reports have also been undertaken in-line with the requirements of the EIA Regulations, 2014, as amended, and the relevant guidelines pertaining to birds and solar energy development. Refer to the Avifauna Impact Assessment (Appendix E of the final BAR).
2.	SARAO has completed the preliminary risk reassessment about the electromagnetic emissions of the for the above-mentioned solar PV facilities and its possible impact on the SKA radio telescope. In order to fully determine the level of risk on interference to the SKA Infrastructure Territory, SARAO requires an inventory of electrical equipment that will be deployed at the facility. However, based on the limited information currently at our disposal, the facilities pose a low risk of interference on the SKA Infrastructure Territory.	Selaelo Matlhane Spectrum & Telecommunication Manager SARAO Letter: 25-09-2020	It is noted that Geelstert 1 has a low risk of interference on the SKA infrastructure territory. The developer has noted that SARAO will require an inventory of electrical equipment associated with Geelstert 1.
	SARAO does not object the project but would appreciate if an inventory of electrical equipment could be provided at a later stage, so that reassessment can be undertaken and EMI control plan developed if mitigations are required.		The developer has noted that SARAO will require an inventory of electrical equipment associated with Geelstert 1 and will consult SAROA at the appropriate stage to provide the requested information.
3.	This letter serves to inform you that the following information must be included to the final BAR: a) Please ensure that all relevant listed activities are applied for, are specific and can be linked to the development activity or infrastructure as described in the project description. Only activities	Thulislie Nyalunge Case Officer DEFF Letter: 22-09-2020	All listed activities applied for and included in the Application Form for Environmental Authorisation and section 6.2.1 of the final BAR are specific and relevant to the development of Geelstert 1.

- applicable to the development must be applied for and assessed.
- b) If the activities applied for in the application form differ from those mentioned in the final BAR, an amended application form must be submitted.
- c) It is imperative that the relevant authorities are continuously involved throughout the basic assessment process, as the development property possibly falls within geographically designated areas in terms of GN R. 985 Activities. Written comments (or proof of the attempt to obtain such comments) must be obtained from the relevant authorities and submitted to this Department. In addition, a graphical representation of the proposed development within the respective geographical areas must be provided.
- d) Ensure that the layout map indicates all supporting onsite infrastructure e.g. roads (existing and proposed);
- e) The location of sensitive environmental features on site e.g. CBAs, heritage sites, drainage lines etc. that will be affected. The map must be overlain with a sensitivity map and a cumulative map which shows neighbouring renewable energy developments and existing grid infrastructure.
- f) Signed Specialist Declaration of Interest forms must be attached to the final BAR for each specialist study conducted.
- g) Please ensure that the BAR includes an undertaking under oath or affirmation by the EAP

The listed activities applied for in the Application for Environmental Authorisation (submitted to DEFF on 20 August 2020) do not differ from those included in the final BAR; therefore, an amended application is not required to be submitted.

Notification was sent to all registered I&APs on the project database, including the relevant Organs of State. The proof of attempts to obtain comments from registered I&APs and Organs of State is included in the final BAR as **Appendix C5**.

The location of the proposed development of Geelstert 1 was represented as a locality map which was included in the BID (**Appendix C4** of the final BAR), uploaded onto the Savannah Environment Public Participation Platform and was also included in the BAR made available for a 30-day review period.

All geographically designated areas relevant to Geelstert 1 and as per the listed activities included Listing Notice 3 (GNR 324) have been considered within the final BAR. Graphical representation, in the form of maps, of the designated areas is included in Chapter 7 of the final BAR.

The layout map of Geelstert 1, as included in Figure 10.2 of the final BAR, provides an indication of all infrastructure and associated infrastructure for the proposed project.

All sensitive environmental features present within the development area and development footprint of Geelstert 1 have been identified through specialist survey and ground-truthing. The environmental sensitivity map is included as Figure 10.1 in the final BAR.

Signed specialist declarations for all specialists is included in **Appendix N** of the final BAR.

Appendix N of the final BAR includes a signed undertaking under oath by the EAP as per the template available from DEFF.

(administered by a Commissioner of Oaths) as per Appendix 1(3)(r) of the NEMA EIA Regulations, 2014, as amended, which states that the BAR must include:

- (i) an undertaking under oath or affirmation by the EAP in relation to:
- (ii) the correctness of the information provided in the reports;
- (iii) the inclusion of comments and inputs from stakeholders and I&APs:
- (iv) the inclusion of inputs and recommendations from the specialist reports where relevant; and
- (v) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties".
- h) Copies of all comments received during the draft BAR comment period; and a comment and response report which contains all comments received and responses provided to all comments and issues raised during the public participation process for the draft BAR. Please note that comments received from this Department must also form part of the comment and response report.
- i) Please ensure that all issues raised and comments received during the circulation of the draft BAR from registered I&APs and organs of state which have jurisdiction (including this Department's Biodiversity Section) in respect of the proposed activity are adequately addressed in the final BAR.
- j) Proof of correspondence with the various stakeholders must be included in the final BAR. Should you be unable to obtain comments, proof should be submitted to the

All comments received during the 30-day review period of the BAR is included as **Appendix C7**. The C&RR contains all comments received and responses from the project team and applicant (where relevant) and is included as **Appendix C9** of the final BAR.

The comments received from DEFF are included in the C&RR (**Appendix C9** of the final BAR) and have been responded to accordingly.

All comments raised and received during the 30-day review period of the BAR (including from I&APs, organs of state and the DEFF Biodiversity Section) have been recorded, included and addressed within this C&RR, as well as the final BAR where relevant.

The Public Participation Process has been conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations 2014, as amended (GNR 326), as well as in

Department of the attempts that were made to obtain comments. The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations 2014, as amended.

- k) You are further reminded that the final BAR to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of basic assessment reports and EMPr in accordance with Appendix 1, Appendix 4 and Regulation 19(1) (a) of the Environmental Impact Assessment Regulations (2014), as amended.
- Please also ensure that the final BAR includes the period for which the Environmental Authorisation is required and the date on which the activity will be concluded as per Appendix 1(3)(1)(q) of the NEMA EIA Regulations, 2014, as amended.

accordance with the approved Public Participation Plan. The approved Public Participation Plan is included in the final BA Report as **Appendix C1**.

The BA Report was made available for a 30-day review and comment period from, **Thursday**, **20 August 2020** until **Monday**, **21 September 2020**. As per the approved Public Participation Plan, the availability of the BA Report was:

- Advertised in the Gemsbok Newspaper on 19 August 2020 (tear sheet included in Appendix C3 of the final BAR).
- Announced on Radio RNFM 98.1FM, the local community radio station on 20 and 31 August and 14 September 2020 and the schedule has been included in Appendix C3 of the final BAR. The recording of the announcements is also included as Appendix C3.
- The NC DAEA,RD&LR (previously NC DENC), as the commenting authority, and relevant Organs of States were notified that the BAR can be downloaded from Savannah Environmental's website and could also be sent via other file transfer services i.e. We Transfer, Dropbox, etc. or on CD, on request, from Savannah Environmental (Appendix C5 and Appendix C6 of the final BAR).

It is confirmed that the final BAR submitted to DEFF for decision-making complies with the requirements in terms of Appendix 1 and Appendix 4 and Regulation (19)(1)(a) of the Environmental Impact Assessment Regulations (2014), as amended.

The period for which the Environmental Authorisation is required is 10 years. This has been indicated in Chapter 10, Section 10.6 of the final BAR.

The construction phase is expected to have a duration of 24 months and the operation phase is expected to be \sim 20 years, The commencement of the activities is reliant on the next bidding round of the REIPPP programme of the DMRE which is not known at this stage and therefore the date on which the activity will be concluded is not available at this stage. Further to the above, Appendix 1(3)(1)(q)

General

You are further reminded to comply with Regulation 19(1)(a) of the NEMA EIA Regulations, 2014, as amended, which states that: Where basic assessment must be applied to an application, the applicant must, within 90 days of receipt of the application by the competent authority, submit to the competent authority -

(a) a basic assessment report, inclusive of specialist reports, an EMPr, and where applicable a closure plan, which have been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority.

Should there be significant changes or new information that has been added to the BAR or EMPr which changes or information was not contained in the reports or plans consulted on during the initial public participation process, you are required to comply with Regulation 19(b) of the NEMA EIA Regulations, 2014, as amended, which states: "the applicant must, within 90 days of receipt of the application by the competent authority, submit to the competent authority — (b) a notification in writing that the basic assessment report, inclusive of specialist reports an EMPr, and where applicable, a closure plan, will be submitted within 140 days of receipt of the application by the competent authority, as significant changes have been made or

states that a BAR must include information "where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised;". Geelstert 1 includes operational aspects and will be operating for ~20 years. Therefore, this requirement of Appendix 1 of the EIA Regulations is not deemed relevant to the proposed project.

