PUBLIC PARTICIPATION MEETING

PART 2 ENVIRONMENTAL AUTHORISATION AMENDMENT APPLICATION: 75 MW HUMANSRUS PHOTOVOLTAIC (PV) 1 SOLAR POWER FACILITY

Remainder of Farm 469 Hay RD

DFFE Reference No.: 2022-09-0038; 12/12/20/1903/1/AM2

13 June 2023

17:00-19:00

Refentse Primary School, Groenwater

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PROPOSED AGENDA

- Welcome, introductions & apologies
- Conduct & housekeeping for meeting
- Purpose of the meeting
- Project overview
- Part 2 Environmental Authorisation (EA) Amendment Process
    - Legislative context
    - Public Participation Process
    - EA amendment application history
    - Amendments applied for
    - Specialist reviews and findings
    - Impact summary
    - Motivation/ advantages of amendment
- Questions and discussions
- Way forward
- Closure

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OPENING OF MEETING AND ADMIN

- Welcome and thank you to all attendees
- Meeting rules
- All comments raised will be formally recorded and summarised in the Comments and Responses Report

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PURPOSE OF THE MEETING

- Undertaken in terms of Chapter 6 Public Participation Regulations 39 - 44 of the NEMA EIA Regulations 2014 for a Part 2 EA Amendment Application.
- To inform I&APs and relevant stakeholders on the proposed Part 2 EA Amendment Application.

EARTHnSKY Environmental (EAP)

- Lizette Kloppers (presenter)
- Rachelle Botha (presenter)

Lesedi Power Company (Applicant)

- Thuso Jones (facilitator)
- Odwa Nkcitakalo (applicant representative)
- Mandy Momberg (applicant representative)

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PROJECT OVERVIEW

- **Applicant:** Oakleaf Investment Holdings 79 (RF) (Pty) Ltd.
- **Project name:** Part 2 Environmental Authorisation amendment application for the 75 MW Humansrus Photovoltaic (PV) 1 Solar Power Facility (referred to as Lesedi Power Facility)
- **Project location:** Remainder of Farm 469 Hay RD
- **Environmental Assessment Practitioner (EAP):** EARTHnSKY Environmental (Pty) Ltd.
- **Environmental Authorisation (EA)**: (12/12/20/1903/1) (valid and current)

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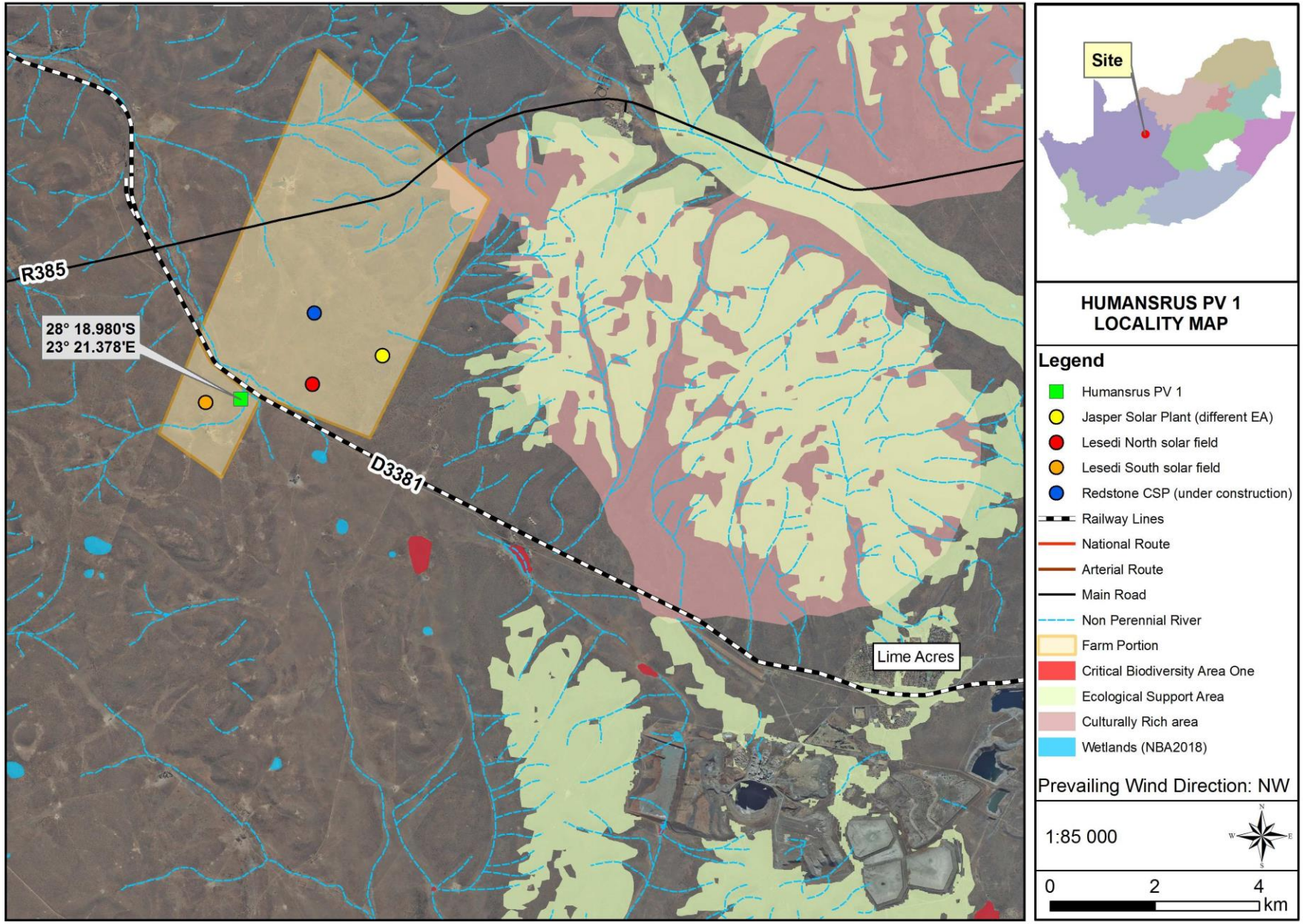
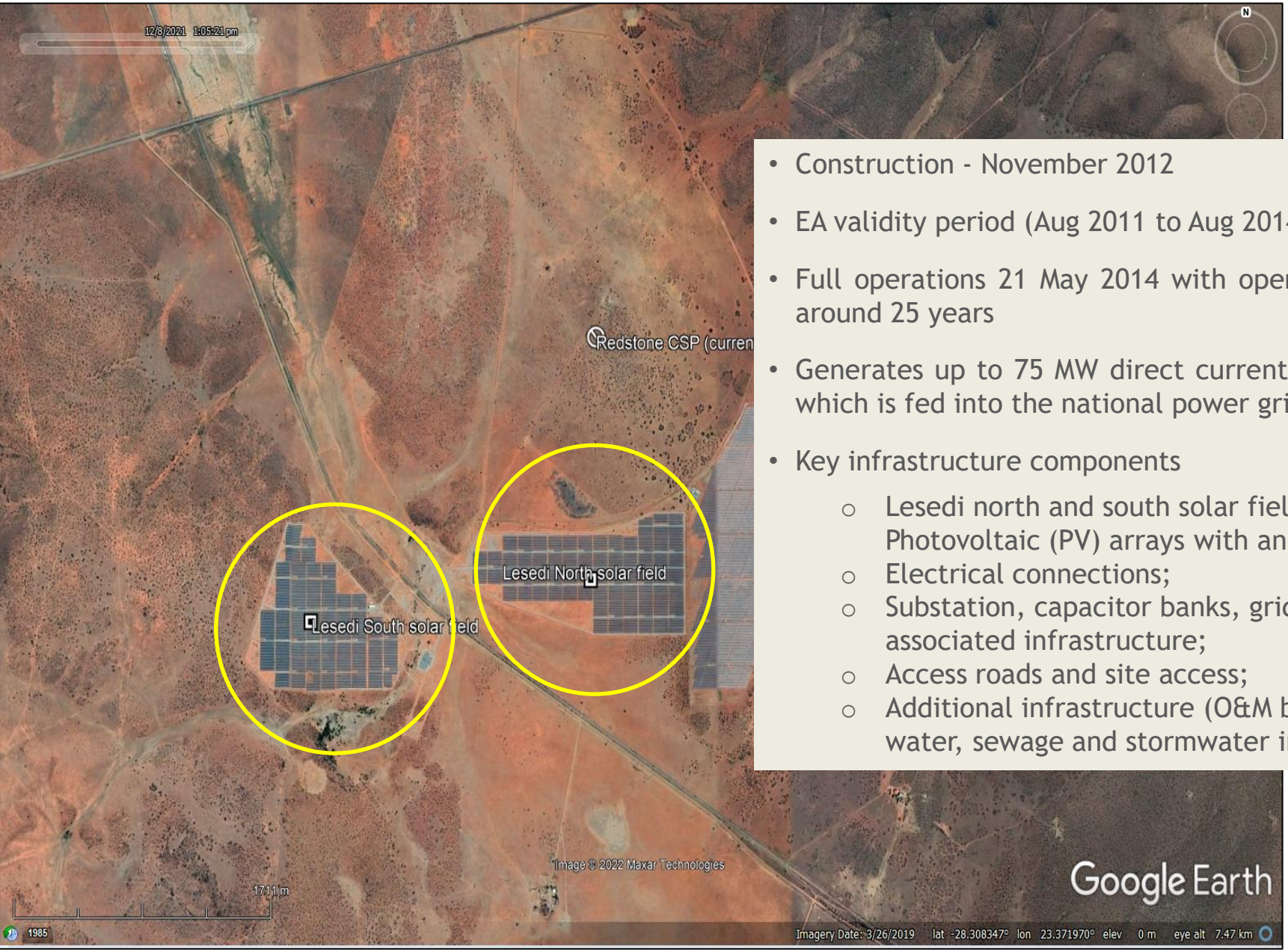
PROJECT OVERVIEW



PROJECT OVERVIEW



- Construction - November 2012
- EA validity period (Aug 2011 to Aug 2014)
- Full operations 21 May 2014 with operational lifespan of around 25 years
- Generates up to 75 MW direct current (DC) of electricity which is fed into the national power grid
- Key infrastructure components
    - Lesedi north and south solar fields with fixed Photovoltaic (PV) arrays with an output of 64MW_{AC};
    - Electrical connections;
    - Substation, capacitor banks, grid connection and associated infrastructure;
    - Access roads and site access;
    - Additional infrastructure (O&M buildings, waste, water, sewage and stormwater infrastructure etc).

