APPENDIX C:

Maps

CSIR
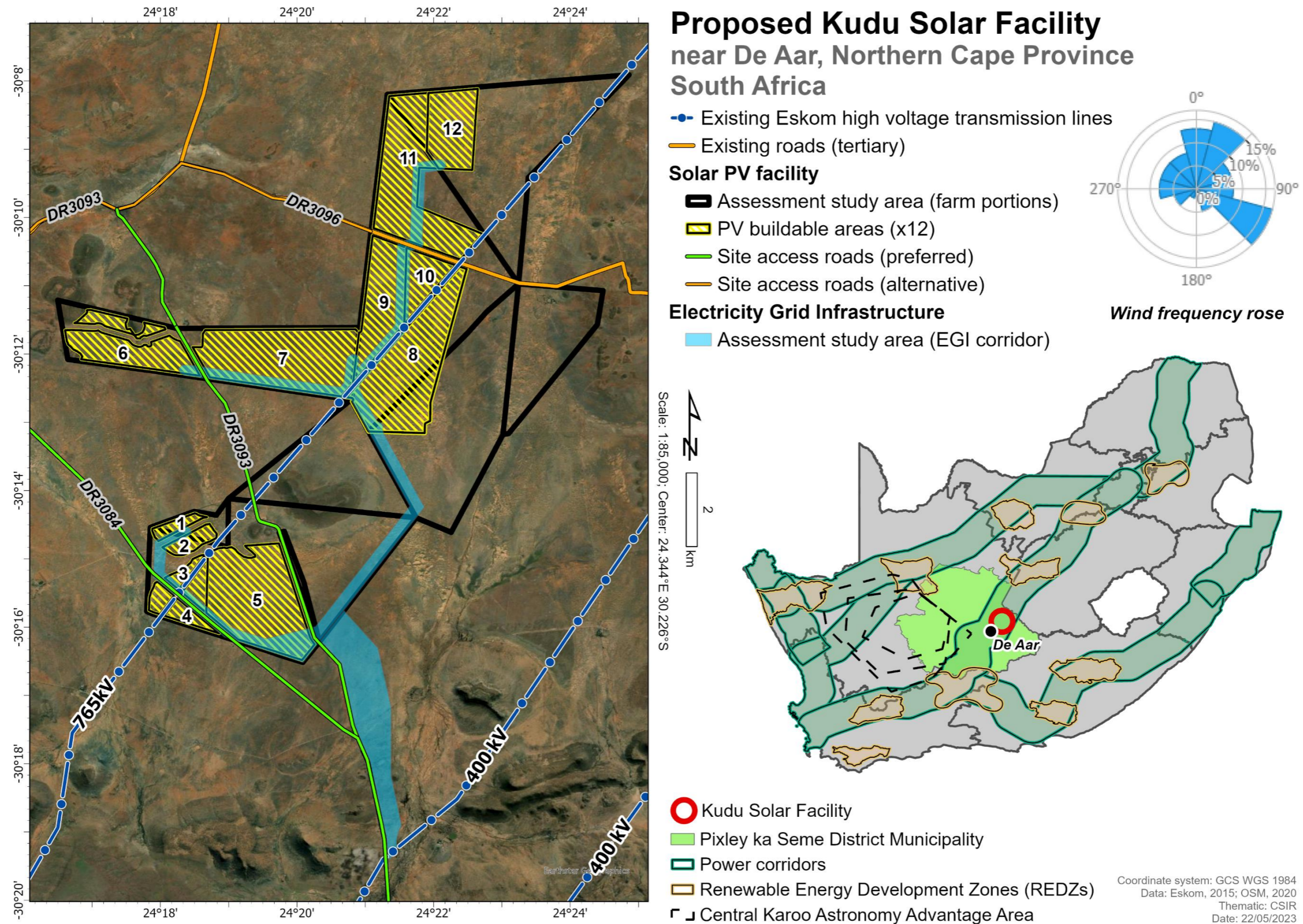Touching lives through innovation

APPENDICES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT: Scoping and Environmental Impact Assessment (EIA) Process for the Proposed Development of a Solar Photovoltaic (PV) Facility (Kudu Solar Facility 8) and associated infrastructure, near De Aar, Northern Cape Province