The project complies with Regulation 19(1)(a) as the final BAR has been submitted to the competent authority within 90 days of lodging the application for Environmental Authorisation. The BAR, which culminated in the final BAR, was subject to a public participation process of 30 days and includes and responds to comments received, including comments of the competent authority.

No significant changes or new information has been included in the final BAR submitted to the competent authority for decision-making. As a result, compliance of the project with Regulation 19(b) is not applicable.

basic assessment report or EMPr or, where applicable,		
a closure plan, which changes or information was not		
subregulation (1)(a) and that the revised reports or,		
EMPr or, where applicable, a closure plan will be		
subjected to another public participation process of at		
least 30 days".		
Should you fail to meet any of the timeframes		It is noted that should the prescribed timeframes in terms of Regulation 19 not be
stipulated in Regulation 19 of the NEMA EIA		met, the Application for Environmental Authorisation will lapse. The timeframes
Regulations, 2014, as amended, your application will		have been met for the Application for Environmental Authorisation for Geelstert 1.
lapse.		
You are hereby reminded of Section 24F of the National		The comment from the Department is acknowledged. The activities associated
Environmental Management Act, Act No. 107 of 1998,		with the development of Geelstert 1 will not commence until the Minister of DEFF
as amended, that no activity may commence prior to		has granted EA for the proposed development. The project will be compliant with
an Environmental Authorisation being granted by the		Section 24F(1)(a) of NEMA (Act No. 107 of 1998) of 1998.
Department		
In order to ensure that there is sufficient information for	Peter Cloete	It is noted that the comments raised are related to the impacts on biodiversity.
an informed decision to be made, please address the	Production Scientist:	
necessary ecological issues as outlined in the letter.	Ecologist	
Please note that the comments only pertain to the	NC DENC	
biodiversity related impacts and not to the overall		
desirability of the proposed development.	Letter: 21-09-2020	
Herewith the comments for the proposed		
developments:		
2.1. The ecological specialist study was conducted for		Only the development and utilisation of solar PV technology is being considered
a PV solar development. If another solar		for the Geelstert 1 solar energy facilities. No other solar technologies are being
technology should be decided upon, depending		considered at this stage and therefore this comment is not relevant to the project.
impacts may differ.		
_	EMPr or, where applicable, a closure plan will be subjected to another public participation process of at least 30 days". Should you fail to meet any of the timeframes stipulated in Regulation 19 of the NEMA EIA Regulations, 2014, as amended, your application will lapse. You are hereby reminded of Section 24F of the National Environmental Management Act, Act No. 107 of 1998, as amended, that no activity may commence prior to an Environmental Authorisation being granted by the Department In order to ensure that there is sufficient information for an informed decision to be made, please address the necessary ecological issues as outlined in the letter. Please note that the comments only pertain to the biodiversity related impacts and not to the overall desirability of the proposed development. Herewith the comments for the proposed developments: 2.1. The ecological specialist study was conducted for a PV solar development. If another solar technology should be decided upon, depending on the specific technology, the environmental	the initial public participation process contemplated in subregulation (1)(a) and that the revised reports or, EMPr or, where applicable, a closure plan will be subjected to another public participation process of at least 30 days". Should you fail to meet any of the timeframes stipulated in Regulation 19 of the NEMA EIA Regulations, 2014, as amended, your application will lapse. You are hereby reminded of Section 24F of the National Environmental Management Act, Act No. 107 of 1998, as amended, that no activity may commence prior to an Environmental Authorisation being granted by the Department In order to ensure that there is sufficient information for an informed decision to be made, please address the necessary ecological issues as outlined in the letter. Please note that the comments only pertain to the biodiversity related impacts and not to the overall desirability of the proposed development. Herewith the comments for the proposed developments: 2.1. The ecological specialist study was conducted for a PV solar development. If another solar technology should be decided upon, depending on the specific technology, the environmental

2.2. The cumulative impacts of the other developments (e.g. mining as well as other solar developments) in the surroundings must be considered in the study. Not to say that the applicants needs to take responsibility for other developers but to assess the impacts of the proposed development on ecosystem function and specific vegetation units and/or protected species on a local and regional scale. According to the Vegetation Map of South Africa the vegetation in the study area includes Bushmanland Arid Grassland, Bushmanland Sandy Grassland and Bushmanland Vloere.

(Figure 2: Included in Appendix C7 of the final BAR)

2.3. Major changes have however occurred thus far as these vegetation units are under severe constraint due to agricultural activities (overgrazing, etc.) recent renewable energy developments and the recent drought. Yet only 0.4% of Bushmanland Arid Grassland vegetation unit is formally protected (though conservation land in the vegetation unit has been added up to 2006) and it has a conservation target of 21%.

As the vegetation types occurring on site are known to contain numerous Species of Conservation Concern, a detailed survey must be undertaken by the botanical specialist during the peak flowering season to ensure that important plant populations are not affected by the development proposal. All indigenous protected species listed in Schedule 1, 2 and 3 respectively,

Cumulative impacts associated with the proposed development, existing developments and other future developments have been considered in the Ecological Impact Assessment (Appendix D of the final BAR). The results indicate that the cumulative ecological impacts will be of a low to medium significance which is considered to be acceptable from an ecological perspective.

The Ecological Impact Assessment identified cumulative impacts relating to a reduced ability to meet conservation obligations and targets due to cumulative habitat loss and negative impacts on broad-scale ecological processes. Both impacts will have a local extent with significance ratings of low to medium.

Based on the Ecological Impact Assessment, Geelstert 1 is located within the Bushmanland Arid Grassland and Bushmanland Sandy Grassland, with the development footprint located outside of areas classified as Bushmanland Vloere. The affected vegetation types are considered to be Least Concern.

The ecological specialist has confirmed through ground-truthing that the Bushmanland Arid Grassland occurs between the deep sands of the Koa River Palaeovalley and the shallow pediments which occur around the base of the Ghaamsberg and the adjacent inselbergs. Dominant species include grasses and low woody shrubs and the abundance of listed or protected species within this habitat is low and apart from a low density of *Hoodia gordonii*, no other significant species were observed. It was indicated by the specialist that this habitat is widely available in the area and is not considered sensitive. Therefore, the proposed development would result in low ecological impacts on local fauna and flora.

A walk- through of the Geelstert 1 development area will be undertaken by an ecologist prior to the commencement of the activities to identify which species (flora and fauna) will be impacted by the placement of infrastructure. The relevant permits will be applied for. The requirement to obtain the relevant permits for flora and fauna is included in Objective 2 of the Planning and Design Management Programme of the EMPr (**Appendix M** of the final BAR).

in terms of the Northern Cape Nature Conservation Act (Act No. 9 of 2009) may not be picked, damaged, destroy or removed without relevant permits, which must be obtained from the DENC. A similar assessment is required for fauna.

2.4. One aspect that requires vigorous assessment is that there are threatened [Red Lark (Calendulauda burra); Scatlers's Lark (Spizorys sclaterii)] bird species that occur largely on the undulating red dunes. Red Larks occur in the Koa River valley which contains undulating red dunes. The red dunes are perceived to be at reduced threat from development, as is stated in the report. "This is? considered to be a sensitive habitat that is not suitable for development, firstly due to the general sensitivity of the habitat to disturbance and secondly as this is known habitat the Red Lark".

However, it is recommended that the long-term conservation and persistence of these species over its range needs to be considered in the assessment and integrated into the management of the site. This is a general species and ecosystem principle that must be considered in the assessment. More detail is required in this regard for the Final BAR.

(Figure x: Included in Appendix C7 of the final BAR)

Three site visits and surveys were undertaken by the avifauna specialist during different seasons and variable environmental conditions. The surveys coincided with a period of high avifaunal abundance when conditions were extremely favourable for resident and nomadic avifauna following good rains (June 2018), but also during two periods of rather dry and harsh conditions with correspondingly low levels of general avifaunal abundance (March 2019 and June 2020).

All Red Lark sightings (30 in total) during these surveys were made well beyond (mostly in excess of 250m) the proposed PV development footprint. The sightings were all mapped, with the intention of ensuring that a reasonable buffer area could be demarcated between the southern boundaries of the proposed PV facility and the neighbouring Koa Valley dunes, as well as all Red Lark sightings within the 'washed out' dune and plains areas.

The rationale for demarcating this buffer area is to ensure that the dune area, which is the core habitat for Red Larks in the area (Taylor et al. 2015. The 2015 Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa, Johannesburg.) is sufficiently far away from the PV development footprint to ensure minimal to zero disturbance to the preferred and core habitat of the species.