LEGISLATIVE CONTEXT

National Environmental Management Act (NEMA) Act no. 107 of 1998 (as amended)

- Environmental Impact Assessment (EIA) Regulations (as amended) Section 31 (Part 2 Amendment Application): Valid EA where such change will result in an increased level or change in the nature of impact where such level or change in the nature of the impact was not assessed / taken into consideration in the initial application
- Note: The proposed changed does not its own constitute a listed activity.
- Report compiled in terms of the requirements of Section 32 of the EIA Regulations

National Environmental Management Waste Act (NEM:WA) Act no. 58 of 2004

- Norms and Standards (N&S): Storage of Waste (Government Notice No. 926 of 29 November 2013) – for temporary storage of PV waste modules

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LEGISLATIVE CONTEXT – PROCESS OVERVIEW

Pre-Application meeting with CA

Specialist Assessments

We are here

Compile Draft EIR and OEMP as per Section 32

Public Participation Process (PPP) – 30 days

Final EIR and OEMP submit to CA – 90 days

Decision on the Amendment Application by CA – 107 days

Notify I&APs on Decision on the Amendment Application by CA

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PUBLIC PARTICIPATION PROCESS

- Undertaken in terms of Chapter 6 Public Participation Regulations 39 - 44 of the NEMA EIA Regulations 2014 (as amended)

- Public Participation Process and stakeholder engagement to date:

    - Pre-consultation meeting with Department of Forestry, Fisheries and Environment (DFFE), the Competent Authority (CA), - 14 October 2022

    - Interested and Affected Parties (I&APs) identification. I&APs from the original NEMA EIA 2011 Application, as well as relevant Competent Authorities and Organs of State were added to the I&AP Register

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PUBLIC PARTICIPATION PROCESS

- Hardcopies of Draft EIR, OEMP and supporting documentation are available for review at:
  - Lesedi Power Facility
  - Postmasburg Library
- Site notices were erected and newspaper advertisements were placed:
  i. Beeld newspaper on 25 May 2023;
  ii. Noordkaapbulletin on 25 May 2023;
  iii. Kathu Gazette newspaper on 19 May 2023.
- A public meeting held at the Refentse Primary School: 13 June 2023 @17:00

- To date, no formal comments have been received from I&APs.

- All comments and responses will be recorded and included in the final EIR and OEMP to CA.

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EA AMENDMENT APPLICATION HISTORY

Date issued	EA reference	Holder of the EA	Notes and status
29/08/2011	12/12/20/1903	Intekon Energy (160MW)	Issued. In response, due to Eskom's restrictions in terms of the Renewable Energy Independent Power Producer (IPP) Procurement Programme an amendment application was lodged to split the 160 MW Humansrus Solar Power Farm into two separate 75 MW solar facilities (for Lesedi- and Jasper Power Projects - 75MW, respectively Humansrus 1 and Humansrus 2).
23/02/2012	12/12/20/1903/1	Intekon Energy (75MW)	Issued. In response, an EA amendment to amend the holder / ownership of the EA to Oakleaf Investments (Lesedi Power Company) was applied for.
11/07/2012	12/12/20/1903/1	Oakleaf Investments (75MW)	Issued. In response, an EA amendment application process was commenced by ERM (previous EAP). However, this application was never completed and the Public Participation Process (PPP) was not undertaken as it was confirmed that approval was first required for Section 21 (c)&(i) water uses in terms of the National Water Act, 1998.
	12/12/20/1903/1AM3	Oakleaf Investments (75MW)	Initial application to amend the EA submitted in 2017, but the process was suspended until the water use authorizations were obtained from DWS.

CURRENT ENVIRONMENTAL AUTHORISATION

-as described in the EnvironmentalImpactReport (EIR) dated January 2012at:

Location of Activity	Latitude	Longitude
Location of Humansrus PV 1	28°18'58.81"S	23°21'22.71"E

- for the construction of the 75 MW Humansrus Photovoltaic (PV) 1 Solar Power Facility on the farm Humansrus (Farm 469) within the Tsantsabane Local Municipality, in the Siyanda District Municipality, Northern Cape Province, hereafter referred to as "the property".

The key components of the proposed solar power facility include the following:

a) PV solar panels that will occupy up to 150 ha (1.5 km^2) of the site area in total;
b) 280 000 solar panels;
c) The panels will be 15m^2 in size and will be mounted on metal frames with a maximum height of 3m above ground;
d) The PV arrays will be 1 km in length and made up of approximately 100 m sections;
e) Internal electrical collection systems which includes inverters connected to each PV array to convert the direct current (DC) to alternate current (AC);
f) A new substation which would include a control room, an operations and maintenance facility, parking, external 132kV transformers and electric switch gear and will have a footprint of up to 1,000m^2 in size;
g) An access to the site via the R385 or DD381 roads;
h) Access tracks adjacent to each row of the PV array plus tracks between the other components of the development. Site access roads of up to 6 m wide with drainage trenches adjacent to the road;
a) Additional Infrastructure that will form part of the development will include:
   - A permanent solar irradiation panel (approximately 16m^2 in size) will be erected to collect data on the solar resource of the site.
   - A small office and storage building with security and ablution facilities.
   - Site fencing of 2.5m in height.
   - A lay-down area for temporary storage of materials during the construction activities and a small borrow pit on site.

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CURRENT ENVIRONMENTAL AUTHORISATION

The current EA for the 75 MW Humansrus Photovoltaic (PV) 1 solar power facility (referred to as Lesedi Power Company) includes the following listed activities:

GN R. 387:

- Item 1(a)(i): The construction of facilities or infrastructure, including associated structures or infrastructure, for the **generation of electricity** where electricity output is **20 megawatts or more**.
- Item 1(a)(ii): The construction of facilities or infrastructure, including associated structures or infrastructure, for the **generation of electricity** where the elements of the facility cover a combined **area in excess of 1 hectare**.
- Item 1(l): The **transmission and distribution of above ground electricity** with capacity of **120 kilovolts or more**.
- Item 2: Any development activity, including associated structures and infrastructure, where the **total area of the developed area** is, or is intended to be, **20 hectares or more**.

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CURRENT ENVIRONMENTAL AUTHORISATION

GN R. 386:

- Item 1(m): The construction of **facilities or infrastructure**, including associated structures or infrastructure, for any purpose **in the one in ten year flood line** of a river or stream, **or within 32m from the back of a river or stream** where the flood line is unknown, excluding purposes associated with existing residential use, but including (i) canals; (ii) channels; (iii) bridges; (iv) dams; and (v) weirs.
- Item 12: The **transformation or removal of indigenous vegetation** of **3 hectares or more** or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
- Item 16(b): The **transformation of undeveloped, vacant or derelict land** to **residential, mixed, retail, commercial, industrial or institutional use** where such development does not constitute infill and where the total area to be transformed is **bigger than 1 hectare**.

- The listed activities included in the existing EA cover the amendments to be applied for. No additional listed activities are triggered.

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AMENDMENTS CONTEXT – HOLDER DETAILS

	Amendment applied for	Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
1.	Confirmation of the change of the contact person for Oakleaf Investment Holdings 79 (RF) (Pty) Ltd. (Trading as Lesedi Power Company (Pty) Ltd.).	Holder of EA and contact person and details.	None.

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AMENDMENTS CONTEXT – SUBSTATION AND ASSOCIATED INFRASTRUCTURE

	Amendment applied for	Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
2.	To amend the size and location of the substation, and indicate that the substation area comprises a control room, external 132kV transformers, electric switchgear, capacitor banks and is fenced for security and safety.	**Authorised Infrastructure**: ***f*** *- "A new Substation which would include a control room, and operations and maintenance facility, parking, external 132KV transformers and electronic switchgear and will have a footprint of up to 1000m² in size"*	Heritage Fauna Vegetation Visual Paleontological Aquatic

