



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia, · PRETORIA

DFFE Reference: 14/12/16/3/3/1/2740
Enquiries: Ms Olivia Letlalo
Telephone: 012 399 8815 E-mail: Oletlalo@dffe.gov.za

Susanna Nel and Annelize Erasmus
Landscape Dynamics Environmental Consultants (Pty) Ltd
3 Palomino Avenue
SOMERSET WEST
7130

Cellphone Number : 082 566 4530/ 082 888 4060
Email Address : info@landscapedynamics.co.za

PER MAIL / E-MAIL

Dear Susanna and Annelize

COMMENTS ON THE DRAFT BASIC ASSESSMENT REPORT FOR THE KLEINFONTEIN SOLAR PHOTOVOLTAIC 1 (PV) ON PORTION 1 OF THE FARM KLEINFONTEIN NO 369, VILJOENSKROON, FREE STATE PROVINCE

The draft Basic Assessment Report (BAR) dated March 2023 and received by this Competent Authority (CA) on 03 April 2023, refers.

This letter serves to inform you that the following information must be included to the final BAR:

Project description/ components

- On page vii of the draft BAR, it is mentioned that *"the onsite 132kV switching station and a 132kV power line which will be handed over to Eskom after construction will be dealt with according to the above-mentioned stipulations in a separate application. The substation however forms part of the project components of the Kleinfontein PV facility and will be dealt with under this application."* Please clarify if the substation and the onsite switching station both refer to the *"Onsite 132 kV Independent Power Producer (IPP) Substation"* that forms part of the project component on page ii of the draft BAR.
- In addition to the above, there is contradiction between the project components on page ii of the draft BAR, and the statement on page iv of the draft BAR which states *"Components of a separate application for Environmental Authorisation as it would be handed over to Eskom (to be developed by the IPP under a self-build agreement with Eskom): the onsite 132kV Eskom switching station, and a 132kV power line connecting the Kleinfontein Solar PV1 facility to the Mercury MTS"*. Please ensure that the information submitted with the final BAR is clear on the project components for this application.

Application form and Listed Activities

- It has been noted that the exclusions on the triggered listed activities applied for, are not included. Therefore, you are advised to include in the amended application form as well as final BAR all the relevant exclusions related to the listed activities applied for. For instance, activity 11 of Listing Notice (LN) 1 has been applied for, however the exclusions have not been quoted in the application form.

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- It has been noted that the word “**could and should**” has been used in the description of activity 15 of LN 1 and 10 of LN 3. Please refrain from using such word, since it creates an uncertainty regarding the applicability of the listed activity applied for.
- For activity 15 of LN 1 it is indicated that “*the total property is 354ha in extent of which the renewable infrastructure will affect approximately 290ha*”. As per the LN 1 of the EIA Regulations, 2014 this activity is triggered if there will be clearance of an area of 1ha or more but less than 20ha of indigenous vegetation. You are required to clarify the applicability of this activity and it is also unclear as to whether indigenous vegetation will be cleared or not. Alternatively, remove this listed activity in the amended application form and final BAR, if not triggered.
- For activity 19 of LN 1, it is noted that the description provided is that “*a farm dam (confirmed by the ecologist as having a low sensitivity) will be filled up to expand the developable area of the PV farm*”. You must indicate why the activity is triggered by specifying the amount of material to be excavated or infilled.
- According to the LN 3 activities 4, 10, 14 and 18 applied for, the proposed development is located 1.2km from the Protected Area National Park and Nature Reserve (Mispah Game Farm). You are required to provide proof of approval in terms of Section 50 of NEM: PAA from the relevant management authority of such protected area.
- For activities 24 and 28 of LN1, main activities (i) and (ii) have been included in the application form and DBAR. Please ensure that the revised application form and final BAR indicate only the applicable main activity.
- 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. In addition, the onus is on the applicant and the Environmental Assessment Practitioner (EAP) to ensure that all the applicable listed activities are included in the application and the final BAR. Failure to do so may result in unnecessary delays in the processing of the application.
- If the activities applied for in the application form differ from those mentioned in the final BAR, an amended application form must be submitted for final review and decision making. Please note that the Department’s has been amended and can be downloaded from the following link <https://www.environment.gov.za/documents/forms>.

Alternatives

- It has been noted on page iii of the draft BAR that the Solid-State Batteries (SSB) is the preferred Battery Energy Storage System (BESS) that will be constructed on approximately 4.5ha. However, it is unclear if the BESS will come to site preassembled or not. Please provide clarity with regard to the above concern in the final BAR.
- Please note that Appendix 1(3)(1)(h)(x) of the Environmental Impact Assessment (EIA) Regulations, 2014, as amended, requires that “if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such” must be included in the BAR. You are therefore required to provide a motivation should other alternative sites, routes, layouts, and technologies not be considered.
- A description of the process followed to reach the preferred alternative within the site as per Appendix 1(3)(1)(h)(i) of the EIA Regulations (2014), as amended, must be incorporated into the final BAR.

Layout & Sensitivity Maps

- The CA acknowledge the inclusion of Environmental Sensitivity map in Appendix B of the draft BAR. However, you are advised to submit a layout map that indicates the following (but not limited to the below). Please ensure the findings of the specialists advise what needs to be incorporated in the development layout.
 - The the PV development area.
 - Position of all infrastructure e.g., BESS, on-site substation and their coordinates.
 - Permanent laydown area footprint.
 - All supporting onsite infrastructure e.g., roads (existing and proposed).
 - Connection routes (including pylon positions) to the distribution/transmission network.

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- All existing infrastructure on the site.
- The location of sensitive environmental features on site e.g., CBAs, ESAs, heritage sites, wetlands, drainage lines etc. that will be affected.
- Buffer areas of the above sensitive areas; and
- All “no-go” areas.
- Please ensure that the above map has a clear legend that communicate with details of the map.
- The above map must be overlain with a sensitivity map and a cumulative map which shows the proposed Solar PV development as well as neighbouring renewable energy developments.
- Images and Google maps will not be accepted for decision-making purposes.

Specialist Assessments

- According to the screening report, the Aquatic Biodiversity theme, Landscape theme and Terrestrial Biodiversity theme are rated as **very high** sensitivity. Agricultural theme, and Paleontology theme are rated as **high** sensitivity. However, Animal Species theme, and Plant Species theme have **medium** sensitivity, whereas Archaeological and Cultural Heritage theme, Avian theme, Civil Aviation theme, Defence theme, and RFI theme, all have **low** sensitivity. Therefore, you are advised to submit a site verification report and motivation for the exclusions of any specialist studies identified by the screening tool.
- It is brought to your attention that Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation, which were published in Government Notice No. 320 of 20 March 2020 (i.e., “the Protocols”), and in Government Notice No. 1150 of 30 October 2020, have come into effect. Please note that specialist assessments must be conducted in accordance with these protocols unless proof is provided to demonstrate that the specialist assessments were commissioned prior to 50 days after the promulgation of GN 320 and after promulgation of GN1150 (30 October 2020).
- In addition to the above, you are hereby drawn to the following:
 - The Specialist Declaration of interest forms must be attached for all specialist studies to be conducted in the final BAR. The forms are available on Department’s website (please use the Department’s template).
 - Specialist studies to be conducted must provide a detailed description of their methodology, as well as indicate the locations and descriptions of proposed rehabilitation, and all other proposed structures that they have assessed and are recommending for authorisations.
 - The specialist studies must also provide a detailed description of all limitations to their studies. All specialist studies must be conducted in the right season and providing that as a limitation, will not be accepted.
 - Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defensible reasons; and where necessary, include further expertise advice.
 - Please note further that the protocols require certain specialists’ to be registered with SACNASP. Refer to the relevant protocols in this regard.
 - Please include a table in the final BAR summarising the specialist studies required by the Screening Tool, a column indicating whether these studies will be conducted or not, and motivation if any study will not be undertaken. Please note that if any of the specialists’ studies and requirements recommended in the Department’s Screening Tool are not commissioned, motivation for such must be provided in the report, as per the requirements of the Protocols.
 - Please also ensure that the final BAR includes the Site Verification Report as required by the relevant environmental themes and assessments.
 - Should it be determined that there is a need for additional specialist studies to be undertaken based on the outcome of public participation, these must be commissioned and be included in the final BAR reports for public comment.

Participation Process

- Please ensure that comments from all relevant stakeholders are submitted to the Department with the final BAR. This includes but not limited to the Department of Forestry, Fisheries, and the Environment (DFFE): Protected Areas Planning and Management Effectiveness Directorate, Biodiversity Planning and Conservation (BCAdmin@environment.gov.za); Free State Department of Economic Development, Tourism and Environmental Affairs, South African Heritage Resources Agency (SAHRA), South African Civil Aviation Authority, Endangered Wildlife Trust, Birdlife South Africa, Department of Human Settlement, Water and Sanitation, South African National Defence Force, Local interest groups, for example: Councillors and Rate Payers associations; Surrounding landowners, Farmer Organisations, Environmental Groups and NGOs; and Grassroots communities and structures as well as the affected district and local municipalities.
- Proof of correspondence with the various stakeholders must be included in the Final BAR. Should you be unable to obtain comments, proof must be submitted to the Department of the attempts that were made to obtain comments.
- The Public Participation Process must be conducted in terms of Regulations 39, 40, 41, 42, 43 & 44 of the EIA Regulations 2014, as amended and the approved Public Participation Plan.
- The comments and response trail report (C&R) must be submitted with the final BAR. The C&R report must incorporate all comments for this development. The C&R report must be a separate document from the main report and the format must be in the table format as indicated in Annexure 1 of this comments letter.
- Please ensure that all issues raised, and comments received during the circulation of the BAR from registered I&APs and organs of state which have jurisdiction (including this Department's comments) in respect of the proposed activity are adequately addressed. Comments made by I&APs must be comprehensively captured (copy verbatim if required) and responded to clearly and fully. Please note that a response such as "Noted" is not regarded as an adequate response to I&AP's comments.

Cumulative Impact

- It has been noted on page 2 of the draft BAR that, the Kleinfontein Solar PV1 is part of the Mercury Solar PV Cluster EÅ application submitted to the CA within the geographic area of investigation. Further to this, it is indicated on page 94 of the draft BAR that, "*there are currently three approved renewable energy projects within a 30km radius around the proposed Mercury Solar PV Cluster*", therefore, the cumulative impact assessment for all identified and assessed impacts must be refined to indicate the following:
 - Assess the cumulative impacts of the proposed (not yet authorised), authorised (not yet constructed) and existing solar energy facilities.
 - Detailed process flow and proof must be provided, to indicate how the specialist's recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.
 - The cumulative impacts significance rating must also inform the need and desirability of the proposed development.
 - A cumulative impact environmental statement on whether the proposed development must proceed.

Environmental Management Programme (EMPr)

- A 132kV IPP substation is being mentioned as part of the infrastructure to form part of the proposed development in activity 11 of Listing Notice 1. Therefore, ensure that the generic EMPr that complies with the GN 435 of March 2022 is submitted in the final report.
- The EMPr that complies with Appendix 4 of the EIA Regulations, as amended, for the facility must be submitted with the final report and must include all recommendations and mitigation measures recorded in the BAR and the specialist studies conducted.
- The EMPr must distinguish between impact management actions and impact management outcomes as per Appendix 4(1)(1)(d) & (f) of the EIA Regulations 2014 (as amended).
- The EMPr must not contain any ambiguity. Where applicable, statements containing the word "should" or "may" are to be amended to "must".

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 significant new information has been added to the basic assessment report or EMPr or, where applicable, a closure plan, which changes or information was not contained in the reports or plans consulted on during the initial public participation process contemplated in sub-regulation (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.

Yours sincerely



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Signed by: Ms Olivia Letlalo
Designation: Deputy Director: Priority Infrastructure Projects
Date: 05/05/2023

cc:	Mr Warren Morse	Kleinfontein Solar PV1 (Pty) Ltd	Tel: 021 685 3240 Cell: 083 760 9586	Email: warren@mulilo.com
	Ms Grace Mkhosana	Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA)	Tel: 051 400 4812/7 Cell: 082 789 4611	Email: mkhosana@destea.gov.za
	MManager Mncedisi Simon Mqwathi care of Seithati Monyaki (Acting).	Moqhaka Local Municipality (LM)	Tel: 056 216 9125 / 9377 / 9378	Email: mms@moqhaka.gov.za

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Annexure 1

1. Format for Comments and Response Report:

Date of comment, format of comment name of organisation/I&AP,	Comment	Response from EAP/Applicant/Specialist
27/03/2021 Email Department of Forestry, Fisheries and the Environment: National Infrastructure Projects (Joe Soap)	Please record C&R trail report in this format Please update the contact details of the provincial environmental authority	EAP: (Noted) The C&R trail report has been updated into the desired format, see Appendix K EAP: Details of provincial authority have been updated, see page 16 of the Application form

Landscape Dynamics

From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Friday, 12 May 2023 1:35 PM
To: 'Kamogelo Mathetja'
Cc: 'Mashudu Mudau'; 'Portia Makitla'
Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Dear Mashudu and Portia

Our communication below refers. Kindly note that we have not yet received comment on the three applications referred to in the subject line.