Passerines of similar size to Red Larks can usually tolerate disturbance/human presence between 100 to 250m away, often much less, Therefore, based on the Red Lark sightings, an appropriate buffer area, considered to be of a high sensitivity was recommended within which Red Lark sighting were recorded and that is at least 500m from the nearest dune area. Along most of the southern boundaries of the PV facility development area, the distance between the project boundaries and dunes, i.e. the core Red Lark habitat, is as much as 1000m. The northern limit

Desert species in the region are expected to come under pressure from climate change (Kemp et al. 2020; Kemp & McKechnie, 2019) with development pressures potentially increasing survival risk.

Appropriate buffers must be determined for sensitive areas in the surrounding vicinity to avoid impact on these habitats and particular attention should be paid to avoiding the loss of intact habitat, maximizing connectivity at a landscape

of the red soil areas in the area of 'washed out' dunes and plains was also considered in demarcating the buffer area, so as to include any potential Red Lark habitat in the buffer area where possible (to be avoided by development and disturbance).

In addition, consideration also had to be given to a suitable footprint configuration for the proposed PV facility, especially along the southern boundaries closest to the Red Lark habitat, to allow for optimal usage of the area for the solar energy facilities. In the process, potentially marginal and small patches of Red Lark habitat may be lost. But as no Red Larks were observed in or near these areas during the three surveys, it was considered reasonable to discount these areas from the buffer, and is therefore considered to be an acceptable loss based on on-ground observations made over the three site visits. Habitat management of the core area for Red Larks within the dune habitat of the Koa Valley, including the neighbouring Haramoep and Black Mountain Mine Nature Reserve, is considered of greater importance to ensure the integrity of the local Red Lark population.

The avifauna specialist has provided all required and appropriate mitigation and management measures for avifauna during the construction, operation and decommissioning phases (**Appendix E** of the final BAR). The specialist has indicated that the proposed mitigation measures will reduce the impacts to an acceptable level which will be of a medium or low significance.

The cumulative impact assessment considered impacts from an avifauna perspective. The results thereof have indicated that the proposed development will have a medium impact from an avifauna perspective (**Appendix E** and Chapter 9 of the final BAR).

Appropriate buffers have been identified depression wetlands within which no development is allowed. The developer has confirmed that these sensitive areas will be avoided and that no infrastructure will be placed within the sensitive features or the associated buffer areas.

scale. Also note that a "low sensitivity" area does not necessarily mean that an area is not important for biodiversity conservation.

Selected remaining areas of natural vegetation and habitat have been designated as either Critical Biodiversity Areas or Ecological Support Areas, being habitat required as part of the CBA conservation network. In addition to Other Natural Areas, Figure 3 shows the proposed linear development traverse large sections of the Critical Biodiversity Area 2 network, selected for various criteria. The majority of the proposed Geelstert PV1 and PV2 Laydown areas are within Ecological Support Areas. According to the Ecological Assessment: "The development area lies within an Ecological Support Area, which are generally areas identified as important buffer areas for CBAs or which may be important for ecological processes such as landscape connectivity." Based on the desktop spatial results the proposed development area has an overall moderate sensitivity, the western and south western portion of the area have the highest sensitivity ratings. All CBA's surrounding the development area should thus be considered essential for meeting targets for both ecosystem types as well as ecological connectivity. It is recommended that the ecological evaluation be completed by detailed description of flora occurring at each infrastructure position so that this can further inform a site and habitat specific EMP. Protected plant species that may be

The Ecological Impact Assessment (**Appendix D** of the final BAR) has considered the impact of Geelstert 1 on the ESA area. A reduced ability to meet conservation obligations and targets due to cumulative habitat loss, and an impact on broadscale ecological processes have been identified as the primary ecological impacts from a cumulative perspective. Transformation of intact habitat on a cumulative basis would contribute to the fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna and flora and impair their ability to respond to environmental fluctuations. Due to the presence of a number of other renewable energy and mining developments in the area, these are potential cumulative impacts associated with the development of the Geelstert 1. This impact has been assessed to be of a low to medium significance and within acceptable levels.

The requirement to undertake an ecological evaluation and provide a detailed description of flora occurring at each infrastructure position to inform the EMPr is not possible at this stage as the final infrastructure siting within the development footprint is not available at this stage. This requirement forms part of the Search and Rescue plan included as **Appendix M(D)** of the final BAR and the EMPr.

The requirement to obtain the relevant permits for flora and fauna is included in Objective 2 of the Planning and Design Management Programme of the EMPr (**Appendix M** of the final BAR).

removed can be applied for a plant rescue permit / removal permit from the DENC.

(Figure 3: Included in Appendix C7 of the final BAR)

Specialists studies have already highlighted several areas within the application area that are considered to have high conservation value. These include:

The Haramoep and Black Mountain Mine Conservation Area Important Bird Area can be found directly adjacent to the proposed Geelstert PV 1 & 2 infrastructure. Desktop studies are inherently part of specialist inputs, but must be accompanied by field-based surveys especially with impacts on NFEPA's and CBA's.). The proposed site falls within the Koa Dunes ecosystem. The densities of the Red Lark and Scatlers's Lark are the highest in this core Koa area (0.03 adult birds/ha), compared to the core Loeriesfontein area (0.014) and other areas surrounding these (0.003 – 0.01) (Colyn *et al.* 2020 in prep). The recommendations of BirdLife dated in letter 24 July 2020, as part of the comments received are supported. The maps below show the results of a habitat suitability model for Red Lark in the area (Colyn et al 2020in prep) -areas indicate a higher probability of suitable habitat.

We suggest that the output of this model should be used in combination with the results of the general avifaunal surveys to guide the location of infrastructure, including fences and roads.

(Figure 4: Included in Appendix C7 of the final BAR)

The Basic Assessment Report was informed by ecological, avifauna and freshwater impact assessments (**Appendix D**, **Appendix E** and **Appendix F** of the final BAR) undertaken by independent specialists and which included the undertaking of field surveys and ground-truthing. Therefore, the results of the studies are based on site specific observations and not only desktop studies as indicated in the comment.

An Avifauna Impact Assessment (**Appendix E** of the final BAR) has been undertaken which included three site surveys, owing to the sensitivity associated with the Red Lark habitat within the Aggeneys area. The results of the Avifauna Impact Assessment indicates that Geelstert 1 is mainly restricted to one microhabitat, the plains habitat. The plains habitat occupies the majority of the site and does not appear to support any Red Lark avifauna species, as determined during the field surveys by the specialist. As a result, the plains habitat is associated with a low sensitivity and is a widely distributed habitat.

The avifauna specialist has considered all available resources in the assessment, specifically relating to Red Lark habitat. This specifically includes results from the extensive field surveys undertaken by the specialist. The ground-truthed results specific to the area forms the basis of the information presented by the avifauna specialist and is considered accurate for use as part of the assessment.

The "Bushmanland Vloere" mapped in the study area are valuable ecological corridors and provide keystone biophysical processes.

Rocky outcrops are important habitat for several vertebrates, including lizards (which is Red Data Book listed).

The National Freshwater Ecosystem Priority Areas ("NEFPA") project has identified strategic spatial priorities for conserving South Africa's freshwater ecosystem and supporting sustainable use of water resources. According to the Biodiversity Report ." No true FEPA rivers are found in the study area". It is important to note that there are wetlands mapped as NEFPA Rivers within the proposed development site (Figure 4). Measures to prevent excessive disturbance during development within wetlands or ephemeral pans, need to be assessed. Please contextualise the assessment i.t.o. the published National Freshwater Ecosystem Priority Areas map, available at http://bgis.sanbi.org.

Water is a vulnerable resource in the Northern Cape. Demand issues such as increased water use, peak use, seasonal variability, poor water use planning, poor conservation and water losses have in the past contributed to water shortages in the Northern Cape (Mukheibir, 2007). It is recommended that the applicant obtains confirmation from the Pella Drift Water Board, whether it is capable to supply the project with

No areas of Bushmanland Vloere is present within the development footprint assessed for Geelstert 1, there are however areas located outside of the footprint and within the development area which will be avoided. Therefore, the Bushmanland Vloere will not be impacted by the proposed development.

A large proportion of the reptiles occurring in the area consist of species associated with the inselbergs and rocky hills along the Orange River. These species would not occur on the open plains characteristic of the site (as confirmed in the Ecological Impact Assessment, **Appendix D**).