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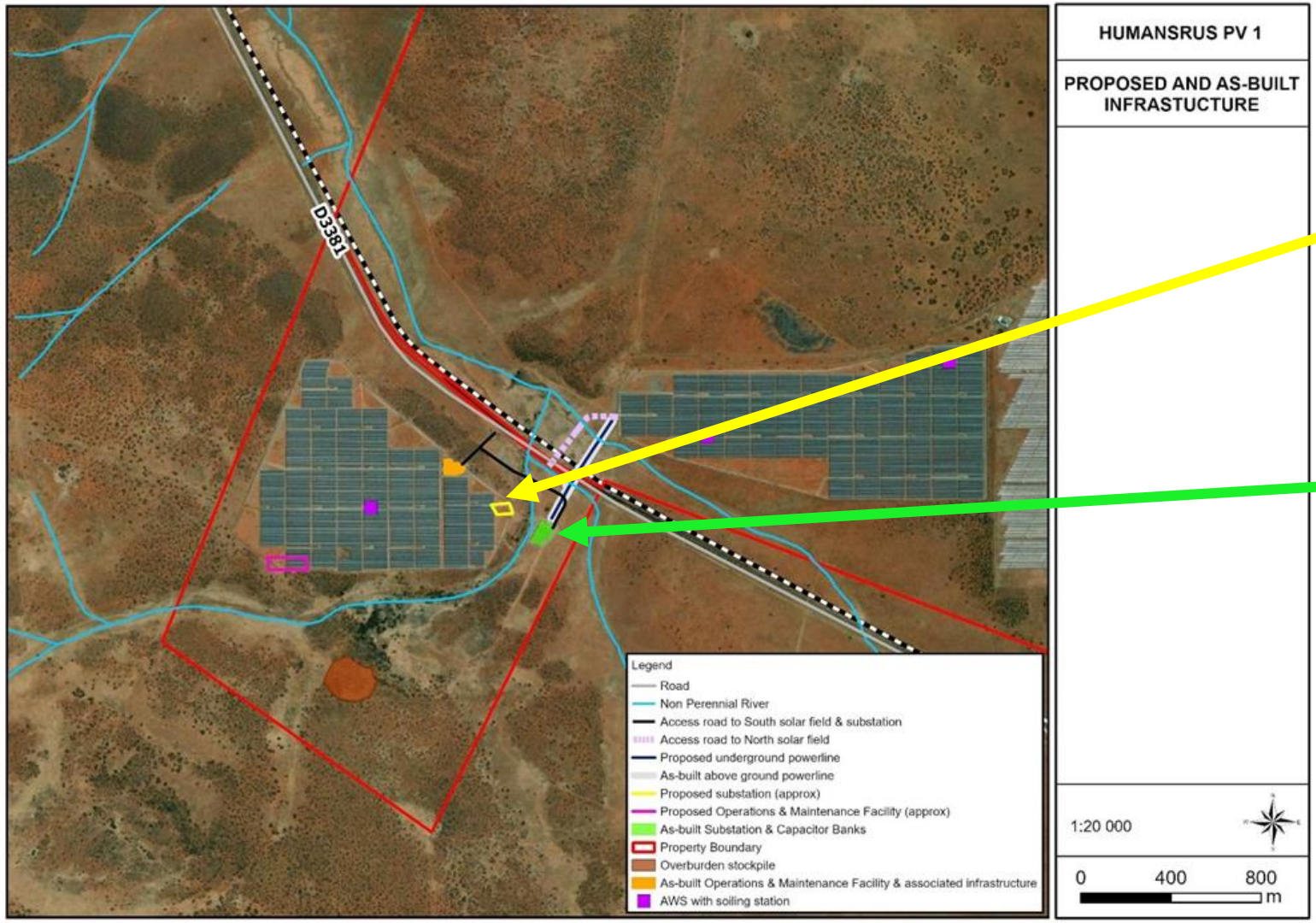
AMENDMENTS CONTEXT – SUBSTATION AND ASSOCIATED INFRASTRUCTURE



Proposed location

As-built location

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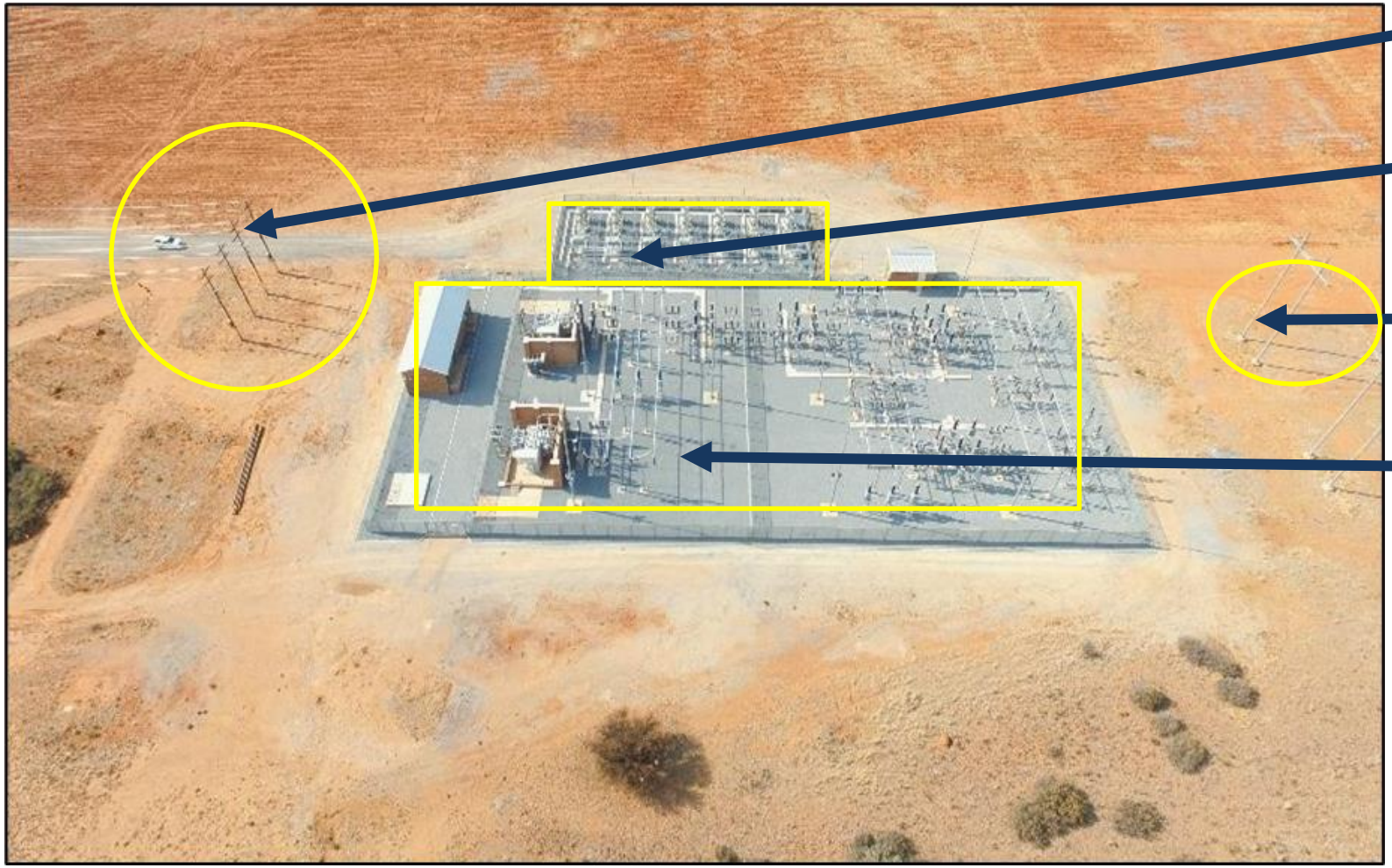
AMENDMENTS CONTEXT – SUBSTATION AND ASSOCIATED INFRASTRUCTURE



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AMENDMENTS CONTEXT – SUBSTATION AND ASSOCIATED INFRASTRUCTURE

Capacitor banks located to on the east of the substation

Substation with secure fencing and access control as approved by Eskom

Grid connection into Eskom 132kV overhead powerline

Eskom 132kV overhead powerline running to the south west away from the substation

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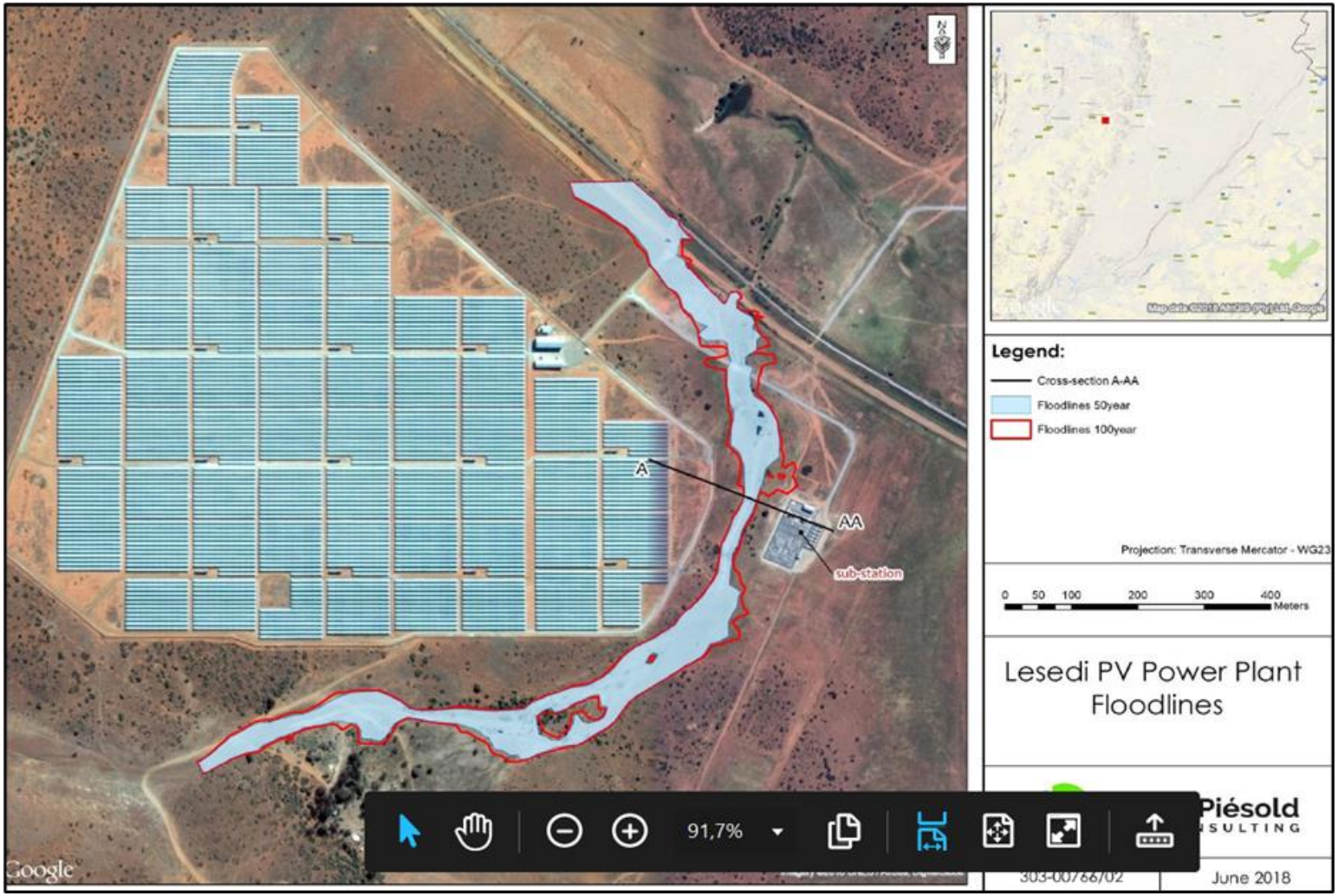
AMENDMENTS CONTEXT – SUBSTATION AND ASSOCIATED INFRASTRUCTURE