The date for final comment was 10 May, so we just want to know if we are still going to receive any comment from your side for inclusion in the Final BAR which will be submitted on Tuesday 16 May 2022.

Kind regards

Annelize Erasmus
Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za
Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za
Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: Kamogelo Mathetja [mailto:KMathetja@dffe.gov.za]
Sent: Thursday, 13 April 2023 3:49 PM
To: info@landscapedynamics.co.za
Cc: Mashudu Mudau; Portia Makitla
Subject: Re: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Dear Sir/Madam

DFFE Directorate: Biodiversity Conservation hereby acknowledge receipt of the invitation to review and comment on the project mentioned on the subject line. Kindly note that the project has been allocated to Mrs P Makitla and Ms M Mudau (Both copied on this email). In addition, kindly share the shapefiles of the development footprints/application site with the Case Officers.

Landscape Dynamics

From: Kamogelo Mathetja <KMathetja@dffe.gov.za>
Sent: Thursday, 13 April 2023 3:49 PM
To: info@landscapedynamics.co.za
Cc: Mashudu Mudau; Portia Makitla
Subject: Re: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

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Please note: All Public Participation Process documents related to Biodiversity EIA review and any other Biodiversity EIA queries must be submitted to the Directorate: Biodiversity Conservation at Email: BCAdmin@environment.gov.za for attention of Mr Seoka Lekota

Regards,
Kamogelo

From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Tuesday, April 4, 2023 9:57 PM
To: BC Admin <bcadmin@dffe.gov.za>; Rofhiwa Magodi <RMagodi@dffe.gov.za>; mphapangm@destea.gov.za; mpmphapang@gmail.com; ntilit@dwa.gov.za; lenongP@dws.gov.za; letloenyane@dws.gov.za; mahlael@dws.gov.za; kumaloz@dws.gov.za; maseloanek@dws.gov.za; musekenen2@dws.gov.za; baloitg@dws.gov.za; LydiaB@daff.gov.za; info@dalrrd.gov.za; DLUSM@DAFF.gov.za; petuniam@daff.gov.za; mokonet@dard.gov.za; Ramklowni@nra.co.za; mabason@nra.co.za; fsroadplanning@gmail.com; Kagisho.mokae@energy.gov.za; Kagisho.Mokae@dmre.gov.za; Wayleave@eskom.co.za; BokweTT@eskom.co.za; MuswubMD@eskom.co.za; john.geeringh@eskom.co.za; GeerinJH@eskom.co.za; khanyeN@eskom.co.za; vSchalkG@eskom.co.za
Cc: Susanna Nel <susanna@landscapedynamics.co.za>; Megan Grobler <megan@landscapedynamics.co.za>; Lloyd Barnes <lloyd@mulilo.com>
Subject: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

For attention:

Government Departments and Institutions (1 of 2)

National Department of Environmental Affairs, Fisheries and Forestry: The Directorate: Biodiversity Conservation, for attention of Mr Seoka Lekota

DFFE : Directorate: Biodiversity Conservation: Protected Areas

Department of Economic , Small Business Development, Tourism and Environmental Affairs (DESTEA), Head of Communications Environmental Impact Assessment; Mr Mojalefa Mphapang

Department of Water and Sanitation, Free State: Provincial Head, Dr Tseliso Ntili, Care of the Executive Senior Secretary to the Provincial Head, Mr Pule Lenong

Department of Water and Sanitation, Free State Provincial Office; care of the Water Use Licensing Unit (Middle Vaal Catchment), the Director- General Ms T Baloi



Enquiries: Sityhilelo Ngcatsha
Tel: 0212028663
Email: sngcatsha@sahra.org.za
CaseID: 21031

Date: Thursday May 04, 2023
Page No: 1

Final Comment

In terms of Section 38(4), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Landscape Dynamics Environmental Consultants

Landscape Dynamics Environmental Consultants (Pty) Ltd was appointed by Mulilo Renewable Project Developments (Pty) Ltd to obtain Environmental Authorisation for the Mercury Cluster Solar PV Project and associated gridline infrastructure. The project will involve the development of five Photo Voltaic (PV) solar facilities on privately owned land in the vicinity of Viljoenskroon in the Free State Province, together with associated grid connections (power lines) to connect the solar farms to the existing Mercury Transmission Substation (MTS).

Kleinfontein Solar PV1 (Pty) Ltd appointed Landscape Dynamics Environmental Consultants (Pty) Ltd to undertake the Environmental Authorisation (EA) Application for the construction of the 120MW Kleinfontein Solar PV1 project on the Portion 1 of the Farm Kleinfontein No 369, near Viljoenskroon in the Mqohaka Local Municipality, Free State Province.

The Draft Basic Assessment Report has been submitted in terms of the National Environmental Management Act (Act No. 107 of 1998) and the NEMA EIA Regulations, 2014 (as amended). The extent of the development area is approximately 290 hectares (ha).

CTS Heritage was appointed to provide heritage specialist input as required by section 24(4)b(iii) of NEMA and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).

Lavin, J. 2022. Heritage Screener: Proposed development of the Mercury Solar PV Cluster near Orkney in the Free State

Archaeological sites spanning the Earlier, Middle and Later Stone Age have been found in the region despite the extensive agricultural transformation of the area. The development region is underlain by the underlain by Quaternary deposits and the Malmani subgroup along with the Allanridge Formation. It is therefore recommended that an archaeological and palaeontological assessment of the proposed development area be undertaken.

Lavin, J. 2022. Heritage Impact Assessment In Terms Of Section 38(8) Of The NHRA For The Proposed



an agency of the
Department of Arts and Culture

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Mercury Solar PV Cluster (North and South) near Orkney in the Free State

Isolated individual artefacts along with a site of a small concentration of artefacts were documented within the development footprint along with one isolated historic burial and a historic burial ground. It is extremely unlikely that fossils would be preserved in the overlying deep soils and sands of the Quaternary. In the northernmost section (Kleinfontein PV1 only north of the grid connection), there is a very small chance that fossils may occur in the shales below ground of the early Permian Vryheid Formation. The impact on the palaeontological heritage would be low, therefore, as far as the palaeontological is concerned, the projects should be authorised.

Lavin, J. 2022. Archaeological Specialist Study In Terms Of Section 38(8) Of The NHRA For A Proposed The Mercury Solar PV Cluster And Associated Grid Connection Infrastructure Near Orkney In The Free State

Six heritage resources were identified with the development footprint and three of those are of scientific value. Sites VK1 – VK3 are out of context individual artefacts and Site CVK100 along with CVK 101 are historic burial sites. Sites VK4 is a LSA site that consists of surface finds in addition to a possibility of insitu deposits in a dateable context. All of these are located outside of the Vlakfontein Solar PV1 area and will not be affected by the development.

Recommendations

- A no development buffer of 20m must be implemented around site VK4.
- A no-development buffer of 40m is recommended around the isolated burial (CVK100) and a no-development buffer of 100m is recommended around the burial ground (CVK101) to ensure that no impact takes place and that the sense of place associated with the burials is retained.
- Ongoing community access to these burials, as well as their conservation into the future, must be ensured. This can be managed through the development of a Heritage Management Plan for the burials to be implemented for the duration of the project.
- A pre-construction archaeological walkdown is recommended to identify any unmarked or hidden burials or significant archaeological resources within the development area.
- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African

Proposed development of the Mercury Solar PV Cluster for Kleinfontein Solar PV1 near Orkney

Our Ref: 21031



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Email: sngcatsha@sahra.org.za
CaseID: 21031

Date: Thursday May 04, 2023
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Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.

Bamford, M. 2022. Desktop Study: Palaeontological Impact Assessment The Proposed Mercury PV Cluster And Grid Connection, Viljoenskroon, Free State Province

The proposed development area is underlain by Quaternary sands and alluvium the northernmost part of Zaaiplaats PV 1 and Biesiesfontein PV 1 are on very highly sensitive rocks of the Vryheid Formation, however the study area has been disturbed by agricultural activities. A Fossil Chance Find Protocol should be added to the EMPr.

Final Comment

The following comments are made as a requirement in terms of section 3(4) of the NEMA Regulations and section 38(8) of the NHRA in the format provided in section 38(4) of the NHRA and must be included in the Final BAR Report and EMPr:

- 38(4)a – The SAHRA Development Application Unit (DAU) and the Burial Grounds and Graves (BGG) Unit has no objections to the proposed development;
- 38(4)b – The recommendations of the specialists are supported and must be adhered to. Further conditions are recommended for the development;
- A Heritage Management Plan must be developed for the maintenance of the identified burial sites. In the event that Grave relocation is deemed feasible, the prescribed 60 days consultation process must be initiated to obtain consent for from the next of kin(s);
- 38(4)c(i) – If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Sityhilelo Ngcatsha/Natasha Higgitt 021 202 8660) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule;
- 38(4)c(ii) – If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Ngqabutho Madida 012 320 8490), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule;
- 38(4)d – See section 51 of the NHRA regarding offences;



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Enquiries: Sityhilelo Ngcatsha
Tel: 0212028663
Email: sngcatsha@sahra.org.za
CaseID: 21031

Date: Thursday May 04, 2023
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- 38(4)e – The following conditions apply with regards to the appointment of specialists:
- If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;
- The Final BAR Report and EMPr must be submitted to SAHRA for record purposes;
- The decision regarding the EA Application must be communicated to SAHRA and uploaded to the SAHRIS Case application.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Sityhilelo Ngcatsha
Archaeology, Palaeontology, Meteorite Assistant
South African Heritage Resources Agency

Phillip Hine
Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:
Direct URL to case: <https://sahris.sahra.org.za/node/615920>

**Proposed development of the Mercury Solar PV Cluster for Kleinfontein Solar
PV1 near Orkney**

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Date: Thursday May 04, 2023
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Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.



water & sanitation

Department
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Enquiries: Makhura M
Telephone: 051 405 2133
Reference: 16/2/7/C702/D8/4

Landscape Dynamics Environmental Consultants (Pty) Ltd
3 palomino close,
Die wingerd,
Somerset west
7130

BY EMAIL

Email: info@landscapedynamics.co.za

For Attention: Susanna Nel (082 888 4060)
Annelize Erasmus (082 566 4530)

CONSULTATION WITH REGARDS TO DRAFT BASIC ASSESSMENT FOR THE PROPOSED KLEINFONTEIN SOLAR PV1 ON PORTION 1 OF THE FARM KLEINFONTEIN NO 369, FREE STATE PROVINCE.

APPLICANT: Kleinfontein Solar PV1

The Department of Water and Sanitation (DWS) has assessed the submitted Draft Basic Assessment Report for the proposed Kleinfontein Solar PV1 on Portion 1 of the Farm Kleinfontein No 369, Free State Province.

1. The document assessed highlighted that groundwater abstraction and storage thereof will take place at the proposed activity however this will be determined during the design phase of the project and will be included in the application for water use authorization for section 21 (a) and section 21(b) water use.
2. It is further noted that as some of the renewable infrastructure proposed activities are located near a delineated aquatic feature (within 500m from a wetland), they pose a risk of changing the bed, banks or characteristics of the watercourses or impeding or diverting flow in the watercourses. In this regards a section 21(c & i) of the National Water Act is triggered and an application will be required thereof.
3. It is important to note that responsibility rests with the applicant to ensure that the necessary authorisations required for undertaking any water uses as listed under Section 21 of the NWA are timeously applied for.
4. Notwithstanding the above, the responsibility rests with the applicant to identify any sources or potential sources of pollution from his undertaking and to take appropriate measures to

prevent any pollution of the environment. Failure to comply with the requirements of the National Water Act, 1998 (Act 36 of 1998) could lead to legal action being instituted against the applicant.