A Freshwater Impact Assessment (**Appendix F** of the final BAR) has been undertaken for Geelstert 1 which included a site survey. The Freshwater Impact Assessment indicated that the most prominent drainage feature within the subquaternary catchment is an endorheic, ephemeral watercourse located approximately 8km north west of the development area.

Numerous small depression wetlands have been identified within the vicinity of Geelstert 1. Five depression wetlands are located outside of the development footprint, but are still in relatively close proximity to the facility footprint (between 30 and 75 m from the facility's boundary). These wetlands have relatively small catchments and share similar geomorphological characteristics. Such ephemeral depression wetlands make up the majority of the lentic (non-flowing) systems of the greater landscape. These depression wetlands are endorheic, i.e. isolated from other surface water ecosystems, usually with inflowing surface water but no outflow. There is generally little or no direct connection with groundwater, and these pans tend to be fed by unchanneled overland flow and interflow following rainfall events

Measures to prevent the disturbance of the sensitive freshwater features have been included in the Freshwater Impact Assessment (**Appendix F** of the final BAR) and Objective 7 of the Construction Management Programme of the EMPr (**Appendix M**). Figure 5 of **Appendix F** considers the National Freshwater Ecosystem Priority Areas map.

the required amount of water during each phase of the project.

The calculated amount of water use for cleaning of the panels should be elaborated upon, specifying e.g. the estimated amount of water used per panel, expected number of times panels will be cleaned per year etc. Will the water used for cleaning solar panels be treated, re—used or recycled? Clarity is needed on the management of waste water. This information will inform the water use license application. Clarity is needed on the chemicals used for dust suppression. The proponent is thus advised to put measures in place to control chemically treated water for dust suppression during the construction phase.

Layouts and road networks

Roads routes still require finalisation. In addition, more information is required on the type of upgrades and widening of roads that will be required to accommodate large trucks and heavy machinery. The proposed footprints are required as part of this application process.

The Pelladrift Water Board was disestablished in September 2014. Following this Sedibeng water received a directive from the Minister of Water and Sanitation, Mrs. Nomvula Mokonyane, to take over the Pelladrift Water Board as from 01 November 2014. The applicant lodged a formal request for a non-binding letter confirming water availability from Sedibeng Water on 16 September 2020. The applicant has been notified that the letter has been prepared and has been sent to the Acting Chief Executive Officer for signature. The letter is yet to be received by the applicant.

The total water consumption estimated for the total 18-month construction period is approximately 12 000 m³.

It is anticipated that the panels will be cleaned twice a year. The total water consumption estimated for the 20-year operational lifespan is 6 000 m³ per annum.

No chemicals will be used for dust suppression.

Direct access to the study area and the development area is provided by the existing Gamoep Road which intersects with the Loop 10 Road. The Loop 10 Road intersects with the N14 to the north-west of the development footprint. A main access road with a maximum width of 8m and internal access roads within the PV panel array area with a maximum width of 5m will be required.

Detailed information on the road upgrades and/or widening will only be available at detailed design phase and will be submitted to DEFF as part of the final Site Development Plan.

Air pollution

In addition to assessment of potential air pollution from the prospecting site, risk of pollution from windblown pollutants during construction needs quantification.

Rehabilitation

The timeframe for rehabilitation to occur after development have commenced should be specified. Many plants species seed banks do not remain viable within the topsoil for such a long time period or may be lost. In addition, disturbed areas and stockpiled topsoil is prone to invasion by alien plants and pioneer species.

General:

Cumulative impacts of developments (including prospecting rights, mining and renewable energy) are of high concern in the region, and is very notable around Aggeneys. There is an escalating number of both mining and energy applications and with additional infrastructure (e.g. roads, electric power lines), the area is likely to become more attractive to both activities. Cumulative impacts cannot be allowed to expand endlessly unless formal conserving areas within and surrounding developments are also considered. Biodiversity Offsets (within and outside of development areas) need to be considered now whilst there are still some limited options to meet the necessary conservation targets. These conservation efforts must be

It should be noted that the Northern Cape Department of Roads and Public Works has approved the proposed site access roads for the development of the Geelstert projects, including the Geelstert 1.

This comment is not relevant to the project as the development is not related to a prospecting right.

Rehabilitation measures for the development of Geelstert 1 is included in the Rehabilitation Management Programme (**Appendix M** of the final BAR). This includes the specified timeframe.

Cumulative impacts associated with the project has been fully assessed within Chapter 9 of the BAR. The cumulative impact assessment has indicated that the contribution of the project to the significance of cumulative impacts is predominately low to medium, depending on the impacts being considered. No cumulative impacts or risks were identified to be unacceptable with the development of Geelstert 1 within the affected landscape.

Based on the opportunity for avoidance of sensitive environmental features present within the development area through careful placement of the development footprint (which was assessed), and the fact that no fatal flaws, impacts of a high significance including unacceptable loss or impact on conservation targets (following the implementation of mitigation) are relevant, there is no need or justification for the need for a biodiversity offset. This is, therefore, not considered to be relevant to the proposed solar energy facility.

The development of Geelstert 1 within the Northern Cape Protected Area Expansion Strategy Focus Areas (NC-PAES) was considered within the Ecological

	reconciled with the provincial protected area		Impact Assessment (Appendix D of the final BAR). The specialist study indicates
	expansion strategy and focus areas, where		that the development area does not fall within the Northern Cape Protected Area
	landscape connectivity and ecosystem		Expansion Strategy Focus Area (NCPAES) and is therefore not considered significant
	functionality are pursued.		for meeting conservation targets. The development area however falls within the
			older Kamiesberg-Bushmanland-Augrabies Focus Area defined by NPAES, 2011.
			These NPAEs have been superseded by the 2016 NPAES, although the spatial
			coverages have not been made available, therefore this creates difficulty in
			determining whether the development area falls within a NPAES, although it
			appears to fall within a gap between areas identified as NPAES.
	The ecological specialist study should also be		The Ecological Impact Assessment (Section 2.1 of the Appendix D of the final BAR)
	updated to refer to the updated 2018 South		already makes reference to and considers the updated 2018 South African
	African Vegetation Map. List of species provided		Vegetation Map. Annexures 1 to 4 of the Ecological Impact Assessment includes
	at quarter degree grid scale are not meaningful		lists of fauna and flora species based on the field surveys and the relevant
	on its own. Lists of species (plants and animals)		databases.
	seen on site should be provided and where		
	surveys could not conducted this should be		
	explained and motivated.		
	The Northern Cape Nature Conservation Cape		The Applicant takes note of the requirement regarding compliance with the
	Act (Act No. 9 of 2009) and all regulations in terms		Northern Cape Nature Conservation Cape Act (Act No. 9 of 2009).
	of the Act and all other relevant legislation must		
	be adhered to. It is the applicant's responsibility		
	to adhere to any other relevant legislation.		
l l	Interim Comment	Natasha Higgitt	Following the interim comment submitted by SAHRA on Geelstert 1, dated 19
	The SAHRA Archaeology, Palaeontology and	Heritage Officer	September 2020, the Heritage Specialist (CTS Heritage) submitted correspondence
l l	Meteorites (APM) Unit cannot accept the Letter of	SAHRA	to the authority, dated 21 September 2020 (refer to Appendix C5 of the final BAR)
	Exemption for further assessment of heritage resources	and	providing proof that the study submitted for review was not only based on desktop
1	as the proposed development area has not been	Phillip Hine	resources, but also a number of recent and thorough field assessments conducted
1	previously surveyed sufficiently and the visual impact of	Manager:	by experienced heritage specialists. These field assessments were as per the
	the proposed development on the heritage resources	Archaeology,	following studies and were undertaken by highly reputable heritage specialists:
	has not been conducted	Palaeontology and	
	A field-based HIA must be conducted, inclusive of an	Meteorites Unit	» Morris (2013), SAHRIS NID 15934 – survey conducted that covered the area
	assessment of the visual impact of the development on	SAHRA	under assessment. HIA approved by SAHRA (Case 4759)
	the Gamsberg and Namiesberg massacre sites.		

SAHRA advises the applicant to extend the EA process in terms of section 19(1)b of the EIA regulations in order to comply with this comment.

Further comments will be issued upon receipt of the above.

In an Interim Comment issued on the 19/09/2020, SAHRA stated that the Letter of Exemption for further assessment of heritage resources could not be accepted as the proposed development area had not been previously surveyed sufficiently and the visual impact of the proposed development on the heritage resources has not been conducted

SAHRA furthermore requested that a field-based HIA must be conducted, inclusive of an assessment of the visual impact of the development on the Gamsberg and Namiesberg massacre sites.

A response by the heritage specialist was submitted to the Heritage Report file stating that the submitted study was not based on desktop research, requesting clarity on the comment, and sought a way forward.