CONTENTS

Proposed Kudu Solar Facility
near De Aar, Northern Cape Province
South Africa

- ●—●— Existing Eskom high voltage transmission lines
- —— Existing roads (tertiary)

Solar PV facility
- ▭ Assessment study area (farm portions)
- ▭ PV buildable areas (x12)
- —— Site access roads (preferred)
- —— Site access roads (alternative)

Electricity Grid Infrastructure
- ▧ Assessment study area (EGI corridor)

Wind frequency rose

Scale: 1:85,000; Center: 24.344°E 30.226°S

○ Kudu Solar Facility
▧ Pixley ka Seme District Municipality
▢ Power corridors
▢ Renewable Energy Development Zones (REDZs)
⌐⌐ Central Karoo Astronomy Advantage Area

Coordinate system: GCS WGS 1984
Data: Eskom, 2015; OSM, 2020
Thematic: CSIR
Date: 22/05/2023

Locality Map of the Proposed Kudu Projects.
Note that the EGI Projects are not part of the current application and report. The EGI Projects will be considered separately at a later stage. The EGI corridor indicated in this Figure is indicative.

APPENDICES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT: Scoping and Environmental Impact Assessment (EIA) Process for the Proposed Development of a Solar Photovoltaic (PV) Facility (Kudu Solar Facility 8) and associated infrastructure, near De Aar, Northern Cape Province