5. In case of leakages or spillages of hydrocarbons this department must be informed within 24 hours and immediate clean-up procedure must be conducted as stipulated in section 19 of the National Water Act; (Act 36 of 1998), any clean-up of the contaminants must be disposed of in a permitted hazardous landfill site and remediation report for the clean-up measures must be sent to the Department for comments before implementation.
6. In cases were the applicant intent to construct any underground insulations (e.g., batteries), the applicant is required to provide this Department with any information regarding any underground installation. The applicant must also ensure to put measures in place to minimize the potential for leakage and contamination of water resources.
7. The applicant must ensure that all hazardous and domestic waste generated is disposed of at a licensed landfill site. A signed copy of service agreement shall be submitted to this Department to demonstrate that indeed provision will be made to render such services.
8. Storm water must be managed and channelled effectively also the details of the storm water management plan must be forwarded to the local municipality for approval.

In conclusion it is recommended that the applicant should, at all times, take note of the pollution control provisions of the Section 19 (1) of the National Water Act 1998, which states that:

19 (1) An owner of land, a person in control of land or a person who occupies or uses the land on which –

(a) any activity or process is or performed or undertaken; or

(b) any other situation exists which causes, has caused or is likely to cause pollution of a water resource, must take all reasonable measures to prevent any such pollution of a water resource, from occurring, continuing, or recurring.

The applicant is also requested to inform the DWS of any incidents that are likely to have a pollution impact on water resources in relation to the proposed activity, within 24 hours of the occurrence of such incidents

Regards

Dr T Ntini
PROVINCIAL HEAD: FREE STATE
DATE:

25/4/2023

Landscape Dynamics

From: Lenong Pule (BFN) <LenongP@dws.gov.za>
Sent: Wednesday, 05 April 2023 7:33 AM
To: Musekene Nkhumeleni
Cc: Maseloane Kereemang; Kumalo Zodwa(BFN); Letloenyane Maureen (BFN); Lenong Pule (BFN); Mahlae Lahliwe (BFN); info@landscapedynamics.co.za
Subject: FW: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON
Attachments: Kleinfontein Solar PV1 Executive Summary of the Draft BAR.pdf; Vlakfontein Solar PV1 Executive Summary of the Draft BAR.pdf; Zaaiplaats Solar PV1 Executive Summary of the Draft BAR.pdf

Good morning my Colleagues,

Ntate Musekene, attached herewith, kindly find the email and its contents for your assistance.

&&&

Dear Annelize, on behalf of the Provincial Head of the Department of Water and Sanitation: Free State, I hereby would like to acknowledge receipt your email and its contents with kindness. The matter will receive attention.

Thanks and kind regards,

Pule Joseph Lenong (PJL)
Office of the Provincial Head
Department of Water and Sanitation
C/o Eastburger and Charlotte Maxeke Streets
Bloem Plaza Building, Second Floor
BLOEMFONTEIN
9301

051 405 9281
082 553 7206
lenongp@dws.gov.za

Report Water transgressions and leakages - Call 0800 200 200



NATIONAL WATER WEEK

20 - 26 MARCH

Accelerating Change

WATER IS LIFE. SANITATION IS DIGNITY.



From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Tuesday, 04 April 2023 21:57

Landscape Dynamics

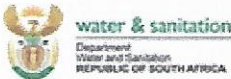
From: Mathiso Zoleka <MathisoZ@dws.gov.za>
Sent: Friday, 28 April 2023 7:57 AM
To: Landscape Dynamics
Cc: 'annelize'; 'megan'
Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Good morning

Kindly note that I have managed to download the documents. Thank you.

Regards
Zoleka Mathiso

**Department of Water and Sanitation
Compliance Monitoring and Enforcement**
Tel: 051 405 9255
Cell: 066 346 3478



From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Wednesday, April 26, 2023 11:59 AM
To: Mathiso Zoleka <MathisoZ@dws.gov.za>
Cc: 'annelize' <annelize@landscapedynamics.co.za>; 'megan' <megan@landscapedynamics.co.za>
Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Dear Zoleka

We have created a new WeTransfer file which you will receive in a separate email and are also providing you with clear instructions on how to access these documents. Please phone either me or Annelize (082 566 4530) if you experience any further difficulties.

[Click on Download](#)

Landscape Dynamics

From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Wednesday, 05 April 2023 11:27 AM
To: 'Baloi Tsakane'
Cc: Megan Grobler (megan@landscapedynamics.co.za); Susanna Nel (susanna@landscapedynamics.co.za)
Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Dear Tsakane

Thank you for your response. We will amend the list as requested.

Kind regards
Annelize Erasmus
Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za

Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za / agrobler@landscapedynamics.co.za

Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: Baloi Tsakane [mailto:BaloiTg@dws.gov.za]

Sent: Wednesday, 05 April 2023 10:50 AM

To: Landscape Dynamics

Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

Good Morning,

I don't think this e-mail is intended for me. I work for DWS but I don't work in the Free State Province. I see in your e-mail you already have the provincial head Mr Ntili. May you please remove my name underneath (Department of Water and Sanitation, Free State Provincial Office; care of the Water Use Licensing Unit (Middle Vaal Catchment), the Director- General Ms T Baloi) as I do not work there or within the unit. Mr Ntili is responsible and I am not sure who is within the unit, he might be able to guide you further.

Regards
Tsakane Baloi



community safety, roads & transport

Department of
Community Safety, Roads & Transport
FREE STATE PROVINCE

REF: P29/4/201/P15/2
ENQ: Mr. J.P.W. Maree

The Director
Landscape Dynamics Environmental Consultants
91 Wenning Street
Groenkloof
PRETORIA
0181

For attention: Me. Annelize Erasmus

MERCURY SOLAR PV CLUSTER PROJECT: NOTIFICATION OF BASIC ENVIRONMENTAL IMPACT ASSESSMENTS AND INVITATION TO PARTICIPATE: VILJOENSKROON: FREE STATE

1. Your email dated 31 March 2023 pertaining to the above-mentioned project near Viljoenskroon refers.
2. This Department's comments that are contained in its evenly numbered letter dated 06 April 2022 (copy attached for easy reference) remain relevant and applicable.
3. In addition to the comments that are contained in the above mentioned letter, it is also necessary that a traffic impact study, compiled by a professional traffic engineer who is registered with ECSA, be submitted for review and comment. The traffic impact study will determine the extent of the effect of the development on the provincial road network and the access requirements. Department's final comments will only be submitted once the traffic impact study has been reviewed.

Yours faithfully


DIRECTOR: ROAD ASSET MANAGEMENT SYSTEMS

Date:5/4/2023.....

P O Box 119, BLOEMFONTEIN, 9300
Perm Building, 4th Floor, 45 Maitland Street, BLOEMFONTEIN
Tel: 082 0599 725 e-mail: fsroadplanning@gmail.com



police, roads & transport

Department of
Police, Roads and Transport
FREE STATE PROVINCE

REF: P29/4/201/P15/2
ENQ: Mr. J.P.W. Maree

The Director
Landscape Dynamics Environmental Consultants
91 Wenning Street
Groenkloof
PRETORIA
0181

For attention: Me. Susanna Nel

MERCURY SOLAR PV CLUSTER PROJECT: NOTIFICATION OF BASIC ENVIRONMENTAL IMPACT ASSESSMENTS AND INVITATION TO PARTICIPATE: VILJOENSKROON: FREE STATE

1. Your email dated 30 March 2022 pertaining to the above-mentioned project near Viljoenskroon refers.
2. The following provincial roads are affected by the above-mentioned project (refer to the enclosed plan):
 - 2.1 100MW Vlakfontein Solar PV1:
 - (i) Secondary road S643 (statutory road reserve width of 25 meters); and
 - (ii) Tertiary road T3762 (statutory road reserve width of 16 meters).
 - 2.2 100MW Biesiefontein Solar PV1:
 - (i) Tertiary road T3762 (statutory road reserve width of 16 meters).
 - 2.3 100MW Kleinfontein Solar PV1
 - (i) Tertiary roads T3762 and T4388 (statutory road reserve width of 16 meters).
 - 2.4 100MW Zaaiplaats Solar PV1
 - (i) Secondary road S729 (statutory road reserve width of 25 meters).

Directorate Road Asset Management Systems

P O Box 119, BLOEMFONTEIN, 9300
Medfontein Building, 1st Floor, St Andrew Street, BLOEMFONTEIN
Cell: 082 0599725 e-mail: fsroadplanning@gmail.com

File

2.5 100MW Homah Solar PV1

- (i) Primary road P15/2 (statutory road reserve width of 32 meters); and
- (ii) Secondary road S1294 (statutory road reserve width of 25 meters).

2.6 100MW Ratpan Solar PV1 and 75MW Ratpan Solar PV2

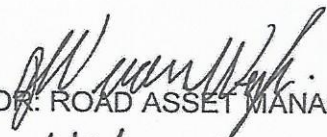
- (i) Primary road P15/2 (statutory road reserve width of 32 meters); and
- (ii) Secondary road S642 (statutory road reserve width of 25 meters).

3. This Department supports the above-mentioned solar PV cluster project subject to the following conditions:

- 3.1 No structures must be erected within 95,0 metres measured from the centre line of the provincial road listed in the above-mentioned paragraph 2 without the written approval issued by this Department for the relaxation of the building line (structures include any overhead power line that will be erected parallel with or across the alignment of a provincial road). The building line is imposed in terms of the provisions of sections 9 and 9A of the Advertising on Roads and Ribbon Development Act, 1940 (Act no. 1 of 1940).
- 3.2 Due to the vague information that is currently available, this Department will only be able to consider and approve any specific access/es on receipt of a completed application and drawing that shows the geometric layout and exact locality of the access/es. An application form for the above-mentioned purpose is attached hereto. The application for the access/es will thus be considered once the formal application for an access/es is submitted to this Department.
- 3.3 The condition of the provincial gravel roads (secondary roads S642, S643, S729, S1294 and tertiary roads T3762 and T4388), is not in a good condition. The increase in traffic during the construction phase of the proposed development will require more intense routine maintenance and certain sections will have to be re-graveled. Mulilo Renewable Project Developments (Pty) Ltd will therefore be required to carry out such maintenance at their expenditure.
- 3.4 No provincial borrow pits may be utilized for construction of the development of the facilities. This Department must therefore be contacted to indicate the positions of the provincial borrow pits (There are no provincial borrow pits on the properties affected by the Mercury Solar PV Cluster Project).
- 3.5 Applications for way leave for any other operations, such as power lines, within the 95,0m measured from the centre line of the provincial roads, must be submitted to this Department on the similar application form that is referred to in paragraph 3.2 of this letter.

4. Any enquiries pertaining to the contents of this letter can be addressed to this Department's Mr. J.P.W. Maree at Cell. No. 0820599725 or e-mail fsroadplanning@gmail.com.

Yours faithfully


DIRECTOR: ROAD ASSET MANAGEMENT SYSTEMS

Date: 6/4/2012





police, roads and transport

Department of
Police, Roads and Transport
FREE STATE PROVINCE

WAY LEAVE / ENCROACHMENT

APPLICATION

APPLICATION IN TERMS OF THE ROADS AND RIBBON DEVELOPMENT ACT 194, (ACT 21 OF 1941) AND THE ROADS ORDINANCE 1968 (ORDINANCE 4 OF 1968) TO ENCROACH ON THE PROVINCIAL ROAD RESERVE BOUNDARIES OR WITHIN THE BUILDING RESTRICTION AREA

SERVICE OWNER:	APPLICANT:
Address:	Address:
Contact Person:	Contact Person
Telephone Numbers Office: Cell: Facimilee: e-mail:	Telephone Numbers Office: Cell: Facimilee: e-mail:

1. PURPOSE OF APPLICATION *(Mark with X)*

1. To install a new utility service	<input type="checkbox"/>
2. To extent an existing utility service	<input type="checkbox"/>
3. To maintain/repair, replace an existing utility service	<input type="checkbox"/>
4. To apply for and access	<input type="checkbox"/>
5. To perform other operations	<input type="checkbox"/>
6. Application for the relaxation of the building line	<input type="checkbox"/>

2. DETAILS OF APPLICATION AND LOCALITY

FULLY DESCRIBE THE EXTENT OF THE SERVICE AND/OR WORK TO BE UNDERTAKEN IN THE ROAD RESERVE OR BUILDING RESTRICTION AREA AND CLEARLY INDICATE THE LOCATION RELATIVE TO THE KM MARKERS (if any) OR THE START- / END POINT OF THE ROAD. KINDLY COMPLETE THE REQUIRED INFORMATION BELOW AND ATTACHED A LOCALITY PLAN (SCALE 1: 100 000)

ROUTE NUMBER

ROAD NUMBER

DESTINATIONS: From to

LOCATION FROM THE START- / END POINT OF ROAD (underline the applicable point of orientation)

OR

LOCATION BETWEEN- / AT KILOMETER MARKER AND

3. DESCRIPTION

.....