Interim Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit notes that no application specific field-assessment was conducted as part of the impact to heritage resources, and therefore the submitted assessment is based on the results of other reports via a desktop search.

SAHRA notes the previous assessments in the area, and while these reports can contribute to providing context and insight into the significance of any heritage identified within the area, they do not replace the

Letter: 19-09-2020

Letter: 02-10-2020

Orton (2019) - SAHRIS NID 523680 – Survey conducted that covered the areas under assessment, including the exact grid connection corridor. HIA approved by SAHRA (Cases 13730, 13731, 13728, 13729)

The findings from these previous field assessments identified no heritage resources. In addition, the Desktop Heritage Report (Appendix H of the final BAR) also summarises likely impacts to other types of heritage including the impacts to the cultural landscape, the built environment and palaeontological impacts. Despite the above, SAHRA does not agree with the outcomes of the Heritage Report, however no reasoning (other than the information being dated even though the heritage is not expected to change in such a short timeframe) as to why further field assessment is required was provided by the authority, considering that the area has already been extensively surveyed in recent times. The independent Heritage specialist requested clarity from SAHRA regarding the need for a field assessment as, in the specialist opinion, the affected areas have been thoroughly assessed previously for impacts to heritage resources and that no new field assessment reviewing the same areas would be necessary.

In terms of the anticipated visual impacts identified by SAHRA, the specialist notes that the approved (including approval by SAHRA) Aggeneys 1 and Aggeneys 2 PV Facilities (SAHRIS Cases 13728 and 13729) are located in between the proposed development and the Gamsberg and Namiesberg massacre sites.

Following the submission of the correspondence by the specialist, dated 21 September 2020, further interim comments were submitted by SAHRA on the project, dated 02 October 2020, which included the same comments, however without clarification on the queries raised by the independent Heritage specialist. The independent specialist submitted further correspondence, dated 05 October, which reiterated their position and strengthened their argument with reference to an approval from SAHRA for the Koa South Prospecting Right application based on a desktop assessment of heritage resources, as previously identified.

application specific field-based assessment required to effectively assess the impacts of the current development on heritage resources that may occur within the impact area.

SAHRA will re-iterate the previously issued comment for consistency:

- A field-based HIA must be conducted, inclusive of an assessment of the visual impact of the development on the Gamsberg and Namiesberg massacre sites. The results of the conducted VIA as noted in the response letter may be used in this case, but they must be integrated into the HIA;
- SAHRA advises the applicant to extend the EA process in terms of section 19(1)b of the EIA regulations in order to comply with this comment;
- Further comments will be issued upon receipt of the above.

Final Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit has previously requested that a field-based survey be undertaken to effectively assess the impact of the proposed development on heritage resources that may be located within the proposed development footprint, in addition to assessment of the visual impact on the Gamsberg and Namiesberg massacre sites. This has not been completed and SAHRA is of the view that the assessment of the impact to heritage resources is incomplete.

Therefore, in terms of section 38(4)a of the NHRA, SAHRA cannot endorse this proposed development and advises the Department of Environment, Forestry and Fisheries (DEFF) to reject the EA application for the

Following this correspondence SAHRA submitted a final comment, see row below with the Letter dated 13 October 2020. Following the final comment, the requested field survey was undertaken by the Specialist, and the results that no significant resources are present in the grid connection corridor has been verified (**Appendix H1** of the final BAR which is in line with section 38(3) as required by section 38(8) of the NHRA and section 24(4)b(iii) of the NEMA). The visual specialist has responded to the SAHRA comment regarding the impact of the project on the Gamsberg and Namiesberg massacre sites to confirm that Geelstert 1 will not have a significant visual impact on either of the massacres sites due to the current landscape which has been impacted by mining and the distance between the project and the massacre sites (**Appendix I1**).

As the findings of the Heritage Report has been verified, and it is confirmed that no changes are necessary to these findings based on the lack of heritage resources in the affected area, it is confirmed that no significant changes are required to be made to the report that was made available for a 30-day review and comment period, and no significant new information is required to be added to the Basic Assessment Report or EMPr. Therefore, section 19(1)b of the EIA regulations is not relevant.

Considering the above, the final BAR therefore responds to and addresses the comments received from SAHRA with confirmation of no heritage resources being impacted by the development.

The final comment is directly submitted to the DEFF as part of the final BAR which also provides a response to the comment (refer to **Appendix H1** and **Appendix I1** of the final BAR).

Proof of the submission of the comment to DEFF will be provided to SAHRA once the acknowledgement of receipt of the final BAR is received from the Department. The final BAR, including **Appendices H1** and **I1**, will also be uploaded to the SAHRIS case in order to provide feedback on the response to the final comment raised. Updated final comment from SAHRA is expected to be provided.

Letter: 13-10-2020

proposed Geelstert 1 PV Facility, near Aggeneys, Northern Cape Province, as no HIA that complies with section 38(3) as required by section 38(8) of the NHRA and section 24(4)b(iii) of the NEMA has been completed as part of the EA application.

This comment must be forwarded directly to the competent authority and proof of the submission and receipt thereof must be provided to SAHRA.

6. Thank you for the opportunity to comment on the draft Basic Assessment Report for the above proposed developments, and for providing us with the shapefiles of the proposed development footprints.

Our primary concern with the proposed developments is the potential impacts on the Koa Dunes ecosystem. This part of the Koa dunes is without a doubt one of the core strongholds of Red Lark, Calendulauda burra (Colyn et al. 2020 in prep).

We have studied that avifaunal assessments, proposed development footprints and a habitat suitability model for the species (Colyn et al 2020 in prep; see figures below) and we can confirm that the footprint of the solar energy facilities is located on the edge this core habitat. While it is good news and we commend the applicant for their willingness to avoid this core area, we remain concerned about the risk of edge effects and Red Larks are still likely to range into the "areas of washed out" dunes and possibly even into the plains in the very dry seasons. The access road associated with the proposed powerline is likely to have a much

Samantha Ralston-Paton Birds and Renewable Energy Project Manager BirdLife South Africa

Letter: 10-09-2020

The concern raised by BirdLife South Africa (BLSA) relates to the need to avoid the Koa dunes and habitat of the Red Lark species. Following receipt of the comments, dated 10 September 2020, a virtual meeting was arranged with Ms. Samantha Ralston-Paton and held on 29 September (via Microsoft Teams) to discuss the comments in order to provide insight on the findings of the Avifauna Impact Assessment (Appendix E of the final BAR). The meeting was attended by the EAP, the independent avifauna specialist and the developer. Meeting notes are included in Appendix C8 of the final BAR. A final response to the comments were also submitted to BLSA on 09 October 2020. During the meeting it was advised by Samantha Ralston-Paton that should no further response or comment be submitted from BLSA it must be considered that the response provided on 09 October is accepted. To date, no further response or comments have been received.

The following responses is provided to the comments / suggestions provided by BLSA:

1) The current footprint of the Geelstert 1 and Geelstert 2 PV facilities is based on three site visits and surveys during different seasons and variable environmental conditions. The surveys coincided with a period of high avifaunal abundance when conditions were extremely favourable for resident and nomadic avifauna following good rains (June 2018), but also during two periods of rather dry and harsh conditions with correspondingly low levels of general avifaunal abundance (March 2019 and June 2020). A total of 49 linear transects, each measuring 1km, were traversed across the broader site(including the development footprints of the two PV facilities), with an additional 5 irregular

greater impact on this habitat than the proposed solar energy facilities.

We therefore have the following comments , suggestions:

- Consider reducing and/or shifting the footprint of the PV facilities further north to minimise edge effects and avoid Red Lark habitat as far as possible.
- 2) An alternative route for the grid connection should be assessed, that avoids the red dune habitat and follows existing roads.
- 3) It is critical that the remaining Red Lark habitat is maintained its current favourable state for the species. We note the EMPr includes objectives and activities that relate to limiting the ecological footprint and the protection of sensitive areas and suggest that these be expanded to:
 - a. Clearly define the roles and responsibilities for ensuring the protection of the remaining Red Lark habitat and indicate these areas on a map (we are concerned that if the applicant is not the landowner, the applicant may not take responsibility for the habitat outside the fenced area).
 - b. Include the state of this habitat as a performance indicator.
 - c. Ensure no "augmentation" of vegetation is permitted in this area without consulting an avifaunal specialist (augmentation is currently included in the EMPrs).
 - d. Ensure no dust suppression or other activities that could alter this habitat are permitted.

transects, totalling 19km, traversing specifically the areas of 'washed out' dunes and plains between the dunes and the proposed PV developments. Despite these efforts no Red Larks where detected in the proposed development footprints of the PV facilities.