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AMENDMENTS CONTEXT – O&M AND ASSOCIATED INFRASTRUCTURE

Amendment applied for		Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
3.	To indicate the location of the Operations and Maintenance (O&M) buildings, and to show this consists of an office and storage buildings, security, ablution facilities, parking, outdoor storage area and water treatment facility.	**Authorised Infrastructure: *f*** - *"A new Substation which would include a control room, and operations and maintenance facility, parking, external 132KV transformers and electronic switchgear and will have a footprint of up to 1000m² in size"* **Authorised Infrastructure: *i*** - *"Additional infrastructure that will form part of the development will include:* - *A permanent solar irradiation panel (16m² in size) to be erected to collected data on the solar resource of the site;* - *A small office and storage building with security and ablution facilities;* - *Site fencing of 2,5m in height;* - *A laydown area for temporary storage of materials during the construction activities and a small borrow pit on site.*	Heritage Fauna Vegetation Visual Paleontological

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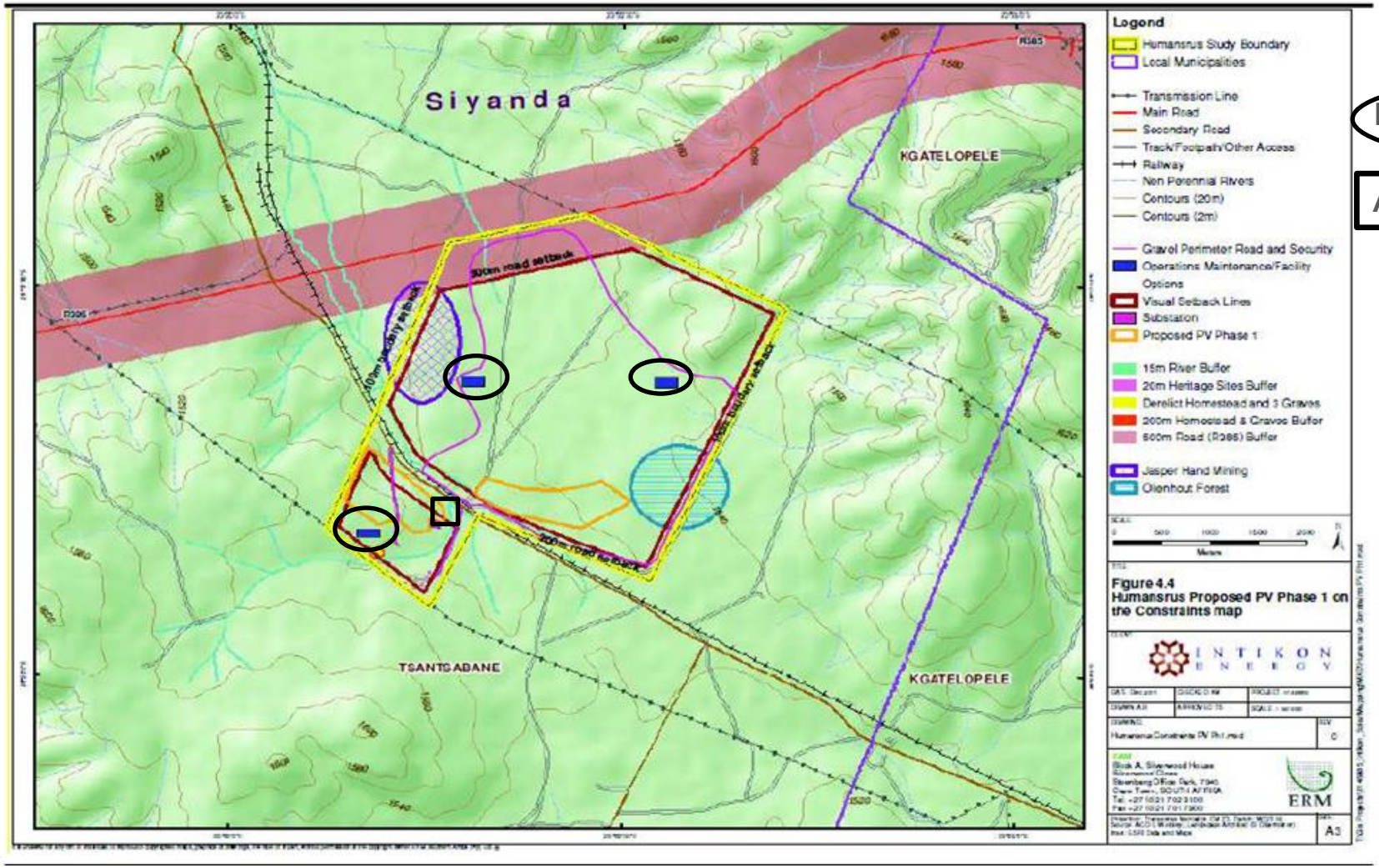
AMENDMENTS CONTEXT – O&M AND ASSOCIATED INFRASTRUCTURE



Proposed locations

As-built location

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AMENDMENTS CONTEXT – O&M AND ASSOCIATED INFRASTRUCTURE

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AMENDMENTS CONTEXT – O&M AND ASSOCIATED INFRASTRUCTURE

Offices and parking area

Operations and maintenance warehouse

Access control to O&M buildings

Outdoor store with WTP and water storage infrastructure

Site access control office with fencing. Waste separation evident on site

Authorised Sewage Treatment Plant (STP)

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AMENDMENTS CONTEXT – 22kV POWERLINES AND VISUAL BUFFERS

Amendment applied for		Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
4.	To include the aboveground 22kV powerline connecting the northern solar field to the substation – across railway line and D3381 road.	**Authorised Infrastructure**: ***f*** *- "A new Substation which would include a control room, and operations and maintenance facility, parking, external 132KV transformers and electronic switchgear and will have a footprint of up to 1000m² in size"* By default, Condition 32 indicates that above-ground electrical infrastructure was considered during the initial authorization as it indicates: "...all pylons and power lines associated with the proposed development …(to) comply with the "bird friendly" design…"	Heritage Vegetation Visual Paleontological Aquatic
5.	Removal of the 200m and 50m visual buffers for the aboveground 22kV powerlines.	**Condition 29**: *"….a 200m visual buffer must be maintained from the D3381 secondary road…"* **Condition 30**: *"A 50m buffer must be maintained from the railway line".*	Visual

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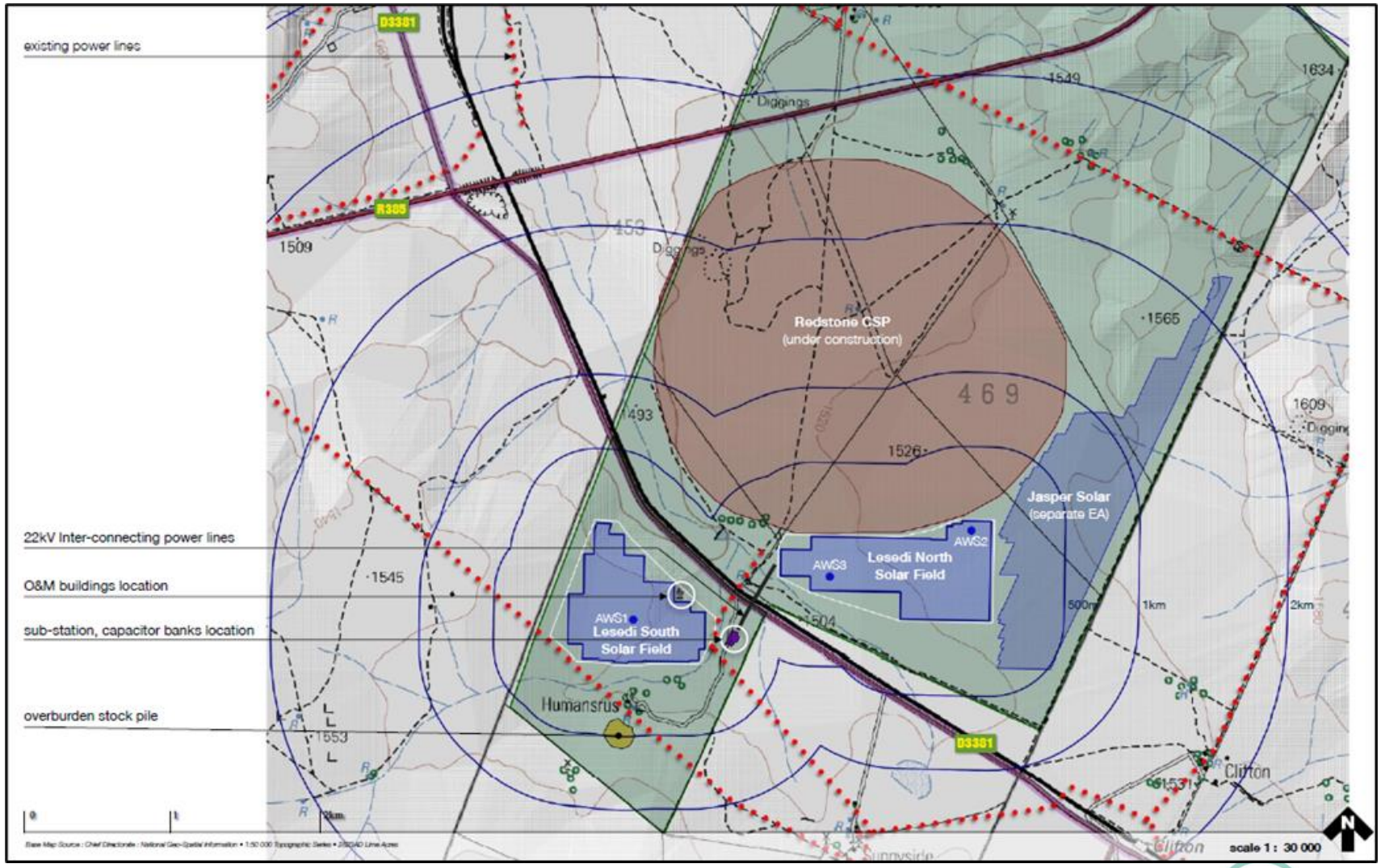
AMENDMENTS CONTEXT – 22kV POWERLINES AND VISUAL BUFFER