.....

.....

4. GENERAL INFORMATION (Mark with X)

KINDLY SUBMIT 3 COPIES OF SIZE A2 LAYOUT DRAWINGS WITH THIS APPLICATION THAT CONTAINS THE FOLLOWING INFORMATION FOR ANY OVERHEAD / UNDERGROUND UTILITY SERVICES : LOCALITY PLAN (Scale 1 : 100000), TERRAIN LAYOUT (Scale 1 : 500) ,CROSS-SECTIONAL DIAGRAMS (Scale 1 : 50) AND OTHER DETAILS (Scale 1 : 10 - Scale 1 : 25). THE DRAWINGS MUST CONTAIN SUFFICIENT DIMENSIONS TO SHOW THE PLACEMENT OF THE SERVICES WITHIN AND /OR OUTSIDE THE ROAD RESERVE. THE DEPARTMENT MAY REQUIRE ANY OTHER SPECIAL DRAWINGS FOR THE ATTACHMENT OF SERVICES TO BRIDGE STRUCTURES AND GEOMETRIC LAYOUT DRAWINGS FOR ACCESSES

WATER SEWER GAS ELECTRICITY TELECOMMUNICATION ACCESS
 OTHER (Specify)

SERVICE TYPE:

Crossing Overhead

Crossing Underground

Parrallel Overhead

Parrallel Underground

CONSTRUCTION METHOD:

Excavation

Auger Drilling

Pipe Jacking

Attachment

Other

(Specify)

5. DETAILS OF SERVICE PARRALLEL TO PROVINCIAL ROAD

From Km	To Km	Distance within <input type="checkbox"/> / outside <input type="checkbox"/> Road Reserve Boundary	Burried <input type="checkbox"/> Depth (m)	Overhead <input type="checkbox"/> Height (m)

6. DETAILS OF SERVICE THAT CROSSES THE PROVINCIAL ROAD

THROUGH OR ABOVE ROAD PAVEMENT					THROUGH CULVERT		
Kilometer Point	Depth or height in meters (m) below or above	Burried <input type="checkbox"/> Overhead <input type="checkbox"/>		Distance of structures from the centerline of the road	Size, Type & Class of sleeve / duct	Number of cells, Type and Cross-Sectional Area of stormwater structure	Cross-Sectional Area of the service / sleeve
		Service Type & Size					
		Telecom Cable					
		Pipe line					

7. SERVICE ATTACHED TO BRIDGE- / CULVERT STRUCTURES

Kilometer Point	Bridge- / Culvert Number	Name of Bridge / River / Sprout

8. ADMINISTRATIVE MATTERS

Your Reference:

Your Drawing No's:

9. DECLARATION BY SERVICE OWNER / REPRESENTATIVE

I ACCEPT ALL CONDITIONS IMPOSED IN TERMS OF ANY AGREEMENT BETWEEN THE DEPARTMENT OF POLICE, ROADS AND TRANSPORT OF THE FREE STATE PROVINCIAL GOVERNMENT, CHIEF DIRECTORATE ROADS
 I AM AUTHORISED TO SIGN ON BEHALF OF THE SERVICE OWNER

.....
 PRINT NAME

.....
 SIGNATURE

.....
 DATE

10. COMPLETED FORM, LETTERS AND ATTACHMENTS TO BE RETURN TO

POSTAL ADDRESS

THE DIRECTOR : ROAD ASSET MANAGEMENT SYSTEMS
 DEPARTMENT OF POLICE ROADS AND TRANSPORT
 CHIEF DIRECTORATE ROADS
 P.O. BOX 119
 ROOM 119 or ROOM 113
 MEDFONTEIN BUILDING
 BLOEMFONTEIN, 9300

PHYSICAL ADDRESS

THE DIRECTOR : ROAD ASSET MANAGEMENT SYSTEMS
 DEPARTMENT OF POLICE ROADS AND TRANSPORT
 CHIEF DIRECTORATE ROADS
 ROOM 119 or ROOM 113
 MEDFONTEIN BUILDING
 152 ST ANDREW STREET
 BLOEMFONTEIN, 9301
 TEL: (051) 409 8606 or 082 0599 725

FOR ATTENTION

THE ASSISTANT DIRECTOR
 ROAD ASSET MANAGEMENT SYSTEMS DIRECTORATE
 TEL: +27(51) 409 8606
 CELL: 082 0599 725
 E-MAIL: fsroadplanning@gmail.com

11. FOR OFFICIAL USE

COMPLETION DATE	FILE REFERENCE
.....
SIGNATURE CHIEF ENGINEER: PLANNING	DATE APPROVED

Landscape Dynamics

From: Carlo Geel <CGeel@Harmony.co.za>
Sent: Tuesday, 18 April 2023 8:44 AM
To: Landscape Dynamics
Cc: 'Susanna Nel'; 'Megan Grobler'; StrohL@caa.co.za; ShogoleE@caa.co.za
Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON and others

All Good. Thank you for the feedback.

Carlo Geel
Environmental Manager
Harmony (North – West Operations)
Harmony Gold Mining Company Limited
T: +27 (0)18 478 4009
C: +27 (0) 83 596 6741/ +27 (0) 73 379 4221
Email: CGeel@Harmony.co.za
www.harmony.co.za
Vuvuzela Anonymous Hotline 0800 204 256



At Harmony we are all part of the Thibakotsi journey.

SAFETY comes first. To achieve our goal of zero-harm, we lead with **HONESTY** and **ACCOUNTABILITY**, staying **CONNECTED** to each other. By living these values and arriving at work engaged, energised and with a duty to care for myself and those around me – we will **ACHIEVE** our goals.



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From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Tuesday, April 18, 2023 8:24 AM

To: Carlo Geel <CGeel@Harmony.co.za>

Cc: 'Susanna Nel' <susanna@landscapedynamics.co.za>; 'Megan Grobler' <megan@landscapedynamics.co.za>; Strohl@caa.co.za; ShogoleE@caa.co.za

Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON and others

This Message originated outside your organization.

Dear Ms Geel

Thank you for the information. At this stage we believe that the solar facilities planned will not impact negatively on this Gliding Club, due to the nature of the solar facility structures and the nearest distance to the development area being approximately 8km southeast of the gliding club – see Google Earth image attached hereto. The powerlines (grid connection) associated with the solar cluster are 132kV lines and all connect to the very nearby existing Mercury MTS - numerous 132kV and 400kV powerline already traverse the macro area.

The South African Civil Aviation Authority (CAA), Ms Lizell Stroh (Inspector: Obstacles (Solar and Windfarms) and Ms Evelyn Shogole (Environmental Specialist) who deals with obstacles have also been CC'd on this email and their response if any will be communicated with yourself.

Kind regards

Annelize Erasmus

Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za

Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za / agrobler@landscapedynamics.co.za

Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: Carlo Geel [<mailto:CGeel@Harmony.co.za>]

Sent: Monday, 17 April 2023 1:16 PM

To: Landscape Dynamics

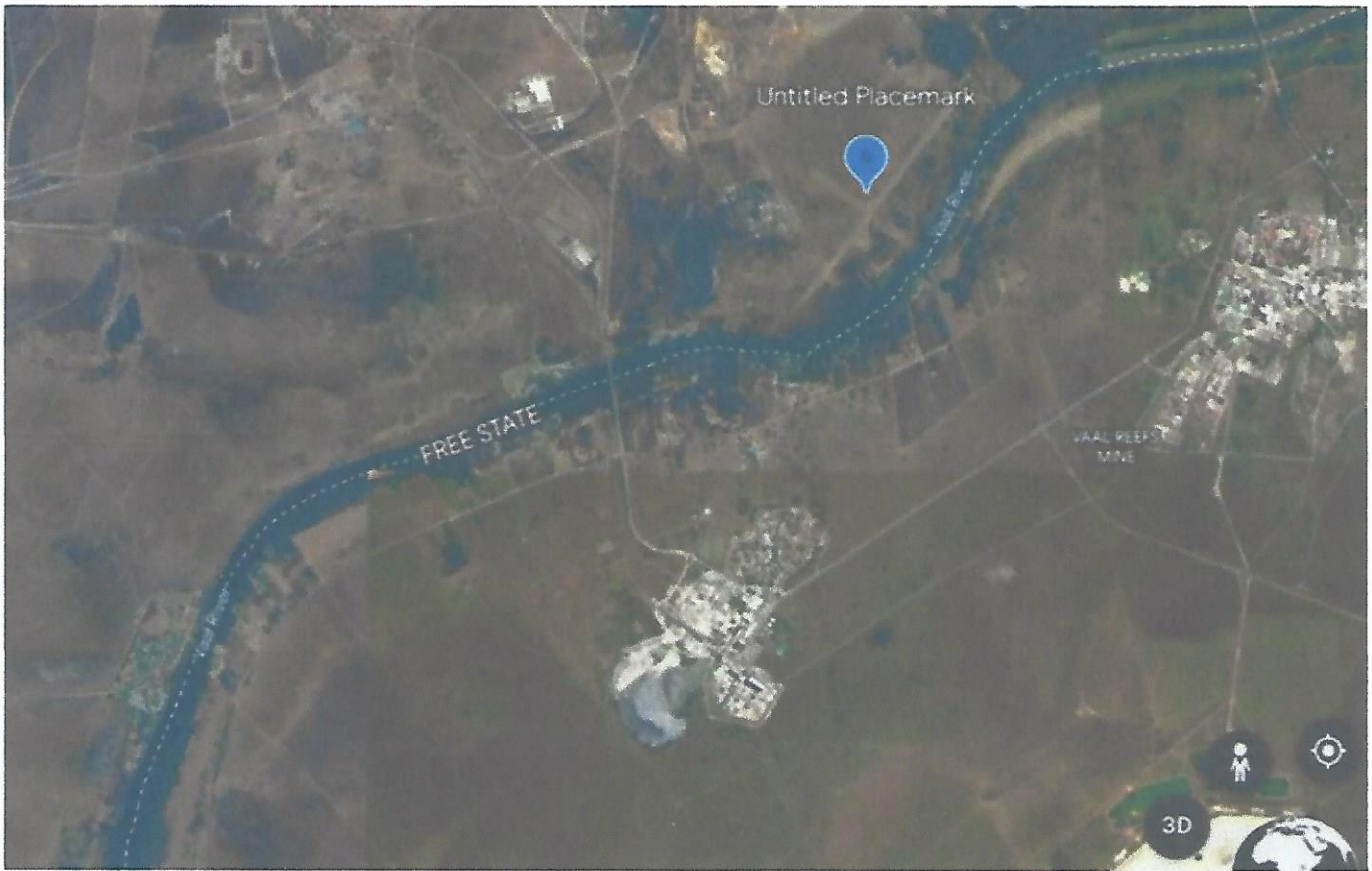
Cc: 'Susanna Nel'; 'Megan Grobler'

Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON and others

Good day.

The Gliding Club is on the Vaal Reefs (North West Province) side of the Vaal River.

It probably will have no impact on the projects, but for consideration. See below from Google Earth.



Carlo Geel
Environmental Manager
Harmony (North – West Operations)
Harmony Gold Mining Company Limited
T: +27 (0)18 478 4009
C: +27 (0) 83 596 6741/ +27 (0) 73 379 4221
Email: CGeel@Harmony.co.za
www.harmony.co.za
Vuvuzela Anonymous Hotline 0800 204 256



At Harmony we are all part of the Thibakotsi journey.

SAFETY comes first. To achieve our goal of zero-harm, we lead with **HONESTY** and **ACCOUNTABILITY**, staying **CONNECTED** to each other. By living these values and arriving at work engaged, energised and with a duty to care for myself and those around me – we will **ACHIEVE** our goals.



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From: Landscape Dynamics <info@landscapedynamics.co.za>

Sent: Monday, April 17, 2023 12:06 PM

To: Carlo Geel <CGeel@Harmony.co.za>

Cc: 'Susanna Nel' <susanna@landscapedynamics.co.za>; 'Megan Grobler' <megan@landscapedynamics.co.za>

Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON and others

This Message originated outside your organization.

Dear Carlo

Thank you for your comment. It will be addressed and included in the Final Basic Assessment Report to be submitted to the DFFE for approval.

Do you have any more information on the gridding club referred to and/or the location thereof?

Kind regards

Annelize Erasmus

Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za

Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za / agrobler@landscapedynamics.co.za

Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: Carlo Geel [<mailto:CGeel@Harmony.co.za>]

Sent: Monday, 17 April 2023 10:01 AM

To: Landscape Dynamics

Cc: Susanna Nel; Megan Grobler; Lloyd Barnes

Subject: RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON and others

Importance: High

Good day

Refer to the proposed PV projects and consequently long terms activities.