Proposed Kudu Solar PV facility (1 - 12)
near De Aar, Northern Cape Province
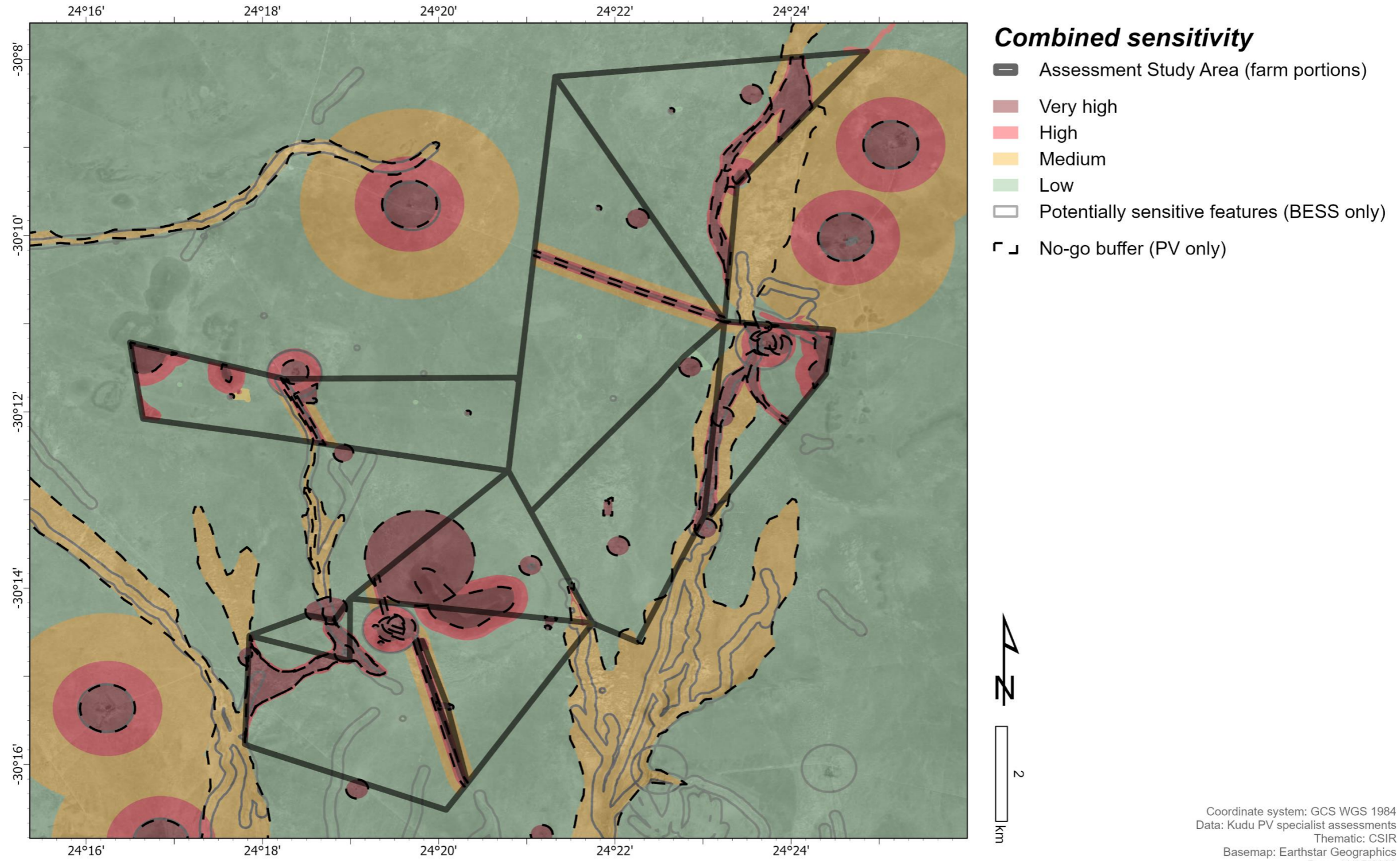## South Africa
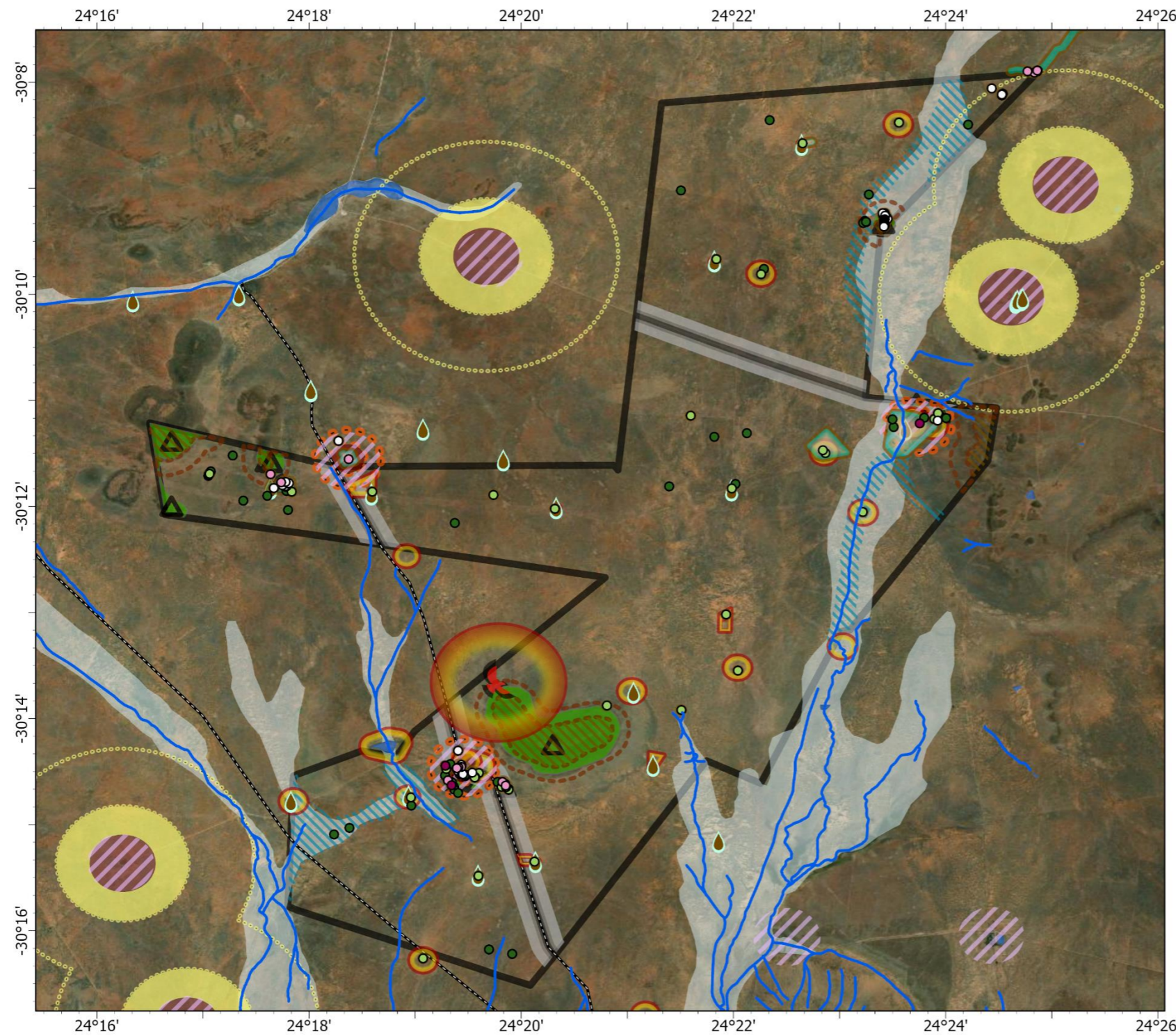
Combined environmental features