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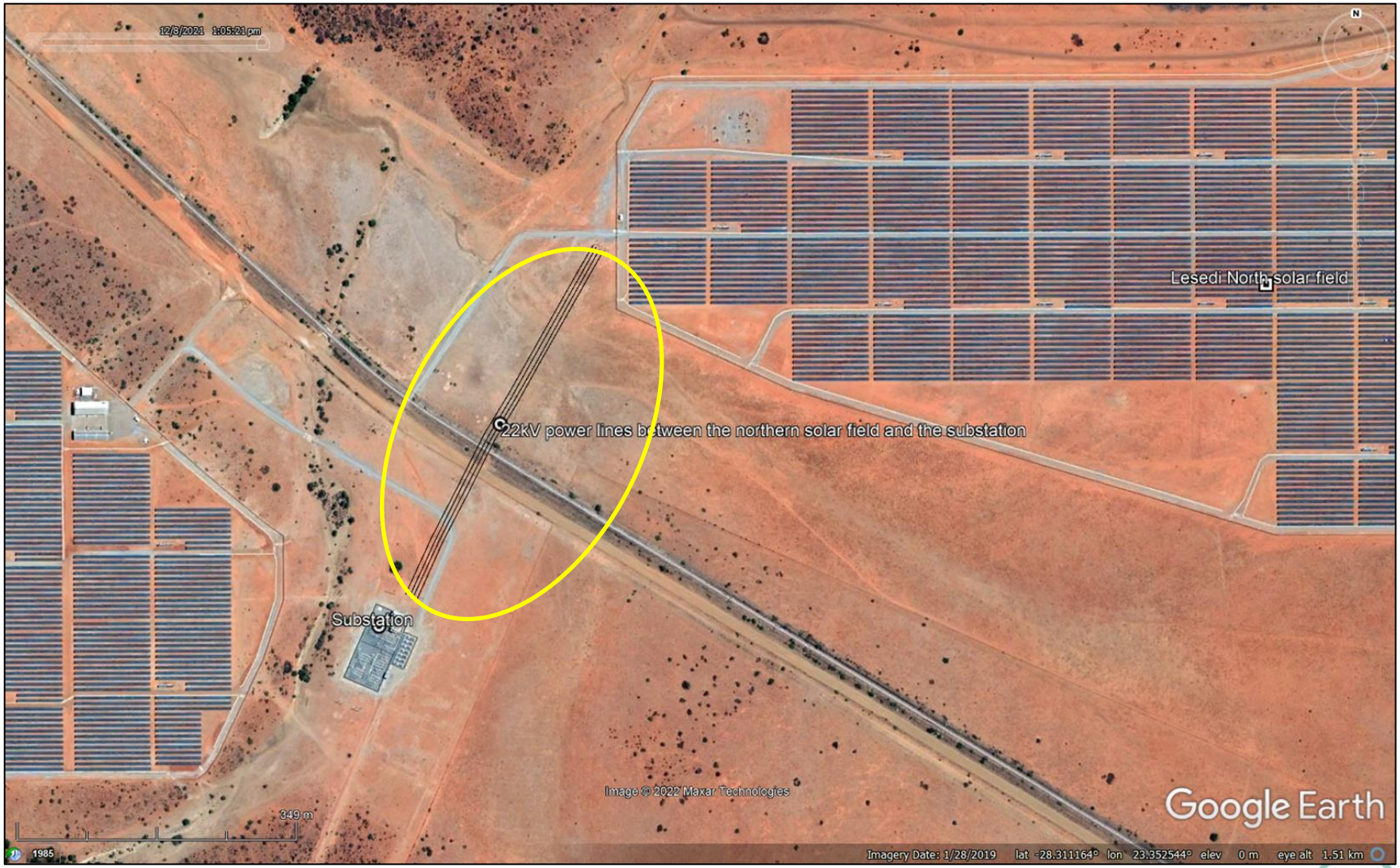
AMENDMENTS CONTEXT - 22kV POWERLINES AND VISUAL BUFFER



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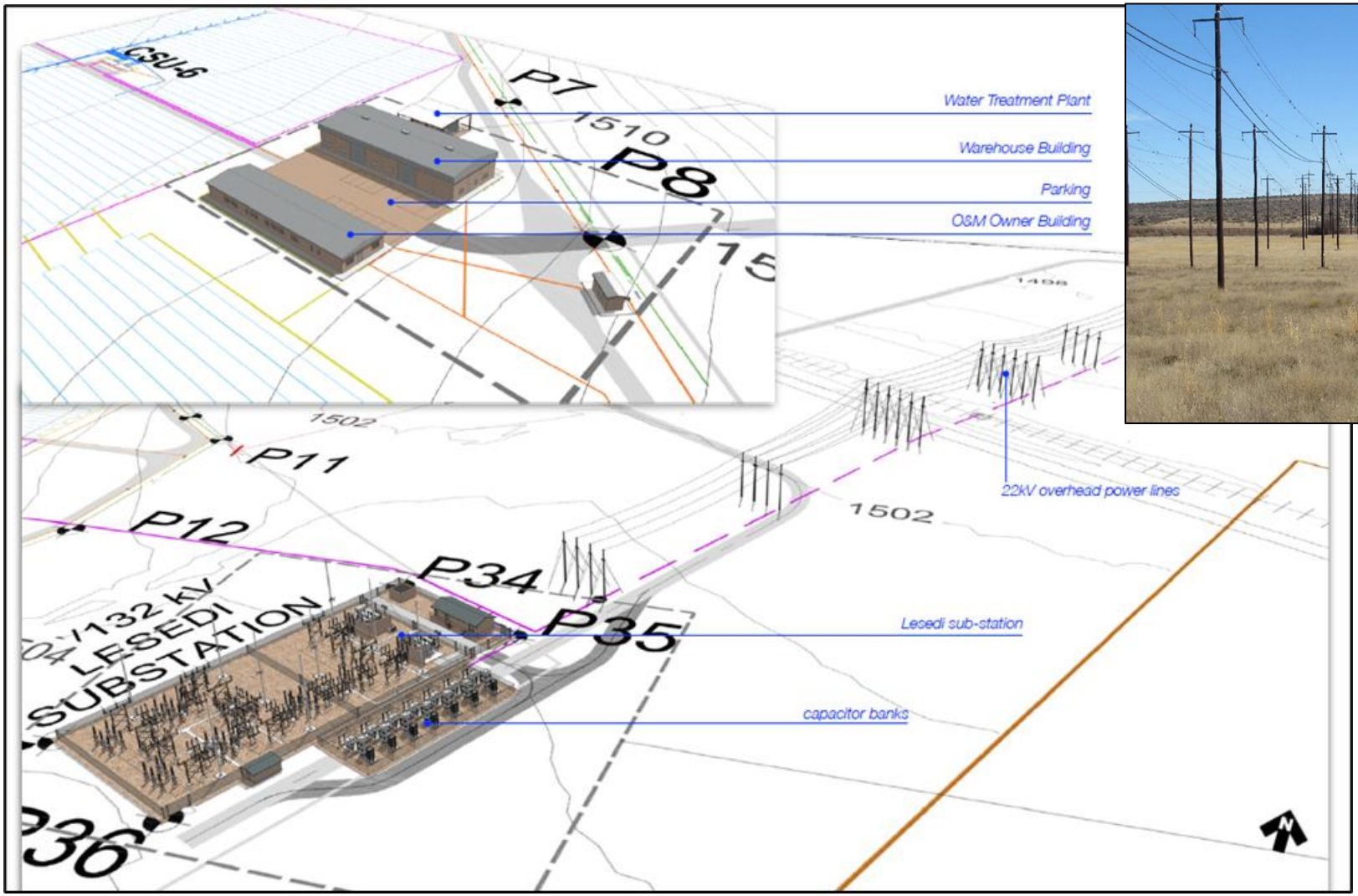
AMENDMENTS CONTEXT – 22kV POWERLINES AND VISUAL BUFFER