For the proposed PV cluster, please consider the following:

- 1) make sure about firebreak/ firefighting arrangements (engage with neighboring farmers/ land owners)
- 2) make sure about informing affected communities
- 3) engage timeously with the local authority regarding authorized general waste disposal and potable water supply
- 4) plan for the ultimate disposal of hazardous waste/ material e.g., batteries and solar panels
- 5) ensure effective security arrangements (the area have a lot of illegal mining activities)
- 6) plan/ ensure for dust mitigation and preferably fall-out dust monitoring (solar farms expose a lot of unprotected land).
- 7) ensure a complaints registers/ reporting system
- 8) effectively assess/geology the land, as the planned areas might be prone to sinkhole formations (dolomitic areas)
- 9) Consider the impact on the gridding club near the Vaal River, if any.

Kind Regards

Carlo Geel

Environmental Manager

Harmony (North – West Operations)

Harmony Gold Mining Company Limited

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From: Landscape Dynamics <info@landscapedynamics.co.za>

Sent: Tuesday, April 4, 2023 10:13 PM

Cc: Susanna Nel <susanna@landscapedynamics.co.za>; Megan Grobler <megan@landscapedynamics.co.za>; Lloyd Barnes <lloyd@mulilo.com>

Subject: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON

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Landscape Dynamics

From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Tuesday, 11 April 2023 11:10 AM
To: 'John Geeringh'
Cc: Susanna Nel (susanna@landscapedynamics.co.za); Megan Grobler (megan@landscapedynamics.co.za); Lloyd Barnes
Subject: RE: [CAUTION:EXTERNAL EMAIL] NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJJOENSKROON
Attachments: Kleinfontein directly to MTS.kmz; Kleinfontein via LILO lines.kmz; Vlakfontein directly to the Mercury MTS.kmz; Vlakfontein via LILO lines.kmz; Zaaiplaats Directly to MTS.kmz; Vlakfontein Solar PV1 - Layout (2023-02-14).jpg; A(6) KMZ File of the Vlakfontein Solar PV1.kmz; Kleinfontein Solar PV1 - Layout (2023-02-14).jpg; A(6) KMZ File Kleinfontein Solar PV1.kmz; A(6) KMZ File Zaaiplaats Solar PV1.kmz; Zaaiplaats Solar PV1 - Layout (2023-01-14).jpg

Dear John

Please find attached the relevant KMZ files and JPG layouts of the three projects as per your request. This part of the Public Participation Process refers to the following three solar facilities with associated grid connections:

SOLAR FACILITY	GRID CONNECTION
Zaaiplaats Solar PV1	Zaaiplaats Solar PV1 Grid Connection: Connecting directly to the Mercury MTS
Kleinfontein Solar PV1	Kleinfontein Solar PV1 Grid Connection: Connecting to the Mercury MTS via LILO lines to the existing Mercury-Vaal Reefs 11 No 1 power line
Kleinfontein Solar PV1	Kleinfontein Solar PV1 Grid Connection: Connecting directly to the Mercury MTS
Vlakfontein Solar PV1	Vlakfontein Solar PV1 Grid Connection: Connecting to the Mercury MTS via LILO lines to the existing Mercury-South Vaal 1 power line
Vlakfontein Solar PV1	Vlakfontein Solar PV1 Grid Connection: Connecting directly to the Mercury MTS

It will really be appreciated if you can provide your comment referring to the specific grid connection and/or solar facility.

Please not hesitate to contact our offices should you require any clarification.

Kind regards
Annelize Erasmus
Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za

Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za / agrobler@landscapedynamics.co.za

Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: John Geeringh [mailto:GeerinJH@eskom.co.za]

Sent: Tuesday, 11 April 2023 9:34 AM

To: Landscape Dynamics

Subject: RE: [CAUTION:EXTERNAL EMAIL] NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON

Please send me a KMZ file of the affected properties, proposed development footprint and proposed grid connection. Please find attached Eskom requirements for work at or near Eskom infrastructure and servitudes, as well as a setbacks guideline for renewable energy developments.

Kind regards

John Geeringh (Pr Sci Nat) Reg. EAP (EAPASA)
Senior Consultant Environmental Management
Grid Planning: Land and Rights
Eskom Transmission Division
Megawatt Park, D1Y42, Maxwell Drive, Sunninghill, Sandton.
P O Box 1091, Johannesburg, 2000.
Tel: 011 516 7233
Cell: 083 632 7663
Fax: 086 661 4064
E-mail: john.geeringh@eskom.co.za

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From: Landscape Dynamics <info@landscapedynamics.co.za>

Sent: Tuesday, 04 April 2023 21:57

To: BCAdmin@environment.gov.za; rmagodi@dffe.gov.za; mphapangm@destea.gov.za; mpmphapang@gmail.com; ntilit@dwa.gov.za; lenongP@dws.gov.za; letloenyane@dws.gov.za; mahlael@dws.gov.za; kumaloz@dws.gov.za; maseloanek@dws.gov.za; musekenen2@dws.gov.za; baloitg@dws.gov.za; LydiaB@daff.gov.za; info@dalrrd.gov.za; DLUSM@DAFF.gov.za; petuniam@daff.gov.za; mokonet@dard.gov.za; Ramklowni@nra.co.za; mabason@nra.co.za; fsroadplanning@gmail.com; Kagisho.mokae@energy.gov.za; Kagisho.Mokae@dmre.gov.za; Wayleave

Annelize Erasmus

From: Letlhogonolo Padi <PadiHL@eskom.co.za>
Sent: Wednesday, 19 April 2023 3:29 PM
To: Landscape Dynamics; annelize@landscapedynamics.co.za
Cc: Mamokete Mafume; Precious Mashiteng; Itumeleng Moeng; Megan Grobler; Susanna Nel
Subject: RE: [CAUTION:EXTERNAL EMAIL] RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJOENSKROON, FREE STATE PROVINCE
Attachments: Mercury Cluster Projects Area.docx

Good day Annelize

Attached are the depictions of how the 2X 765kv power lines will be affected by each of the 5 plants/facilities. Please note that the servitude width for both lines will be between 200m to 220m wide and mostly running parallel to the existing powerlines.

Please let me know if you need any additional information regarding this.

Kind Regards

Letlhogonolo Padi

From: Landscape Dynamics <info@landscapedynamics.co.za>
Sent: Wednesday, 12 April 2023 15:31
To: Letlhogonolo Padi <PadiHL@eskom.co.za>; annelize@landscapedynamics.co.za
Cc: Mamokete Mafume <MafumoML@eskom.co.za>; Precious Mashiteng <MashitePR@eskom.co.za>; Itumeleng Moeng <Moengi@eskom.co.za>; Megan Grobler <megan@landscapedynamics.co.za>; Susanna Nel <susanna@landscapedynamics.co.za>
Subject: [CAUTION:EXTERNAL EMAIL] RE: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VIJOENSKROON, FREE STATE PROVINCE

Dear Mr Padi

Please find attached hereto a combined file for the entire Mercury Solar PV Cluster Project (5 solar facilities) of which the three solar PVs referred to in this email form a part. It would be appreciated if you could indicate separately how each of the proposed solar facilities might affect your planning in terms of the 765kv power line from Mercury to the proposed Umntu substation in Hotazel.

Kind regards
Annelize Erasmus
Reg. EAP (EAPASA)



Landscape Dynamics Environmental Consultants

Central e-mail : info@landscapedynamics.co.za

Pretoria Office : A. Erasmus, Tel 082 566 4530 / annelize@landscapedynamics.co.za / agrobler@landscapedynamics.co.za

Cape Town Office : S. Nel, Tel 082 888 4060 / susanna@landscapedynamics.co.za

Website Address : www.landscapedynamics.co.za



From: Letlhogonolo Padi [<mailto:PadiHL@eskom.co.za>]

Sent: Wednesday, 12 April 2023 2:32 PM

To: annelize@landscapedynamics.co.za

Cc: info@landscapedynamics.co.za; Mamokete Mafume; Precious Mashiteng; Itumeleng Moeng

Subject: NOTIFICATION OF AVAILABILITY OF THREE DRAFT BASIC ASSESSMENT REPORTS FOR COMMENT: VLAKFONTEIN SOLAR PV1; ZAAIPLAATS SOLAR PV1 AND KLEINFONTEIN SOLAR PV1, VILJOENSKROON, FREE STATE PROVINCE

Importance: High

Good day Annelize

With reference to the above, we have a planned project to construct a 765kv power line from Mercury to the proposed Umntu substation in Hotazel which might be affected by this development.

Could you please be so kind to forward us the kmz/dgn files of your planned development so we can superimpose it on our plans and see how we might be affected. Once this is done, we will then give comment to you regarding your project.

Your valued response in this will be highly appreciated

Kind regards

Letlhogonolo Padi

Senior Advisor Land & Rights

SAGC (GTcES 1007)

SACPLAN (C/8192/2016)

Eskom Transmission

Megawatt Park 01 Maxwell Drive Sunninghill

P.O Box 1091 Johannesburg 2000

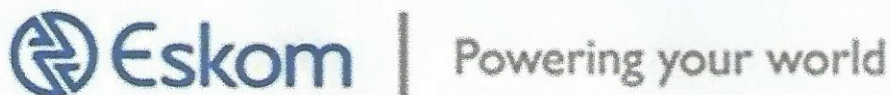
+2711 800 3552 (W)

8131 3552 (PAX)

+2773 581 6624 (C)

+2786 465 0832 (F)

padihl@eskom.co.za or padihl@yahoo.com



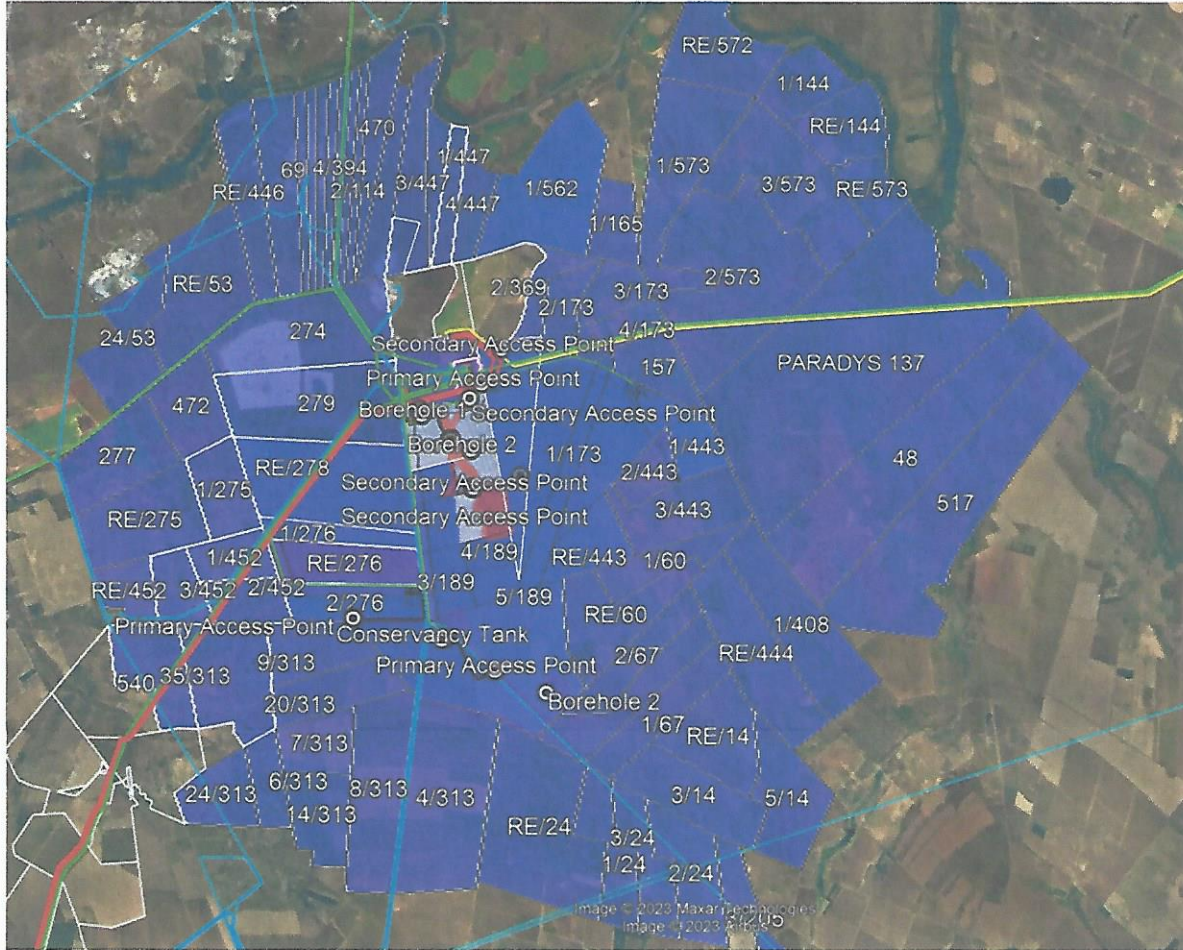
Our Values: Zero Harm * Integrity * Innovation * Sinobunto (caring) * Customer Satisfaction * Excellence