All Red Lark sightings (30 in total) during these surveys were made well beyond (mostly in excess of 250m) the proposed PV development footprints. The sightings were all mapped, with the intention of ensuring that a reasonable buffer area could be demarcated between the southern boundaries of the proposed PV facilities and the neighbouring Koa Valley dunes, as well as all Red Lark sightings within the 'washed out' dune and plains areas.

The rationale for demarcating this buffer area is to ensure that the dune area, which is the core habitat for Red Larks in the area (Taylor et al. 2015. The 2015 Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. Birdlife South Africa) is sufficiently far away from the PV development footprints to ensure minimal to zero disturbance to the preferred and core habitat of the species.

Passerines of similar size to Red Larks can usually tolerate disturbance/human presence between 100 to 250m away, often much less. Therefore, based on the Red Lark sightings, an appropriate buffer area, considered to be of a high sensitivity was recommended within which Red Lark sighting were recorded and that is at least 500m from the nearest dune area. Along most of the southern boundaries of the two PV facility development areas, the distance between the project boundaries and dunes, i.e. the core Red Lark habitat, is as much as 1000m. The northern limit of the red soil areas in the area of 'washed out' dunes and plains was also considered in demarcating the buffer area, so as to include any potential Red Lark habitat in the buffer area where possible (to be avoided by development and disturbance).

In addition, consideration also had to be given to a suitable footprint configuration for the proposed PV facilities, especially along the southern boundaries closest to the Red Lark habitat, to allow for optimal usage of the

BirdLife South Africa supports the responsible development of renewable energy and we thank you for taking the time to consider our recommendations.

area for the solar energy facilities. In the process, potentially marginal and small patches of Red Lark habitat may be lost, as indicated by the yellow arrows in Figure 2 of the BLSA comment letter (Appendix C5 of the final BAR). But as no Red Larks were observed in or near these areas during the three surveys, it was considered reasonable to discount these areas from the buffer, and is therefore considered to be an acceptable loss based on on-ground observations made over the three site visits. Habitat management of the core area for Red Larks within the dune habitat of the Koa Valley, including the neighbouring Haramoep and Black Mountain Mine Nature Reserve, is considered of greater importance to ensure the integrity of the local Red Lark population.

- 2) The proposed Geelstert Grid Connection, to connect Geelstert 1 and Geelstert 2 to the national grid via the Aggeneis Main Transmission Substation (MTS), located within the northern area of the Koa Valley dunes, follows the existing Aggeneys-Aries 400kV power line that traverses the area which is much larger in size than the proposed 220kV power line. The grid connection route was considered feasible during the impact assessment primarily for the following reasons:
 - a) There is an existing 400kV power line and access track which provides an opportunity for consolidation of linear infrastructure within an area already impacted by a larger 400kV power line.
 - b) Two grid connection route alternatives were assessed for the authorised Aggeneys 1 and Aggeneys 2 PV facilities (DEA ref. 14/12/16/3/3/1/2023 and 14/12/16/3/3/1/2024) (located to the north of the Geelstert 1 and Geelstert 2 projects), one of which followed the existing roads in the area and the other following the grid connection corridor as proposed for the Geelstert Grid Connection. The grid connection route proposed to follow existing roads was via the Loop 10 gravel road and N14 tar road but was not considered to be acceptable for development as it would be longer resulting in a larger area to be disturbed and also less economically vi-able. There are also no existing power lines along that assessed route connection, thereby potentially exposing Ludwig's Bustards (Neotis

- ludwigii) to higher collision rates. The consolidation of linear infrastructure and disturbance within the landscape is considered to have less impact and is therefore the preferred approach considering the grid connection proposed. Based on this previous assessment and results of the grid connection for the authorised Aggeneys 1 and Aggeneys 2 PV facilities, the Geelstert Grid Connection route proposed for the Geelstert 1 and Geelstert 2 projects that traverses the dunes, is considered to be the most appropriate route from an avifauna perspective. The Geelstert Grid Connection corridor is therefore considered to be acceptable.
- The Geelstert Grid Connection traverses the northern margin of the Koa Valley dunes and not the core area, and opportunities exist to keep habitat disturbance to a minimum since there is no need to clear vegetation within the route/power line servitude due to the sparseness and low height of the vegetation. Considering that there is an existing track below the existing 400kV power line that already traverses the area and which could be used, as much as possible, for the construction of the proposed 220kV powerline, the impact of the proposed grid connection is considered to be minimal. It is anticipated that a single jeep track will have to be established below the proposed power line during construction, primarily for the stringing of the power line cable. This track will be no more than 4m wide and will be used to the absolute minimum during the construction phase. During the operation phase, the existing track under the adjacent 400kV power line will be used for infrequent inspection and maintenance. Any disturbance to Red Larks will be restricted to the limited period of the construction phase and would therefore be of a temporary nature and limited in extent. By minimising use of the single jeep track under the power line during construction, the track will be able to rehabilitate itself following the completion of construction and during operation provided stocking rates of game and livestock are kept to an acceptable level within route.
- a) It is agreed that the roles and responsibilities must be clearly defined as well as indicated on a map, to ensure that areas beyond the fenced footprint, such as the buffer area, are properly avoided and managed with respect to Red

Larks. This will include the avoidance of these areas by any disturbance, personnel associated with the Geelstert projects and any construction and operational activities. While the dunes and dune areas to the south of the PV facilities should be considered strictly no-go zones, this must also apply to the buffer area and areas adjoining the grid connection corridor. This measure has been included in the EMPrs for both Geelstert 1 and Geelstert 2 and the Geelstert Grid Connection (Refer to **Appendix M** of the final BAR for the EMPr).

The Open Space Management Plan (**Appendix M(C)** of the final BAR) will be updated following the micro-siting of the infrastructure placement and finalisation of the development footprints.

The protection of the remaining habitat of the Red Lark, outside of the fenced area, is out of the control of the developer. The landowner will be responsible for the remaining habitat, including the buffer area to the south of the proposed Geelstert projects, with respect to the planned land use of the remaining area. Should protection of the remaining habitat be required, outside of the project development footprints, this will need to be negotiated and agreed to between the landowner and the relevant conservation authority.

3) b) The buffer area, located between the PV development footprints and the dunes, lends itself well as a performance indicator. The presence of Red Larks in this buffer area could be monitored by the Environmental Officer (EO) once every six months (winter and summer), over a period of two to three mornings across a few 1km walking transects. Owing to the characteristic call of Red Larks, and their aerial display habits (especially early mornings), they could easily be detected by anyone with no prior knowledge and experience of these birds. A simple and standard measure of habitat quality (in consultation with BLSA), such as vegetation cover percentage and photographic evidence, can also be employed during walk transects. This information can provide a reasonable indication as to how well the remaining areas are being managed.

This performance indicator has been included in the EMPrs for both Geelstert 1 and Geelstert 2 and the Geelstert Grid Connection. Refer to Appendix M of the final BAR for Geelstert 1.
3) c) Habitat disturbance beyond the PV footprints will be avoided by declaring the dune habitat and the buffer area as a strictly no-go areas during construction and operation phases of the facilities. Hence there will be no need to apply any form of vegetation rehabilitation or 'augmentation"/reseeding of the areas outside of the fenced project development footprints.
If any areas should require rehabilitation after the construction phase, such as within the PV footprints, this will be done in such a manner as to avoid the need for "augmentation"/reseeding so as to ensure that no foreign plant seeds are introduced to the site. An avifauna specialist will be consulted in this regard.
This measure has been included in the EMPrs for both Geelstert 1 and Geelstert 2 and the Geelstert Grid Connection. Refer to Appendix M of the final BAR for Geelstert 1.
3. d) No dust suppression activities will be undertaken within the remaining Red Lark habitat adjoining the proposed PV footprints, as these areas are declared as no-go. Dust suppression activities within the PV footprints during construction will mainly involve the application of water to road surfaces.