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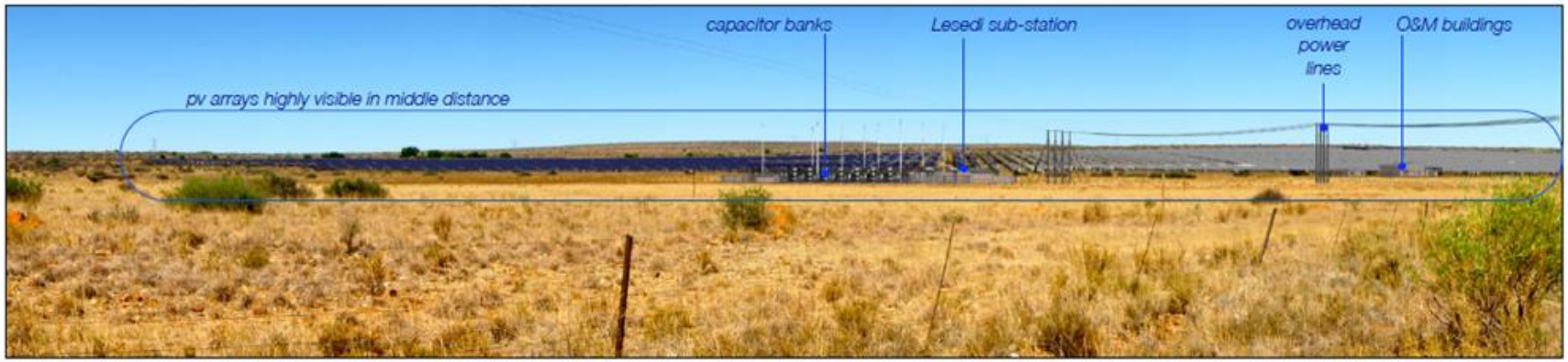
AMENDMENTS CONTEXT – 22kV POWERLINES AND VISUAL BUFFER



Viewpoint G4 • looking west from D3381
28.8175S, 23.9618E • 21/11/2010 • 08h52
distance to nearest pv array : 625m
distance to capacitor banks/sub-station : 393m

Viewpoint G5 • looking west from D3381 at Sunnyside turnoff
28.8208S, 23.9678E • 21/11/2010 • 08h53
distance to nearest pv array : 1.24km
distance to capacitor banks/sub-station : 1.05km

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AMENDMENTS CONTEXT – PV ARRAYS

	Amendment applied for	Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
6.	To show that the PV arrays of up to 1km in length across the south solar field and up to 1,5km in length across the north solar field, made up of approximately 100m sections.	**Authorised Infrastructure**: ***a*** - *"The PV arrays will occupy 150 ha /1,5km^2 of the site area in total".* **Authorised Infrastructure**: ***d*** - *"The PV arrays will be 1km in length and made up of approx. 100m sections"*	Visual Heritage Paleontological

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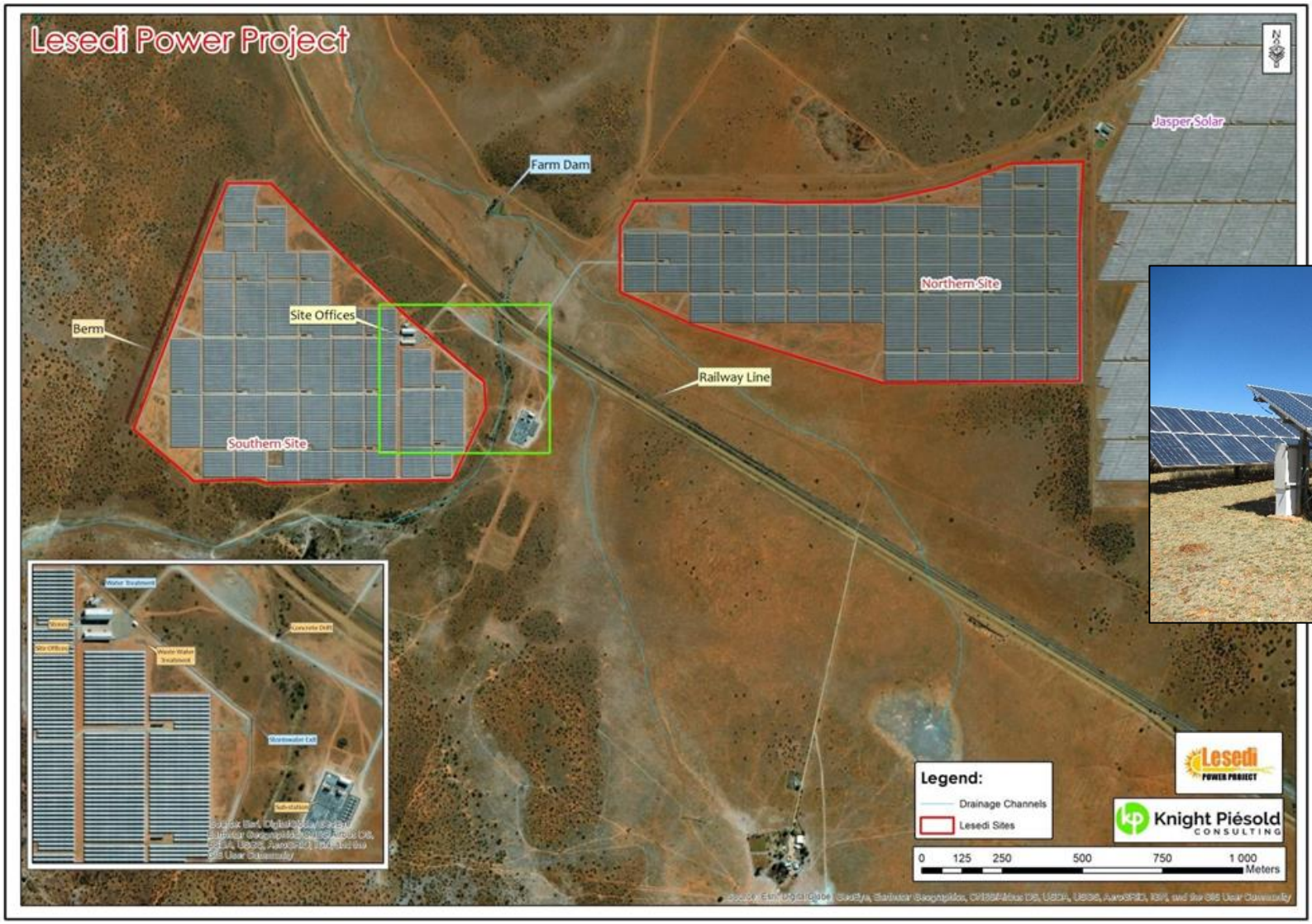
AMENDMENTS CONTEXT – PV ARRAYS



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AMENDMENTS CONTEXT – WASTE MODULE STORAGE

	Amendment applied for	Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
7.	To accommodate the temporary storage of up to 300 waste solar PV modules on site, in compliance with the 2013 Norms and Standards for the Storage of Waste (NEM:WA 59 of 2008).	Condition 36 of the EA requires an integrated waste management approach to be implemented and compliance with relevant legislation. The National Norms and Standards for the Storage of Waste, 2013 as per the National Environmental Management Waste Act Regulations govern the temporary storage of waste PV modules. The Applicant shall continue to ensure compliance with respective and relevant legislation & Condition 36 of the EA making reference to integrated waste management and compliance on site. In this case, the Applicant must ensure compliance for the temporary storage of the waste PV modules as required in terms of the National Norms and Standards for the Storage of Waste, 2013) as per the National Environmental Management: Waste Act Regulations.	Waste

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AMENDMENTS CONTEXT

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AMENDMENTS CONTEXT – WASTE MODULE STORAGE

The waste PV modules removed from the facility to date include:

- 15-Feb-2018 220 panels
- 26-Nov-2020 119 panels
- 09-Dec-2021 240 panels
- 24-Oct-2022 273 panels

❑ N&S application to be submitted

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AMENDMENTS CONTEXT – OVERBURDEN STOCKPILE AND AUTHORISED FOOTPRINT

<table>
<tr><th>Amendment applied for</th><th>Relevance to EA (12/12/20/1903/1) / condition</th><th>Potential impact relevance</th></tr>
<tr><td>8.</td><td>To align the authorised development footprint with the farm boundary, to accommodate the overburden stockpile, and to indicate that a small borrow pit on site was not needed during the construction phase, as excess overburden was used for filling.</td><td>Condition 4: “The activities authorised may only be carried out at the property as described on page 4 of this authorisation, namely:

The proposed Lesedi Solar Power Farm is hereby approved – as described in the EIR Report dated January 2012 at:
<table>
<tr><td>Location</td><td>Latitude</td><td>Longitude</td></tr>
<tr><td>Humansrus PV1</td><td>28°18’58.81”S</td><td>23°21’22.71”E</td></tr>
</table>
- For the construction of a 75MW PV1 Solar Facility (Lesedi power Company), covering an area of 150ha (1,5m²), on part of the Farm Humansrus (Farm 469) within the Tsanstabane Local Municipality, Northern Cape Province”.