"Try not to become a man of success, but rather try to become a man of value"- Albert Einstein

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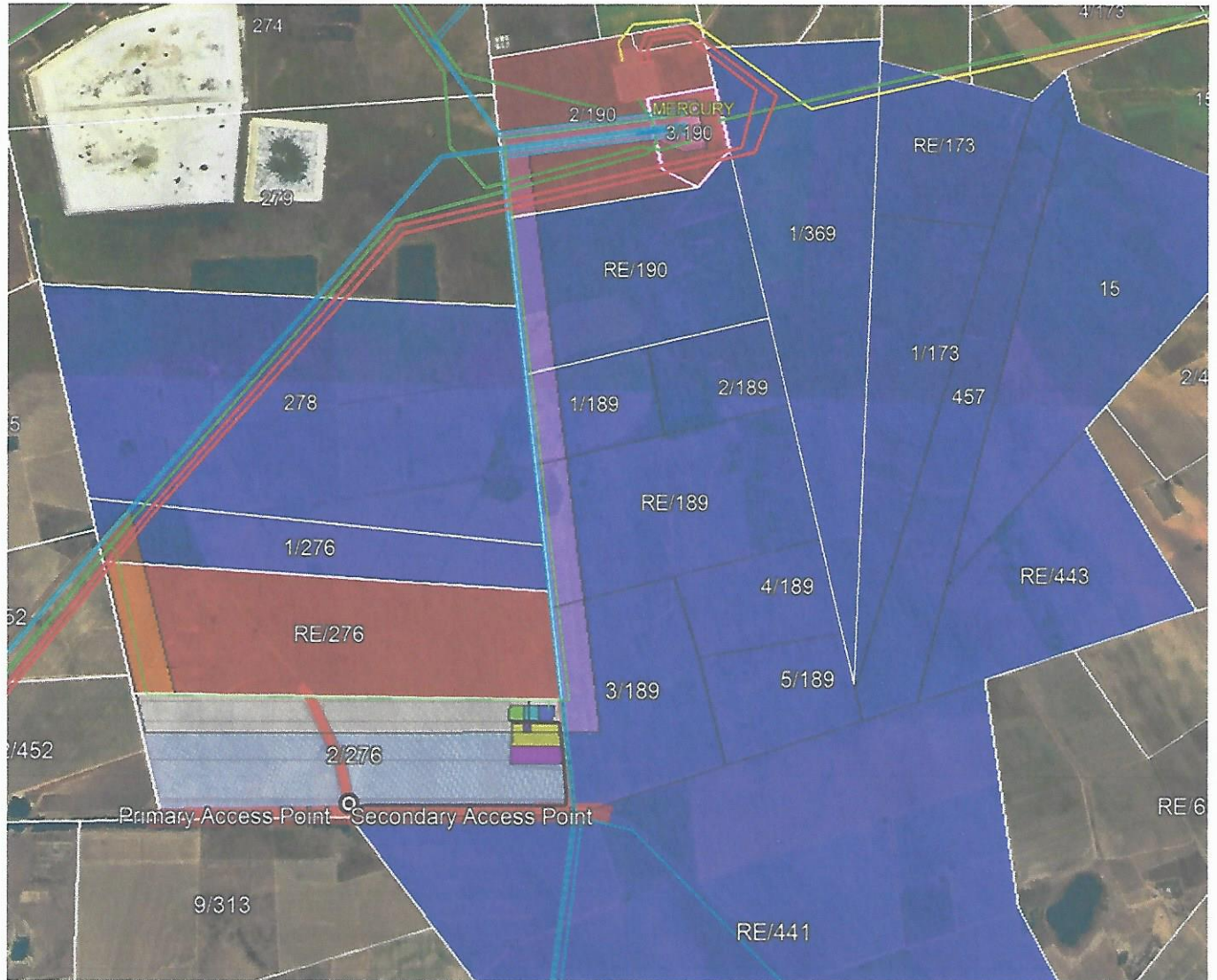
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Mercury Cluster Projects Area



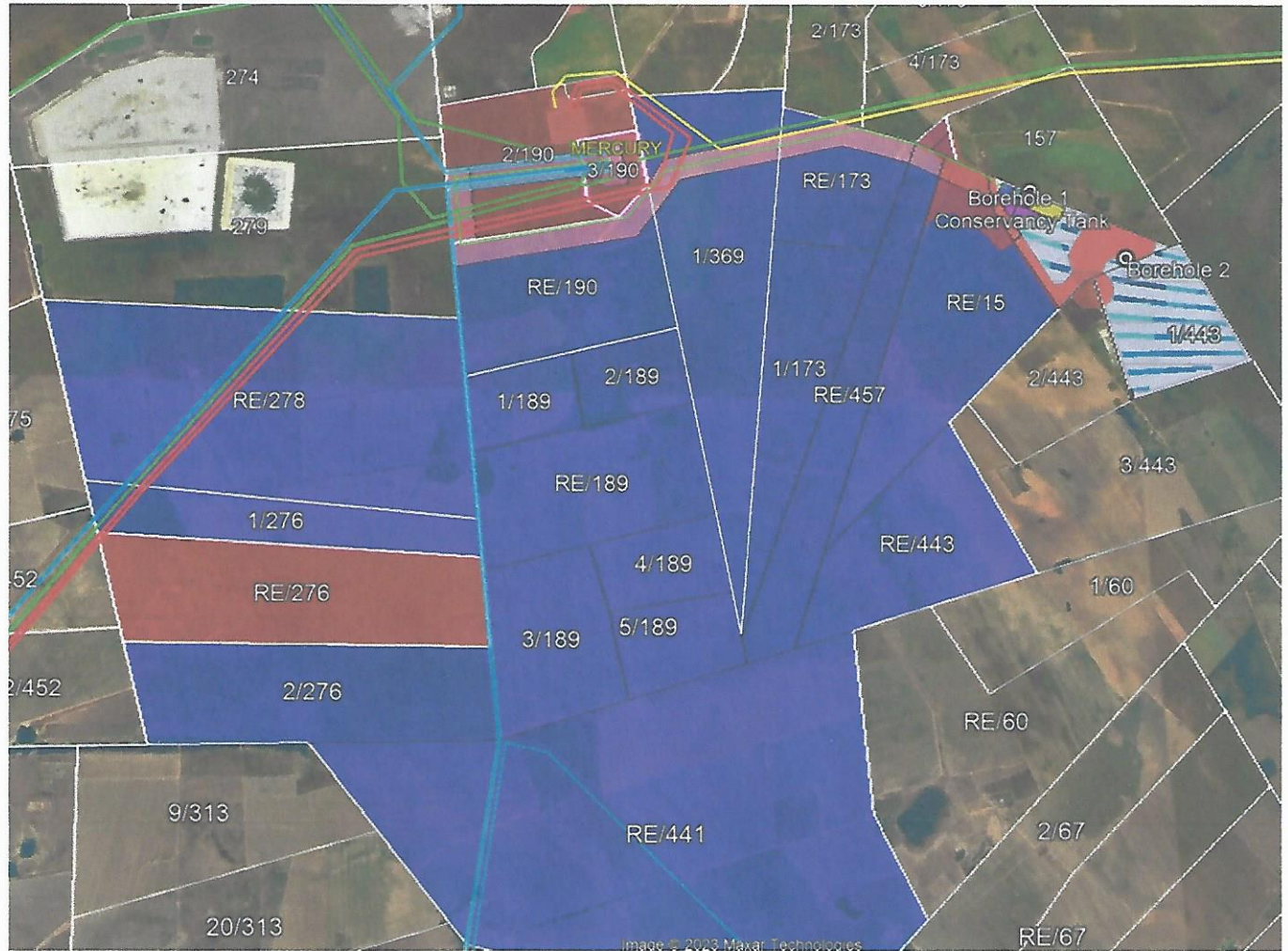
Hormah Solar PV1 (2023-02-03)

Red lines indicate the 2 x Mercury – Umtu 765kV Lines



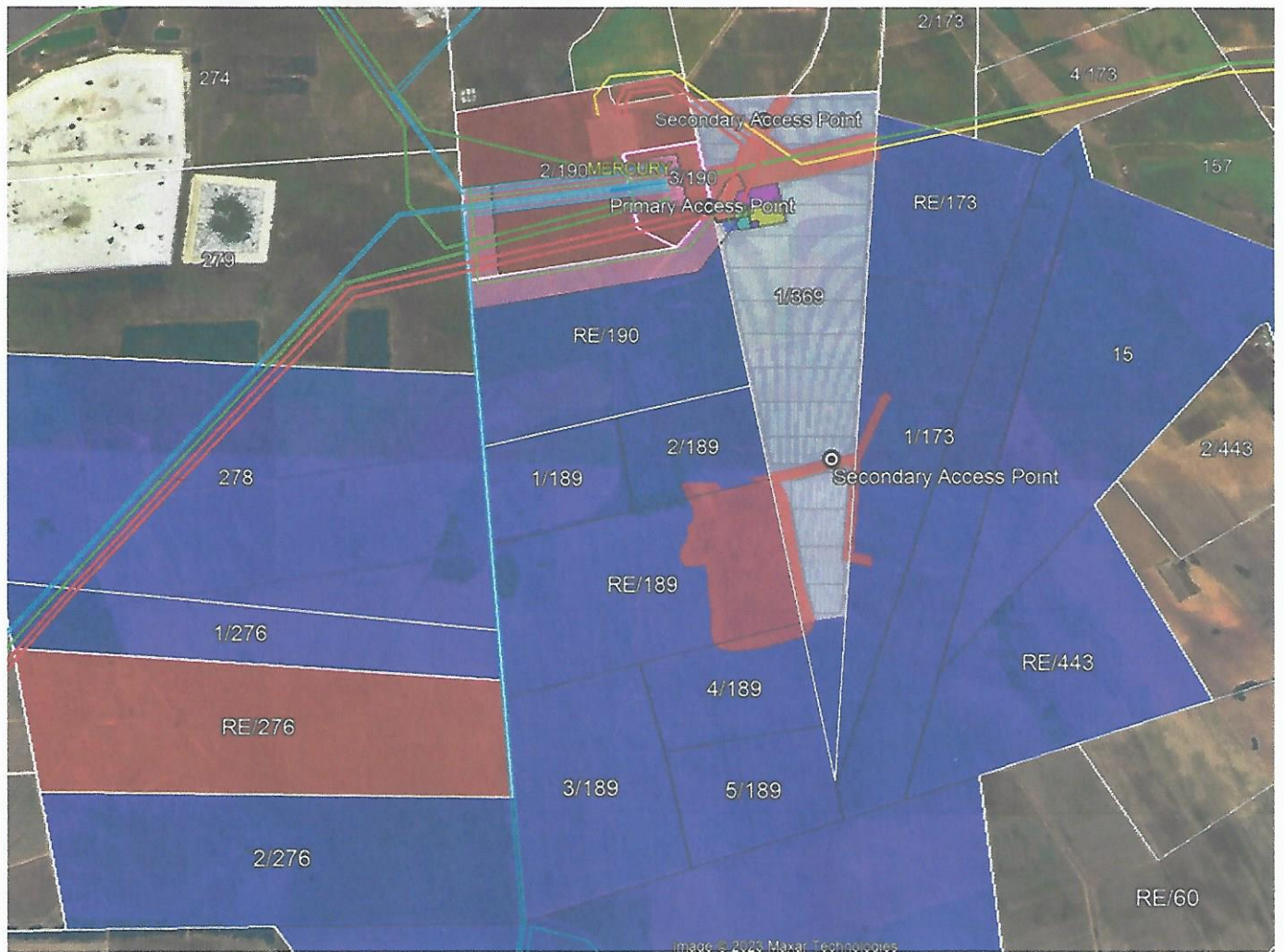
Vlakfontein Solar PV1 (2023-02-03)