2. COMMENTS RECEIVED AT THE COMMENCEMENT OF THE BASIC ASSESSMENT PROCESS

NO.	COMMENT	RAISED BY	RESPONSE
1.	While BirdLife South Africa supports the responsible	Samantha Ralston-	The comments pertaining to the development of Geelstert 1 and the potential
	development of renewable energy, we are concerned	Paton	infringement of project infrastructure and loss of the Koa Dune Ecosystem raised by
	that the proposed infrastructure lies adjacent to an	BirdLife South Africa	BirdLife South Africa are noted.
	Important Bird and Biodiversity Area and may infringe		
	on habitat Red Lark - a threatened species with a very	Letter: 24-07-2020	An Avifauna Impact Assessment (Appendix E of the BA Report) has been
	restricted range. The proposed site falls within the Koa		undertaken which included three site surveys, owing to the sensitivity associated
	Dunes ecosystem and is within the core stronghold of		with the Red Lark habitat within the Aggeneys area. The results of the Avifauna
	the species. The densities of Red Lark are the highest in		Impact assessment indicates that the dune habitat to the south and located
	this core Koa area (0.03 adult birds/ha), compared to		outside of the development footprint is considered to be of a very high avifaunal
	the core Loeriesfontein area (0.014) and other areas		sensitivity, as this supports a healthy resident population of the Vulnerable Red Lark.
	surrounding these (0.003 – 0.01) (Colyn et al 2020 in		The adjoining sandy flats habitat also supports the Red Lark, therefore much of the
	prep). We are therefore pleased to note that an		sandy flats presents a buffer between the development footprint for Geelstert 1
	avifaunal impact assessment will be undertaken.		and the dune habitat for the Red Lark. This buffer area is of a high sensitivity and is
			not considered suitable for development. The plains habitat further north of the
	The maps below show the results of a habitat suitability		sandy flats habitat does not appear to support any Red Larks based on the three
	model for Red Lark in the area (Colyn et al 2020 in prep)		field surveys undertaken within the area, and since this habitat is widely distributed,
	- warm areas indicate a higher probability of suitable		it is considered to be of a low sensitivity. The development footprint of Geelstert 1
	habitat. We suggest that the output of this model		is solely located within the low sensitivity plains habitat and does not infringe on
	should be used in combination with the results of the		habitat of the Red Lark as identified during the three field surveys.
	avifaunal surveys to guide the location of infrastructure,		
	including fences and roads.		It must be noted that the Avifauna Impact Assessment does not support the loss of
			or infringement / development into the Red Lark habitat, which is considered to not
	BirdLife South Africa will not support the loss or		be available for development.
	degradation of the red dune habitat and urge that		
	consideration be given to measures that will help		
	secure the long-term protection of this important		
	habitat as this assessment proceeds.		
2.	Interim Comment	Natasha Higgitt	A Heritage Screening Report (Appendix H) has been undertaken for Geelstert 1
		Heritage Officer	and considers the impact of the project on archaeological and palaeontological

NO.	COMMENT	RAISED BY	RESPONSE
	As the proposed development is undergoing an EA	and	resources. This report forms part of the BA Report made available for a 30-day
	Application process in terms of the National	Phillip Hine	review and comment period.
	Environmental Management Act, 107 of 1998 (NEMA),	Manager:	
	NEMA Environmental Impact Assessment (EIA)	archaeology,	The Heritage Report has been undertaken by Jenna Lavin of CTS Heritage.
	Regulations as amended, it is incumbent on the	Palaeontology and	
	developer to ensure that a Heritage Impact	Meteorites Unit	
	Assessment (HIA) is done as per section 38(3) and 38(8)	SAHRA	
	of the National Heritage Resources Act, Act 25 of 1999		
	(NHRA) as required by section 24(4)b(iii) of NEMA. This	Letter: 17-08-2020	
	must include an archaeological component,		
	palaeontological component and any other		
	applicable heritage components. The HIA must be		
	conducted as part of the EA Application in terms of		
	NEMA and the NEMA EIA Regulations.		
3.	SAHRA requests that an assessment of the impacts to		
	heritage resources that complies with section 38(3) of		
	the NHRA as required by section 38(8) of the NHRA and		
	section 24(4)b(iii) of NEMA be conducted as <u>part of the</u>		
	EA process.		
4.	The assessment must include an assessment of the		
	impact to archaeological and palaeontological		
	resources. The assessment of archaeological resources		
	must be conducted by a qualified archaeologist and		
	the report comply with the SAHRA 2007 Minimum		
	Standards: Archaeological and Palaeontological		
	Components of Impact Assessment Reports (see		
	<u>www.asapa.co.za</u> or <u>www.aphp.org.za</u> for a list of		
	qualified archaeologists).		
5.	The proposed development is located within an area		A Chance Find Procedure has been included as part of the Environmental
	of low Palaeontological Sensitivity as per the SAHRIS		Management Programme included as Appendix M of the BA Report.
	PalaeoSensitivity map. As such, a Chance Fossil Finds		
	Procedure must be developed as part of the EMPr for		

NO.	COMMENT	RAISED BY	RESPONSE
	the development (see		
	https://www.palaeosa.org/heritage-practitioners.html		
	for a list of qualified palaeontologists).		
6.	Any other heritage resources as defined in section 3 of		The Heritage Screening Report (Appendix H) considers all resources of heritage
	the NHRA that may be impacted, such as built		significance located within the Geelstert 1 development area and development
	structures over 60 years old, sites of cultural significance		footprint.
	associated with oral histories, burial grounds and		
	graves, graves of victims of conflict, and cultural		
	landscapes or viewscapes must also be assessed.		
7.	Further comments will be issued upon receipt of the		It is noted that further comments will be submitted on the BA Report.
	NEMA EA documents inclusive of appendices.		
8.	Please find attached Eskom general requirements for	John Geeringh	The Eskom general requirements for developments at or near Eskom servitudes and
	developments at or near Eskom servitudes and	Senior Consultant	infrastructure document submitted to Savannah Environmental is included in
	infrastructure. Please send me KMZ files of the affected	Environmental	Appendix C5.
	properties, proposed layouts and proposed grid	Management	
	connections.	Land and Rights	The requested .KMZ file for Geelstert 1 was e-mailed on 19 August 2020 (refer to
		Eskom Transmission	Appendix C7).
	Renewable Energy Generation Plant Setbacks to	Division	
	Eskom Infrastructure document was submitted and is		
	included in Appendix C5. The requirements listed	E-mail: 19-08-2020	
	below forms part of the document.		
	» Eskom's rights and services must be acknowledged		The requirements for development at or near Eskom infrastructure servitudes are
	and respected at all times.		noted. These requirements have been submitted to the developer for their
	» Eskom shall at all times retain unobstructed access		attention and consideration for the development of Geelstert 1.
	to and egress from its servitudes.		
	» Eskom shall at all times retain unobstructed access		
	to and egress from its servitudes.		
	» Eskom's consent does not relieve the developer		
	from obtaining the necessary statutory, land owner		
	or municipal approvals.		

RESPONSE	RAISED BY	OMMENT	NO. CC
		Any cost incurred by Eskom as a result of non-	»
		compliance to any relevant environmental	
		legislation will be charged to the developer.	
		If Eskom has to incur any expenditure in order to	>
		comply with statutory clearances or other	
		regulations as a result of the developer's activities	
		or because of the presence of his equipment or	
		installation within the servitude restriction area, the	
		developer shall pay such costs to Eskom on	
		demand.	
		The use of explosives of any type within 500 metres	»
		of Eskom's services shall only occur with Eskom's	
		previous written permission. If such permission is	
		granted the developer must give at least fourteen	
		working days prior notice of the commencement	
		of blasting. This allows time for arrangements to be	
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		made for supervision and/or precautionary instructions to be issued in terms of the blasting process. It is advisable to make application separately in this regard. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's satisfaction. Eskom shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the servitude area by the developer, his/her agent, contractors, employees, successors in title, and assignees. The developer	*

NO.	COMMENT	RAISED BY	RESPONSE
	indemnifies Eskom against loss, claims or damages		
	including claims pertaining to consequential		
	damages by third parties and whether as a result		
	of damage to or interruption of or interference with		
	Eskom's services or apparatus or otherwise. Eskom		
	will not be held responsible for damage to the		
	developer's equipment.		
	» No mechanical equipment, including mechanical		
	excavators or high lifting machinery, shall be used		
	in the vicinity of Eskom's apparatus and/or services,		
	without prior written permission having been		
	granted by Eskom. If such permission is granted the		
	developer must give at least seven working days'		
	notice prior to the commencement of work. This		
	allows time for arrangements to be made for		
	supervision and/or precautionary instructions to be		
	issued by the relevant Eskom Manager		
	» Note: Where and electrical outage is required, at		
	least fourteen work days are required to arrange it.		
	Second		
	accepted as having prior right at all times and shall		
	not be obstructed or interfered with.		
	» Under no circumstances shall rubble, earth or other		
	material be dumped within the servitude restriction		
	area. The developer shall maintain the area		
	concerned to Eskom's satisfaction. The developer		
	shall be liable to Eskom for the cost of any remedial		
	action which has to be carried out by Eskom.		
	» The clearances between Eskom's live electrical		
	equipment and the proposed construction work		
	shall be observed as stipulated by Regulation 15 of		
	the Electrical Machinery Regulations of the		