Authorised Infrastructure: i - “Additional infrastructure that will form part of the development will include:
- A permanent solar irradiation panel (16m² in size) to be erected to collected data on the solar resource of the site;
- A small office and storage building with security and ablution facilities;
- Site fencing of 2,5m in height;
- A laydown area for temporary storage of materials during the construction activities and a small borrow pit on site.</td><td>Heritage
Fauna
Vegetation
Visual
Paleontological
Aquatic</td></tr>
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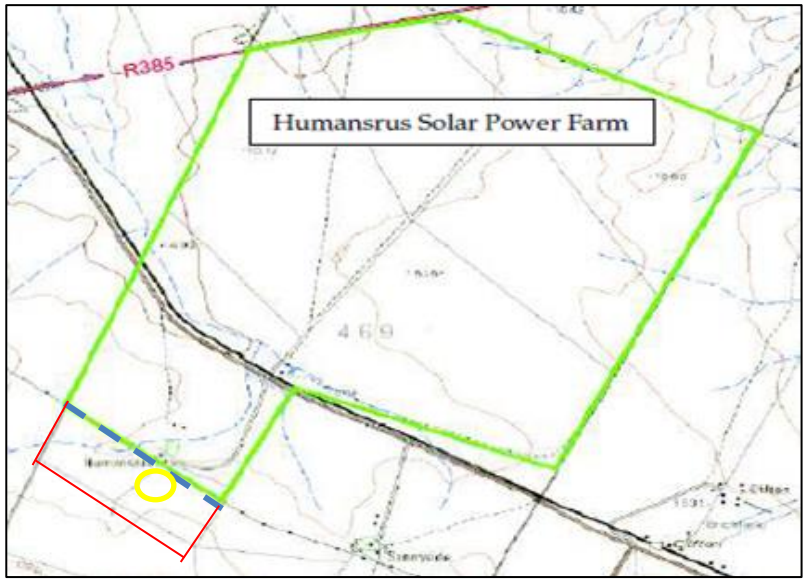
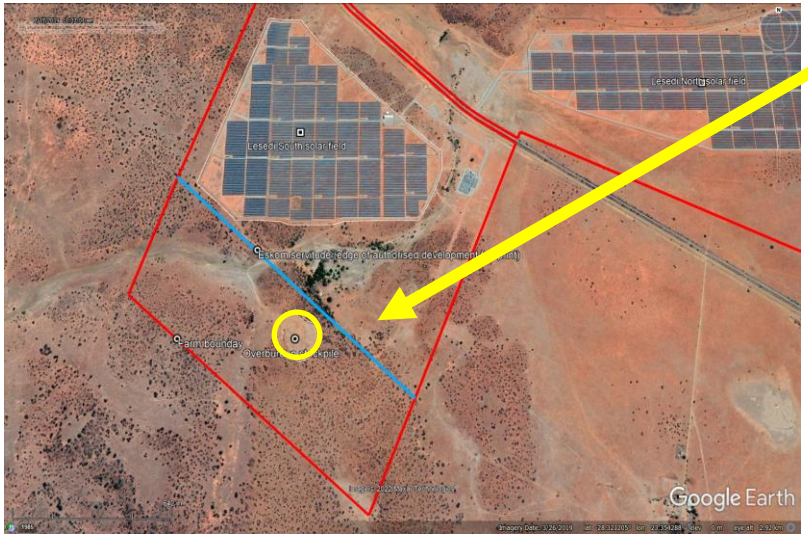
AMENDMENTS CONTEXT – OVERBURDEN STOCKPILE AND AUTHORISED FOOTPRINT



- A small borrow-pit that was approved as per EA was not required during the construction phase; and
- Surplus material (topsoil and overburden) excavated for foundations was used, where needed, and excess overburden was stored in an area as agreed with the Landowner



- Overburden location (yellow circle)
- Authorised footprint (green polygon)
- Property boundary (red lines)
- Blue line (Eskom transmission line (blue dash-line)

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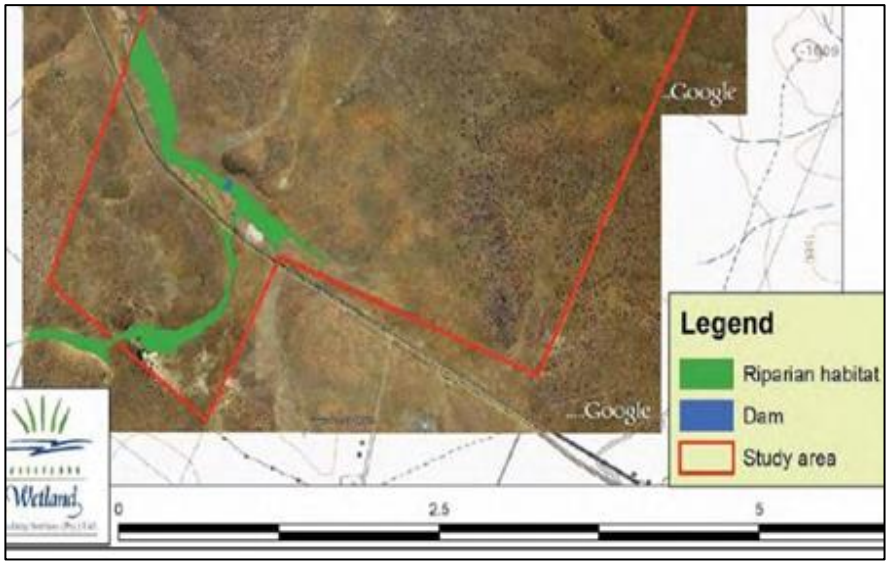
AMENDMENTS CONTEXT – OVERBURDEN STOCKPILE AND AUTHORISED FOOTPRINT



- No impacts envisaged – stockpile located out of the floodlines & riparian habitat

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AMENDMENTS CONTEXT – AWS AND SOILING STATIONS

Amendment applied for		Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
9.	To indicate that a solar irradiation measuring panel was in place during the feasibility stage, to collect data on the solar resource which information the layout of the facility, but is not permanent, and was removed prior to the commencement of operations.	**Authorised Infrastructure:** ***i*** *- "Additional infrastructure that will form part of the development will include:* - *A permanent solar irradiation panel (16m² in size) to be erected to collected data on the solar resource of the site;* - *A small office and storage building with security and ablution facilities;* - *Site fencing of 2,5m in height;* - *A laydown area for temporary storage of materials during the construction activities and a small borrow pit on site.*	None.
10.	To include three autonomous weather stations (AWS), approx. 4m in height installed for the continuous monitoring of local conditions during the operational phased, and three soiling stations, measuring approx. 4m² in size each, to monitor and determine operational efficiencies.	**Authorised Infrastructure:** ***i*** *- "Additional infrastructure that will form part of the development will include:* - *A permanent solar irradiation panel (16m² in size) to be erected to collected data on the solar resource of the site;* - *A small office and storage building with security and ablution facilities;* - *Site fencing of 2,5m in height;* - *A laydown area for temporary storage of materials during the construction activities and a small borrow pit on site".*	None.

AMENDMENTS CONTEXT – AWS AND SOILING STATIONS

Example of AWS installed in Lesedi south & north solar fields

Soiling station installed to monitor and determine operational efficiencies in Lesedi south solar field

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AMENDMENTS CONTEXT – ASBUILT APPROVAL AS LAYOUT PLAN

	Amendment applied for	Relevance to EA (12/12/20/1903/1) / condition	Potential impact relevance
11.	Approval of the as-built drawings and layout plans for the entire operation.	**Condition 1**: "*The construction of the 75MW PV1 Solar Power Plant on 150ha of land on the farm Humansrus (Farm 469), using the Humansrus Proposed PV Phase 1 Layout Map is approved".* **Condition 4**: *"The activities authorised may only be carried out at the property as described on page 4 of this authorisation, namely:*	Heritage Fauna Vegetation Visual Paleontological Aquatic

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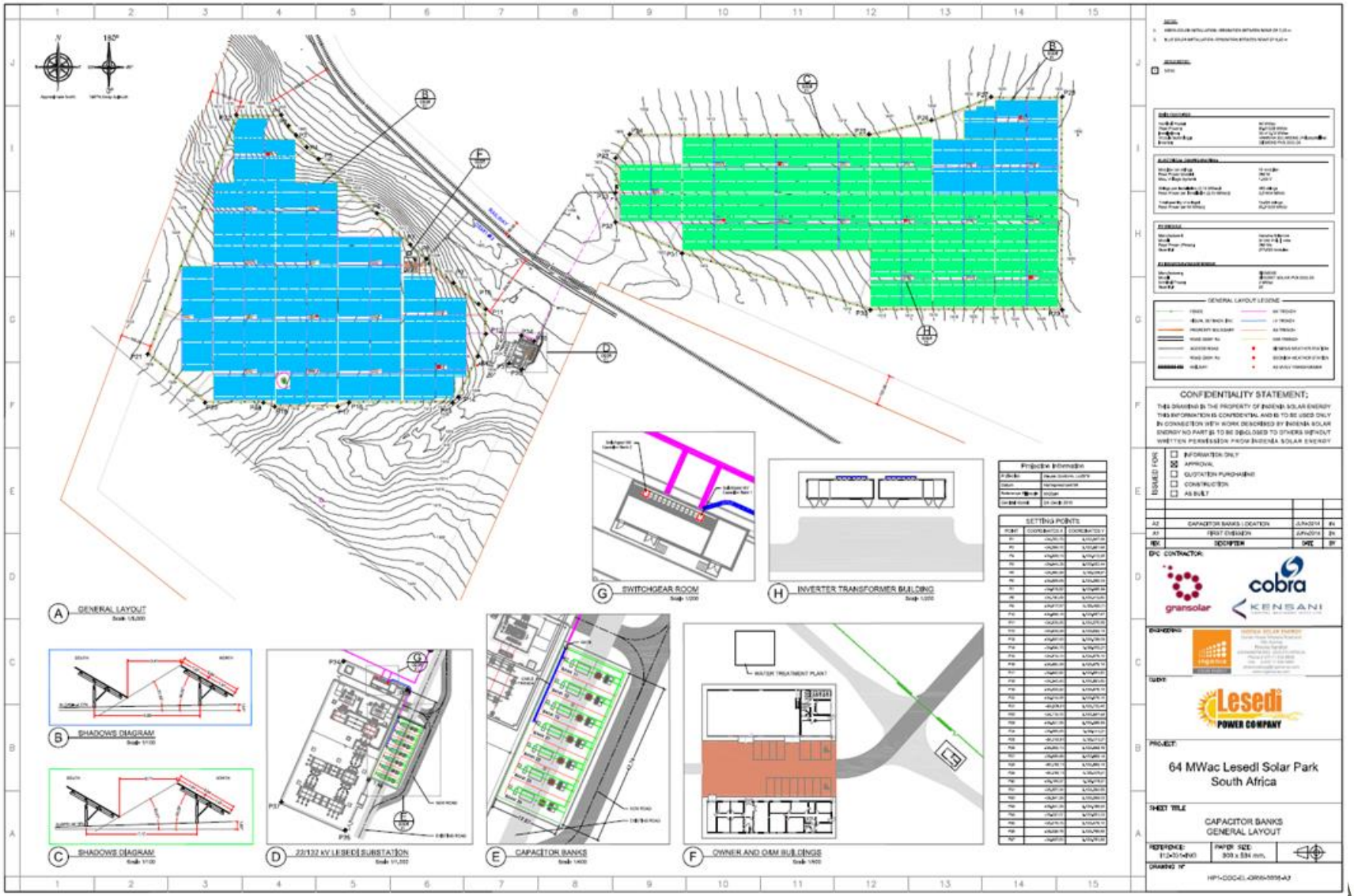
AMENDMENTS CONTEXT – ASBUILT APPROVAL AS LAYOUT PLAN



SPECIALISTS REVIEWS AND FINDINGS

- **Visual**
- **Palaeontological**
- **Heritage**
- **Ecological – Fauna**
- **Ecological – Vegetation**

SoW included:

- Review of findings and impact assessment as per the initial specialist assessments undertaken as part of the original application and EA issued;
- Determine and assess the possible impacts of significance, specifically in relation to the various amendments to be applied for (particularly to the localities and sizes of specific infrastructures, property boundary etc.); and
- Review and update of any mitigation and management measures (if any) for inclusion into the Operational Environmental Management Programme (OEMP) (if required).