Red lines indicate the 2 x Mercury – Umtu 765kV Lines



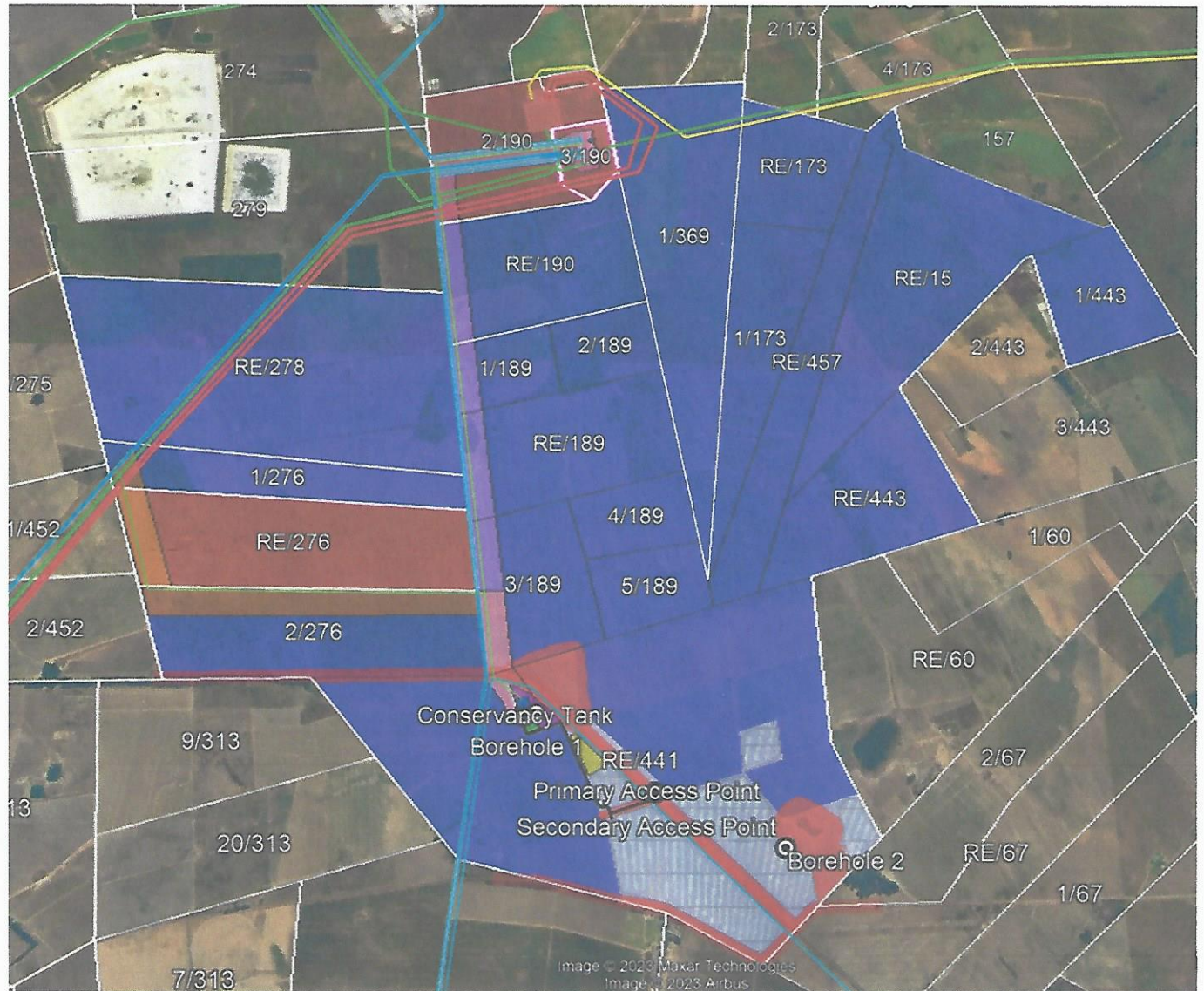
Kleinfontein Solar PV1 (2023-02-03)

Red lines indicate the 2 x Mercury – Umtu 765kV Lines



Ratpan Solar PV1 (2023-02-03)

Red lines indicate the 2 x Mercury – Umtu 765kV Lines



Zaaiplaats Solar PV1 (2023-02-03)

Red lines indicate the 2 x Mercury – Umtu 765kV Lines



From: Johan Janse van Rensburg <johan@mulilo.com>
Sent: Tuesday, 30 May 2023 12:21 PM
To: hansaa@eskom.co.za; maraisaj@eskom.co.za; ntshunb@eskom.co.za; thomasc@eskom.co.za; naickee@eskom.co.za; esther@nsovo.co.za; mobothhh@eskom.co.za; worthii@eskom.co.za; John Geeringh; Keneilwe Thejane; PadiHL@eskom.co.za; mahlatse.seretlo@nsovo.co.za; Mamokete Mafume; Precious Mashiteng; rejoyce@nsovo.co.za; busker@eskom.co.za; minnies@eskom.co.za
Cc: susanna; megan; annelize; Naniki Nzuzo; Warren Morse; Lloyd Barnes
Subject: FW: Addressing Kleinfontein & Zaaiplaats Solar PV1 PPP Comments regarding Mercury MTS
Attachments: 2023-05-24 Eskom Meeting Layouts.kmz; 2023-05-25 Post Eskom Meeting Layouts.kmz; Eskom Consent Letter.pdf

Dear Mr Ahmed Hansa and Eskom Representatives

Following the discussion regarding the encroachment of the Zaaiplaats Solar PV1 and Kleinfontein Solar PV1 project, Eskom has provided and updated kmz pack indicated the planned future line route around the Mercury Main Transmission Substation.

I have made slight adjustments to the these planned line routes to ensure the maximum plant footprints are preserved, while adhering to Eskom's minimal separation distances between parallel lines and servitude widths. Please see attached the kmz of the information that was presented during the meeting on 24 May 2023 along with the updated Mulilo project footprints and Eskom line routes.

If the attached information is acceptable, please respond to the attached letter requesting consent and describing the adjustments that were made to the originals project footprints as they were presented in the Draft Basic Assessment Reports that Eskom commented on during the public participation process. These initial footprints and Eskom's concerns around these projects were discussed in meeting on 11 May 2023. The letter also requests consent for the Zaaiplaats Solar PV1 and Kleinfontein Solar PV1 projects to be positioned within the usual 2 km buffer zone around Eskom substations.

Kind regards
Johan



Johan Janse van Rensburg | Project Engineer | **Mulilo Renewable Project Developments (Pty) Ltd**
MEng (Industrial) | BEng (Chemical) | PGDip (Sustainable Development) | PGDip (Future Studies)
Tel: +27 21 685 3240 | Email: johan@mulilo.com
Physical: Top Floor, Golf Park 4, Raapenberg Road, Mowbray, 7700
Postal: PostNet Suite #53, Private Bag X21, Howard Place, 7450

From: Johan Janse van Rensburg
Sent: Monday, May 22, 2023 4:45 PM
To: hansaa@eskom.co.za; maraisaj@eskom.co.za; ntshunb@eskom.co.za; thomasc@eskom.co.za; naickee@eskom.co.za; esther@nsovo.co.za; mobothhh@eskom.co.za; worthii@eskom.co.za; geerinh@eskom.co.za; Keneilwe Thejane <thejank@eskom.co.za>; PadiHL@eskom.co.za; mahlatse.seretlo@nsovo.co.za; Mamokete Mafume <mafumoml@eskom.co.za>; mashitepr@eskom.co.za;

rejoice@nsovo.co.za; busker@eskom.co.za; minnies@eskom.co.za

Cc: Constantin Hatzilambros <constantin@mulilo.com>; Lloyd Barnes <lloyd@mulilo.com>; Andrew Pearson <andrew@mulilo.com>; Warren Morse <warren@mulilo.com>; Gerhard McNamara <gerhard@mulilo.com>; Naniki Nzuzi <naniki@mulilo.com>; Bulelani Dunjana <bulelani@mulilo.com>; annelize <annelize@landscapedynamics.co.za>; susanna <susanna@landscapedynamics.co.za>

Subject: Addressing Kleinfontein & Zaaiplaats Solar PV1 PPP Comments regarding Mercury MTS

Dear Eskom Representatives

Please see the description below and attached kmz explaining the motivation for the adjusted layouts for the Zaaiplaats Solar PV1 and Kleinfontein Solar PV1 projects following the engagement with Eskom on the 11th of May 2023 regarding their Public Participation Process comments on the Draft BARs of the Mercury cluster of projects.

Figure 1 shows the location of the 5 solar PV projects surrounding the Mercury Substation.

All properties outlined in yellow have lease option agreements in place with Mulilo. The site sensitivities that contributed to the current layouts are included in the attached kmz file. Mulilo had intended to develop as much of the suitable land on these properties for solar PV projects as possible, however, most were deemed unsuitable due to agricultural and other sensitivities identified during the specialist studies that were conducted in the early stages of the EIA process. The properties and project sites that are currently being proposed were the result of this sensitivity screening process and deemed to be the only feasible ones not ruled out due to agricultural or other sensitivity constraints.

Following the conference call with Eskom on the 11th of May, it was determined the Vlakfontein Solar PV1, Hormah Solar PV1 and Ratpan Solar PV1 projects were not affected by Eskom's network or expansion plans and no concerns regarding proximity to the Mercury Substation were raised on these projects.

The development footprints of Kleinfontein Solar PV1 and Zaaiplaats Solar PV1 were however, understood to represent an issue for Eskom where there was concern raised over the possible interference with planned 765KV infrastructure as well as constraining the possible future access and future expansion of the Mercury MTS.

As a result of these concerns, Mulilo has agreed to work with Eskom in finding a balanced compromise which is mutually beneficial to both parties. To address Eskom's comments, Mulilo has redesigned the Project Sites to take into account the specific concerns raised by Eskom. This has been accomplished by firstly removing solar plant infrastructure in the planned 765kv corridor, secondly, through limiting construction on the Eastern side of the Mercury MTS to allow possible expansion and potential new powerline servitudes and finally, by incorporating two additional 400kv powerline servitude corridors as no go buffers along the entire southern and eastern sides of the MTS to ensure access to the MTS and potential expansion remain available to Eskom. Please find these amendments illustrated by the areas shaded in orange in Figure 1 below where Kleinfontein Solar PV1 has been reduced by 122 ha and Zaaiplaats Solar PV1 by 14 ha. The location of the laydown areas, BESS area, O&M buildings, diesel storage areas, IPP substations and Eskom switching stations were also adjusted following Eskom's comments to allow for future IPP projects to connect to these projects' satellite/collector switching stations thus growing the Eskom network away from the Mercury MTS and ensuring future IPPs can connect without further adding to the servitude congestion around the Mercury MTS.

Further to the above compromises, Mulilo has agreed that should Eskom provide their written support of the above projects, it would assist Eskom in obtaining the necessary servitude rights required for the 765KV corridor and MTS expansion, over the land parcels which Mulilo have signed and secured as indicated below.



Figure 1: Location of Mulilo's solar PV projects near the Mercury substation.

The adjustments to the site footprint will enable Eskom to comfortably expand its infrastructure around the Mercury Substation. The reduced project footprints of Kleinfontein Solar PV 1 and Zaaiplaats Solar PV1 leaves a corridor that is wide enough for 4 x 400 kV overhead lines (shown in blue) coming from the West, running approximately parallel to the 765 kV Mercury Perseus 1 line and the northern border of Zaaiplaats Solar PV1. The proposed 400 kV lines can then turn back towards the 400 kV busbars at the Mercury Substation. Alternatively, these proposed 400 kV lines can run eastwards parallel to the existing 400 kV Mercury Midas 1 line. The corridor north of Zaaiplaats Solar PV1 will also accommodate Eskom's 2 planned 765 kV lines (shown in turquoise). Figure 2 also shows a proposed 400 kV line running from the Mercury substation in an eastward direction parallel to the 765 kV Mercury Zeus 1 line.