NO.	COMMENT	RAISED BY	RESPONSE
	Occupational Health and Safety Act, 1993 (Act 85		
	of 1993).		
	» Equipment shall be regarded electrically live and		
	therefore dangerous at all times.		
	» In spite of the restrictions stipulated by Regulation		
	15 of the Electrical Machinery Regulations of the		
	Occupational Health and Safety Act, 1993 (Act 85		
	of 1993), as an additional safety precaution, Eskom		
	will not approve the erection of houses, or		
	structures occupied or frequented by human		
	beings, under the power lines or within the		
	servitude restriction area.		
	Session is a stipulate any additional requirements		
	to highlight any possible exposure to Customers or		
	Public to coming into contact or be exposed to		
	any dangers of Eskom plant.		
	» It is required of the developer to familiarise himself		
	with all safety hazards related to Electrical plant.		
	» Any third party servitudes encroaching on Eskom		
	servitudes shall be registered against Eskom's title		
	deed at the developer's own cost. If such a		
	servitude is brought into being, its existence should		
	be endorsed on the Eskom servitude deed		
	concerned, while the third party's servitude deed		
	must also include the rights of the affected Eskom		
0	servitude.	Natalia Cablabush	During the telephone discussion of 09 July 2000, the 18 AD was informed that are seen
9.	As per our earlier discussion, can you kindly advise the	Natalie Schlebush	During the telephone discussion of 08 July 2020, the I&AP was informed that as soon as the Background Information Document (BID) was available for distribution, it
	information required to register on the project database as well as obtaining further information on	Project Coordinator, Turnkey Systems,	would be forwarded to her as a registered I&AP.
	the projects.	International	would be forwarded to her as a registered t&Ar.
	пів ріојвсіз.	Operations	The BID was e-mailed on 16 July 2020 (refer to Appendix C6 for e-mail trail) and the
		Canadian Solar	I&AP has been registered on the project database (Appendix C2 of the BA Report).
		Caridalari solai	Tian has been registered on the project adiabase (Appendix C2 of the BA Report).

NO.	COMMENT	RAISED BY	RESPONSE
		E-mail: 08-07-2020 & 15-07-2020	
10.	Akkommodasie beskikbaar naby geleë plaaspopstal wat opgeknap kan word vir meer senior personeel. Ook akkomodasie in Pofadder beskikbaar. (Submitted in terms of Regulation 43(1)) Translation Accommodation situated near homestead available which needs to be renovated for senior personnel. Accommodation is also available in Pofadder.	Gerhard Visser Landowner Registration & Comment Form: 19-07-2020	It is noted that the I&AP has accommodation available for use by the development team during the development phases of Geelstert 1. The contact details of the I&AP and the services provided have been submitted to the developer.
11.	Verhoogde kriminaliteit in omgewing a.g.v. toestroming van mense is 'n pertinente bekommernis. Sekuriteit op hoof paaie 24/7 is 'n vereiste. Translation Crime in the area will increase due to the influx of people is a great concern. Security on all main roads is a requirement 24/7.		The comment raised pertaining a potential rise in crime due to an influx of jobseekers is noted. The Social Impact Assessment (Appendix G of the BA Report) undertaken for the Geelstert 1 identified the influx of jobseekers and change in population as a potential social impact associated with the construction phase. The impact was assessed as being of a low significance with the implementation of the recommended mitigation measures.
12.	Please register me as an I&AP for the DBAR process for the proposed Geelstert PV application. Also, please note the others copied on this email who may also wish to be registered, or who require a dedicated comment opportunity.	Mark Botha Independent Environmental Services Professional E-mail: 12-08-2020	The I&AP was registered on the project database (refer to Appendix C2). Any other party who has an interest in the project was invited to register their individual interest with the PIP team, and request to be added to the project database.
13.	Please could you send through a detailed layout of the application.		The layout map of Geelstert 1 was distributed to the I&AP via email on 18 August 2020.
14.	I note with interest that there are two prior applications over the relevant farm portions which have already been approved and wonder how this new application resonates with that.		The two authorised projects on the same property are known as the Aggeneys 1 and Aggeneys 2 Solar PV facilities. These are located directly north of the proposed Geelstert 1 solar PV facility, and north of the Aggeneis-Aries 400kV line.

NO.	COMMENT	RAISED BY	RESPONSE
15.	Please note further, that portions of the farms Bloemhoek and Aggeneys have either been formally set aside as biodiversity offsets by Black Mountain Mine for the Gamsberg project, or are managed as nature reserves contributing to biodiversity targets in this landscape.		The portions of the farms Bloemhoek and Aggeneys have not been formally set aside as biodiversity offsets by Black Mountain Mine for the Gamsberg project, nor are managed as nature reserves contributing to biodiversity targets in this landscape. Where further details regarding the offset areas can be provided, this input would form part of the assessment reporting.
16.	Please advise your client that if any of the sensitive biodiversity features are to be impacted, that a significant biodiversity offset is likely to be required, which has bearing on project location, layout and viability.		Simon Todd, the ecologist who has assessed the Geelstert 1 project, advised that he is aware of the offset requirements associated the EA for the Gamsberg Mine and that this offset includes several properties, the nearest of which is the farm Achab which includes the large ridge east of the Gamsberg itself, northeast of the Bloemhoek property. The PV projects are confined to the Bloemhoek property. The farm Aggeneys 056 is traversed by the Geelstert Grid Connection grid corridor, and while owned by the mine, the ecologist has confirmed that this is not an offset property. It is acknowledged that the deep sands of the Koa River valley are important for the Red Lark from a conservation perspective, and have been flagged as such in the Ecological Impact Assessment (Appendix D of the BA Report) relevant to Geelstert 1. The PV project avoids infringement on sensitive areas, habitats and features within the area and have been reported to be located predominantly within areas of low sensitivity. There are features and areas of a high sensitivity present within the grid connection corridor of the Geelstert Grid Connection which need to be avoided, however these features and the associated buffers will be spanned by the power line infrastructure. As sensitive features are avoided by the planned PV facilities, the need for an offset was not identified to be required.
17.	I urge your client to engage frankly with the various regulators and landowners in this region prior to committing further to this process, and also to undertake a grid connection and capacity study upfront to determine whether additional connections can be accommodated (given the large number of existing approved projects).		Technical considerations such as the grid connection and capacity study form part of the project feasibility work undertaken by the developer. As not all authorised projects have been awarded preferred bidder status, the connection to the grid is offered to the next project which is awarded preferred bidder.

NO.	COMMENT	RAISED BY	RESPONSE
18.	Please send me the layouts of Geelstert 1 & 2 (as well as Aggeneys 1 & 2 and Bloemhoek PV projects if you have them). Simon does not have all the relevant offset	E-mail: 18-08-2020	The layout maps of the Geelstert 1, Geelstert 2 and the Geelstert Grid Connection projects were sent as requested on 18 August 2020 via email. The locality map for the three Geelstert projects, putting their locations within the Aggeneys area into perspective, was also submitted.
	components to hand - in addition to the offset properties were a range of set asides and commitments. These include large portions of Aggeneys and Bloemhoek		The cumulative map (also attached to above-mentioned e-mail) provided an indication of the locations of the Aggeneys PV projects within the Bloemhoek property. It is important to note that the 'Bloemhoek PV projects' referred to by the I&AP no longer hold valid environmental authorisations (email trail included in Appendix C6).
	I would need to interrogate the layouts to ensure that they do not conflict. Please also copy Koos and Pieter from BMM and the DENC officials		
19.	I can confirm that there is no conflict with the BMM offset and set aside areas.		Feedback confirming that the project development area does not conflict with the BMM offset areas is acknowledged.
	Would be useful to keep the two DENC officials copied on all future applications in Namaqua district that Savannah may be involved with.		The PIP team confirm that the Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (previously NC DENC) is the commenting authority for the project and accordingly is automatically registered on the project database.
20.	I have also had a look and agree that they fall outside the offset geographical areas. The regional context of the development will of course still require review. (E-mail addressed to Mr Mark Botha in comment number 19 above)	Conrad Geldenhuys Production Scientist Grade B: Botanist Research and Development Support Section NC DENC	It is acknowledged that the NC DENC is in agreement with the conclusion that the project falls outside of the offset areas related to the Black Mountain Mine and the Gamsberg Mine.
		E-mail: 19-08-2020	
21.	Please register me.	Dieudonne Ngneutedem I&AP: Upington	Registration as I&AP on project database was confirmed on 18 August 2020 per email.

NO.	COMMENT	RAISED BY	RESPONSE
	I got code 10 drivers license and pdp. And am just		
	waiting to passed out for my code 14 license. Am	E-mail: 17-08-2020	
	looking for anything even if it's a general worker post.		