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SPECIALISTS FINDINGS

Visual review and statement

- None of the amendments relating to the as-built project would have any significant visual implications when seen in the context of the overall Humansrus PV 1 Solar Power Project and the Redstone Concentrated Solar Plant (CSP) project (under construction) to the north of the Lesedi north- and south solar fields;
- The overall visual impact significance for the project is therefore not expected to change from that of the authorised layout;
- Amendments to the related infrastructure, such as internal access roads and overhead powerline, would result in no change in the overall visual impact significance ratings and would be low before and after mitigation; and
- Accordingly, the amendments to the as-built project will not result in an increased level or change in the nature of the visual impacts, and the final as-built layout is acceptable from a visual perspective.

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SPECIALISTS FINDINGS

Paleontological review and statement

- The geology underlying the 75 MW Humansrus Photovoltaic (PV) 1 Solar Power Facility comprises the Ghaap Group of the Transvaal Supergroup and sand of the Gordonia Formation;
- Rocks of the Ghaap Group are world renowned for significant finds of paleontological heritage objects, including highly significant fossils of micro-bacteria called Stromatolites. The dolomites can contain significant deposits of cave breccia with human remains, but these do not underlie the study sites for the Lesedi Solar Power Facility;
- Findings concur with the initial conclusions of the consultants who recommended limited precaution for paleontological heritage; and
- No further mitigation for paleontological heritage is required, specifically where most of the development is underlain by moderately sensitive rock units.

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SPECIALISTS FINDINGS

Heritage review and statement

- The additional development work that has already taken place under this Part 2 EA Amendment Application, and has been completed already, did not impact on any of the known and recorded cultural heritage sites (homestead, family graveyard and stone cairns around the homestead);
- The impact of the developments on the recorded and known cultural heritage sites in the area is therefore deemed as negligible;
- Although it is fairly clear that there have been no direct negative impacts as a result of the Lesedi Power Facility on the known and recorded cultural heritage sites, there would have been some indirect impacts such a restriction to access to these sites for instance for archaeological and historical research purposes; and
- It is recommended that Exemption from undertaking any further Phase I Heritage Impact Assessments as part of this Part 2 EA Amendment Application for the proposed 75 MW Humansrus Photovoltaic (PV1) Solar Power Facility be granted to the Applicant.

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SPECIALISTS FINDINGS

Ecological - Fauna review and statement

- In terms of non-avian fauna species, the findings are in agreement that the site has low sensitivity for animal species;
- The site is also considered limited in terms of unique biodiversity features of relevance to non-avian terrestrial fauna, limited to ecological corridors associated with the Groenwaterspruit which have been marginally affected by stream crossings; and
- In terms of the terrestrial fauna, no potential additional significant impacts have been identified as a result of the existing layout and there should be no reason not to authorise and accept the existing layout of the development.

SPECIALISTS FINDINGS

Ecological – Vegetation review and statement

- This assessment found that the amended infrastructure did not have a significant negative impact on surrounding vegetation;
- Edge effects were limited, and current impacts can be mitigated;
- The historic ecological report of 2011 also did not observe extensive areas of floral sensitivity and habitat diversity, species richness and uniqueness of the vegetation was classified as low;
- The 2011 report concluded that the proposed development would have a medium local impact on the plant communities on-site and was not regarded as a significant threat to the status and presence of these species as they occur abundantly in the general area; and
- This assessment, as well as the 2011 ecological assessment (du Preez, 2011) thus concurs with the screening tool report for the site in that the vegetation and plant species sensitivity are low. However, impacts to the surrounding vegetation must be limited and alien invasive plant species must be controlled for the duration of the operation phase.

IMPACT SUMMARY

Impacts	Part 2 EA Amendment Impact Assessment		NEMA 2011 EIA Application
	Significance before mitigation	Significance after mitigation	Significance after mitigation
Visual Visual impact on rural landscape (Substation, solar arrays and O&M buildings)	High	Medium	Medium
Visual Visual impact on rural landscape (internal access roads and powerlines)	Low	Low	Medium
Paleontological resources Loss of paleontological resources	Low	Low	Low
Heritage resources Impact on old farmstead, shed, kraal, loss or damage to graves	Low	Low	Low
Heritage resources Loss of stone tool scatters & other archaeological resources	Low	Low	Low

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IMPACT SUMMARY

Impacts	Part 2 EA Amendment Impact Assessment		NEMA 2011 EIA Application
	Significance before mitigation	Significance after mitigation	Significance after mitigation
Ecological - Terrestrial Fauna Habitat loss: destruction, disturbance and displacement (vertebrates)	Negligible	Negligible	Low
Ecological - Terrestrial Fauna Habitat loss: destruction, disturbance and displacement (invertebrates)	Low	Low	Low
Ecological - Flora / Vegetation Destruction, disturbance or loss of protected species	Low	Low	Low
Ecological - Flora / Vegetation Alien species invasion	Low	Low	Low
Ecological - Flora / Vegetation Soil compaction and disturbance of vegetation	Low	Low	Low

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IMPACT SUMMARY

Impacts	Part 2 EA Amendment Impact Assessment		NEMA 2011 EIA Application
	Significance before mitigation	Significance after mitigation	Significance after mitigation
Avifauna Disturbance, collisions and electrocutions of birds	Medium	Low	Low
Waste Contamination of natural resources through incorrect storage, handling and disposal of hazardous waste	Low	Low	Negligible
Surface and groundwater Impact on surface water quality as a result of treated sewage effluent qualities not in accordance with discharge standards	Low	Low	Low
Surface and groundwater Impact of infrastructure on surface water resource quality, flow and geomorphology	Low	Low	Low

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IMPACT SUMMARY - POSITIVE

- ✓ No impact to the soil or watercourse habitat (of the Groenwaterspruit) below the 5km 22kV overhead powerline from maintenance activities, as the powerline does not need to be dug up/excavated;

- ✓ No impact to road or rail infrastructure as an underground powerline does not need to be excavated, and no road or rail traffic disruptions occur;

- ✓ Less impact on the non-perennial tributary of the Groenwaterspruit, as the original locality of the substation was proposed to be wedged between the solar field in the west and this stream in the east and could have had an impact on the stream as it would have been closer to it. The substation is located outside of the 1:100 year floodline of the watercourse,

- ✓ Reduced road traffic impacts from waste removal vehicles due to waste PV module storage on site, as these need only be removed approximately once a year and not every 3-months;

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IMPACT SUMMARY - POSITIVE

- ✓ Reduced carbon footprint from less diesel use and emissions due to limiting removal of waste PV modules to once a year and not every 3-months;
- ✓ No additional environmental impacts from PV arrays of up to 1,5km in length across Lesedi north solar field, as the area covered by solar panels would still be approximately 75ha (in a more square layout than the current elongated rectangular layout) if the arrays were limited to 1km length;
- ✓ No further impacts from the outdoor storage of equipment as the area is within the development footprint and fenced to prevent sprawl;
- ✓ Current ecological state of overburden stockpile – semi-natural state and in a fair ecological condition (ecological function is maintained). The vegetation surrounding the stockpile serves as a seedbank to vegetate the stockpile.

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ADVANTAGES TO THE PROPOSED APPLICATION

- ✓ Updating the EA holder details will ensure that the correct entity (Oakleaf Investments Holdings 79 (RF) (Pty) Ltd.) is responsible for implementing and adhering to the conditions specified in the EA and OEMP;

- ✓ Updating of infrastructure (substation, capacitor banks, overhead powerline, PV arrays, AWS & soiling stations) i.t.o. location and size will ensure appropriate management and monitoring of any associated impacts;

- ✓ Update and inclusion of the O&M facility and associated infrastructure: an office and storage buildings, security, ablution facilities, parking, outdoor store and water treatment facility, will ensure that appropriate management and monitoring of any associated impacts with the infrastructure;

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ADVANTAGES TO THE PROPOSED APPLICATION

- ✓ The application for the temporary storage of up to 300 waste solar PV modules on site, in compliance with the 2013 Norms and Standards for the Storage of Waste (NEM:WA 59 of 2008) will ensure compliance with relevant legislative requirements;

- ✓ The alignment of the authorised development footprint with the farm boundary and approval of the as-built drawings as the approved Layout Plan will ensure compliance with the EA and appropriate management and monitoring of any associated impacts as required;

- ✓ The application for the removal of the 50m and 200m visual buffers for the aboveground 22kV Powerlines will ensure compliance with the EA.

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QUESTIONS?

Hand raised

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CONCLUSION AND CLOSE-OUT OF MEETING

Thank you for your time

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