All servitude widths and separation distances between parallel lines were, as a minimum, based off the 2017 Eskom standard "240-125383428 BUILDING LINE RESTRICTIONS, SERVITUDE WIDTHS, LINE SEPARATIONS AND CLEARANCES FROM POWER LINES" which states:

Document Classification: Controlled Disclosure

BUILDING LINE RESTRICTIONS, SERVITUDE WIDTHS,
LINE SEPARATIONS AND CLEARANCES FROM POWER
LINES

Unique Identifier: 240-125383428

Revision: 1

Page: 11 of 23

Table 1: Guidelines for different voltages and requirements

Voltage	Building restriction on each side of centre line	Separation distance between parallel lines
1) All voltage below 22kV	9 meters	12 meters
2) 22 kV	9 meters	12 meters
3) 33kV	11 meters	14 meters
4) 44 kV	11 meters	14 meters
5) 66kV	11 meters	14 meters
6) 88 kV	11 meters	14 to 15 meters
7) 132kV and Delta construction 275kV	18 meters (15.5-20)	15 meters (21-24)
8) 220kV	23.5 meters (19.5-21.0)	32 meters (25m)
9) 275kV (Horizontal)	23.5 meters	32 meters
10) 400kV	27.5 meters (Stayed) (23.5m self-supporting)	35 meters
11) 765kV	40 meters	46 meters

Note: The information above is quoted from the Rights of Way Manual (Module 15979) and the information in brackets, where the two are different and inconsistent, is quoted from the Land Survey Manual.

Furthermore, it is strongly advised that the restriction distances for a particular voltage line not be assumed to be as given above, but that the question be discussed prior to commencing with route planning.

Furthermore, in the context of this document, the following classification applies to the operating voltages shown in Table 1 above:

- 1 to 3 are classified as Distribution Lines (MV),
- 4 to 7 are classified as Sub-transmission Lines (HV), and
- 8 to 11 are classified as Transmission Lines (HV).

Note: Also that the ruling in Eskom is that when two lines of dissimilar voltages are running parallel, the separation distance be defined by the requirement of the higher voltage of the two lines.

The separation distance between parallel lines for 132kV lines of 15m will not be a problem when two monopole 132kV lines run parallel to each other, but could become a problem when a monopole 132kV line runs parallel to a lattice 132kV line.

It should therefore be considered that the 15m separation distance only apply to monopole type construction lines running adjacent to each other.

Larger-distances were used when a discrepancy arose between outcomes of the 11th May Eskom meeting and the above standard to ensure sufficiency space was assigned. The resultant buffers are shown below and in the subsequent layout sketch:

- 765 kV parallel line separation distance : 80 m
- 765 kV line servitude width : 110 m (55 m of each side of centreline)

- 400 kV parallel line separation distance : 35 m
- 400 kV line servitude width : 55 m (27.5 m of each side of centreline)
- 132 kV parallel line separation distance : 15 m
- 132 kV line servitude width : 31 m (15.5 m of each side of centreline)
- Whenever lines with different voltage levels run parallel, the greatest of the separation distances were used.

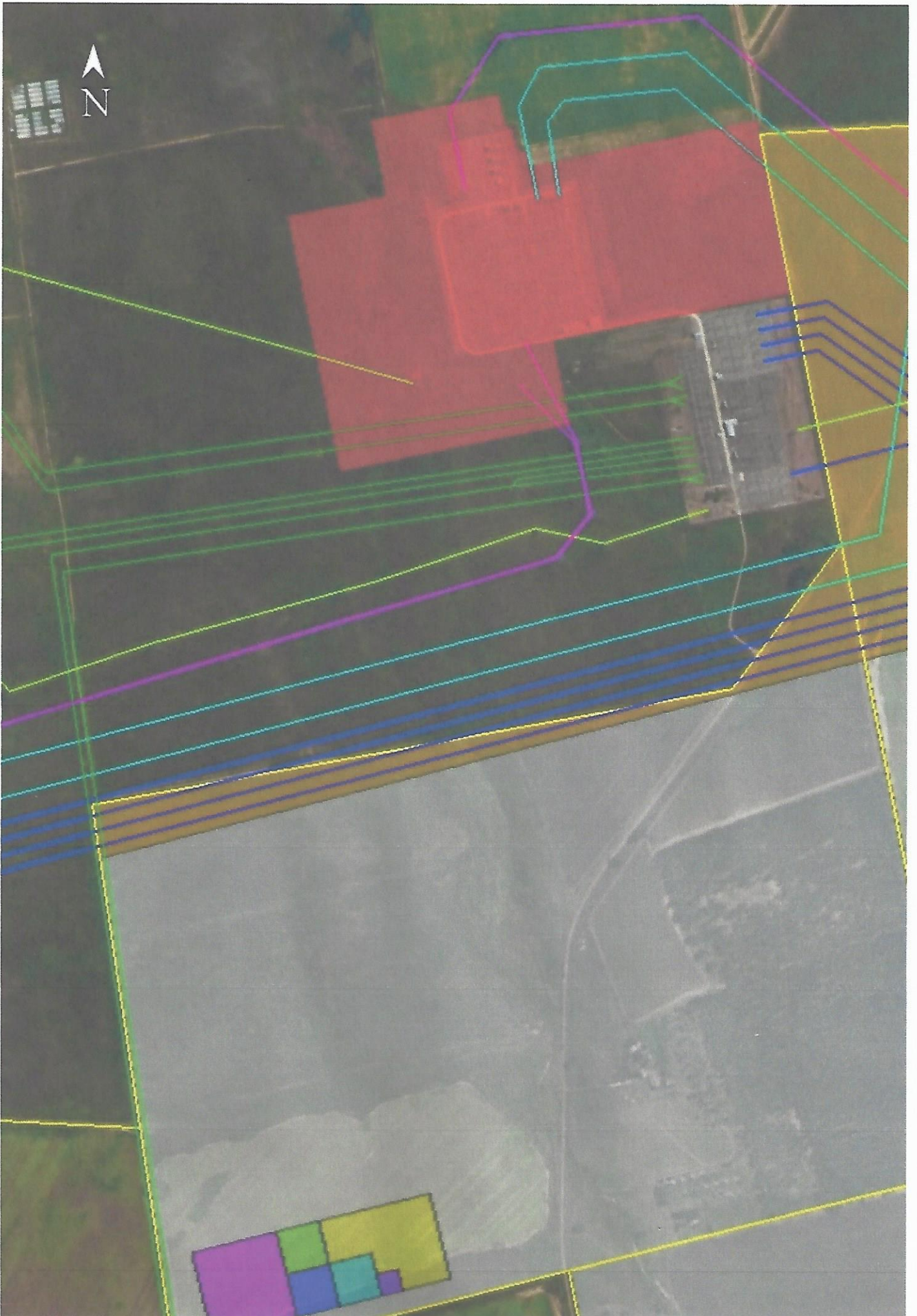


Figure 3 illustrates a possible connection strategy for reducing the number of 132 kV lines running from Mulilo's PV projects directly to the Mercury substation. In this configuration, Zaaiplaats Solar PV1 will act as the collector substation. Ratpan Solar PV1 can connect to the 132 kV busbar at the Hormah Solar PV1 switching station. From there, a 132 kV twin tern line can connect both Hormah Solar PV1 and Ratpan Solar PV1 to the 132 kV busbar at the Zaaiplaats Solar PV1 switching station. Similarly, a 132 kV twin tern line can connect the Vlakfontein Solar PV1 project to the busbar at the Kleinfontein Solar PV1 project (alternatively loop-in-loop-out of the 132 kV line connecting Kleinfontein Solar PV1 to Zaaiplaats Solar PV1). A **double circuit twin tern** 132 kV line can be constructed from the Zaaiplaats Solar PV1 switching station to the Mercury Substation to ensure adequate capacity for all the projects connecting to the collector station.



Figure 3: Connection strategy for Mulilo solar PV projects.

The new location of the Zaaiplaats Solar PV1 substation and switching station also allows for expansion onto neighbouring properties, without negatively impacting the project footprint. This will allow surrounding developers to also connect to this collector station if required, thus addressing Eskom's concerns regarding sterilizing access to the Mercury substation. Please see Figure 4 below where the potential expansion area is shown in brown. A similar approach can easily be followed for expanding the Vlakfontein Solar PV1, Hormah Solar PV1 and Kleinfontein Solar PV1 switching stations.

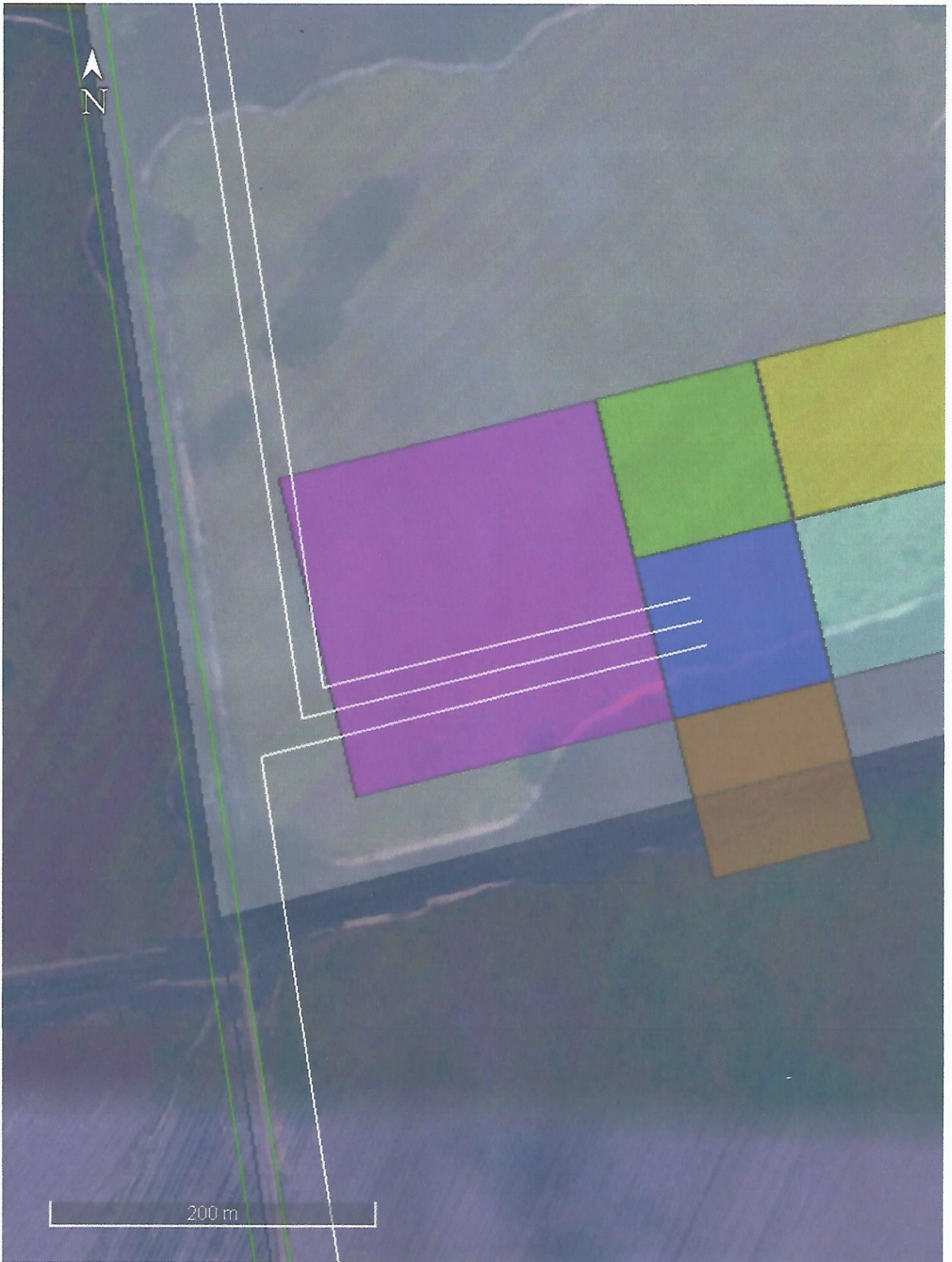


Figure 4: Potential expansion area next to Zaaiploaats Solar PV1 switching station.

Mulilo hereby requests Eskoms written support of the above compromises taken following which it agrees to assist Eskom in obtaining the required servitude rights on the affected land portions which Mulilo has secured the related

land rights. In order to remain within the legislated time frame, Mulilo is required to submit these final layout plans by the 26th of May and therefore urgently requests Eskoms supporting response. Please let us know if you are available for a meeting later this week to discuss the adjustments to the projects, if further explanation is required.

Please forward this email to any relevant parties I did not include in the mailing list.

Kind regards
Johan



Johan Janse van Rensburg | Project Engineer | **Mulilo Renewable Project Developments (Pty) Ltd**

MEng (Industrial) | BEng (Chemical) | PGDip (Sustainable Development) | PGDip (Future Studies)

Tel: +27 21 685 3240 | Email: joan@mulilo.com

Physical: Top Floor, Golf Park 4, Raapenberg Road, Mowbray, 7700

Postal: PostNet Suite #53, Private Bag X21, Howard Place, 7450