- ▭ Assessment study area
- --- Site access roads (preferred)

Terrestrial ecology
- 🔺 Koppies

Aquatic ecology
- ▬ Watercourses (rivers, 35m; pans, 50m)
- ▬ Floodplains

Avifauna
- 🦅 Verreaux's eagle nest (1km)
- ▭ Waterpoint (mimimum 50 m)

Visual and scenic resources
- ▨ Drainage features (50m)
- ▨ Topographic features
- ▨ Topographic features (250m)
- ▨ Farmsteads (inside study area, 250m)
- ⁘ Farmsteads (inside study area, 500m)
- ▨ Farmsteads (outside study area, 500m)
- ▨ Farmsteads (outside study area, 1km)
- ▨ Farmsteads (outside study area, 2km)
- ▨ Roads (50m)
- ▨ Roads (100m)
- ▨ Roads (250m)

Safety, Health and Environment Risk
- ▨ Farmsteads (500m, BESS only)

Groundwater
- 💧 Boreholes (50m, BESS only)

Heritage features
- ● Grading: IIIA
- ● Grading: IIIB
- ○ Grading: GPA
- ● Grading: GPB
- ● Grading: GPC
- ▬ Heritage features (50m)

Coordinate system: GCS WGS 1984; Data: Kudu PV specialist assessments; Thematic: CSIR
Basemap: Earthstar Geographics
Date: 07/02/2023

Combined Environmental Feature Map for the proposed project study area.

APPENDICES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT: Scoping and Environmental Impact Assessment (EIA) Process for the Proposed Development of a Solar Photovoltaic (PV) Facility (Kudu Solar Facility 8) and associated infrastructure, near De Aar, Northern Cape Province

Proposed Kudu Solar PV facility (1 - 12)
near De Aar, Northern Cape Province
South Africa

Combined sensitivity

- ▬ Assessment Study Area (farm portions)
- ▮ Very high
- ▮ High
- ▮ Medium
- ▮ Low
- ▢ Potentially sensitive features (BESS only)
- ⌐⌐ No-go buffer (PV only)

Coordinate system: GCS WGS 1984
Data: Kudu PV specialist assessments
Thematic: CSIR
Basemap: Earthstar Geographics
Date: 11/05/2023

Combined Environmental Sensitivity Map for the proposed project study area.

APPENDICES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT: Scoping and Environmental Impact Assessment (EIA) Process for the Proposed Development of a Solar Photovoltaic (PV) Facility (Kudu Solar Facility 8) and associated infrastructure, near De Aar, Northern Cape Province

Proposed Kudu Solar PV facility (8)
near De Aar, Northern Cape Province
South Africa
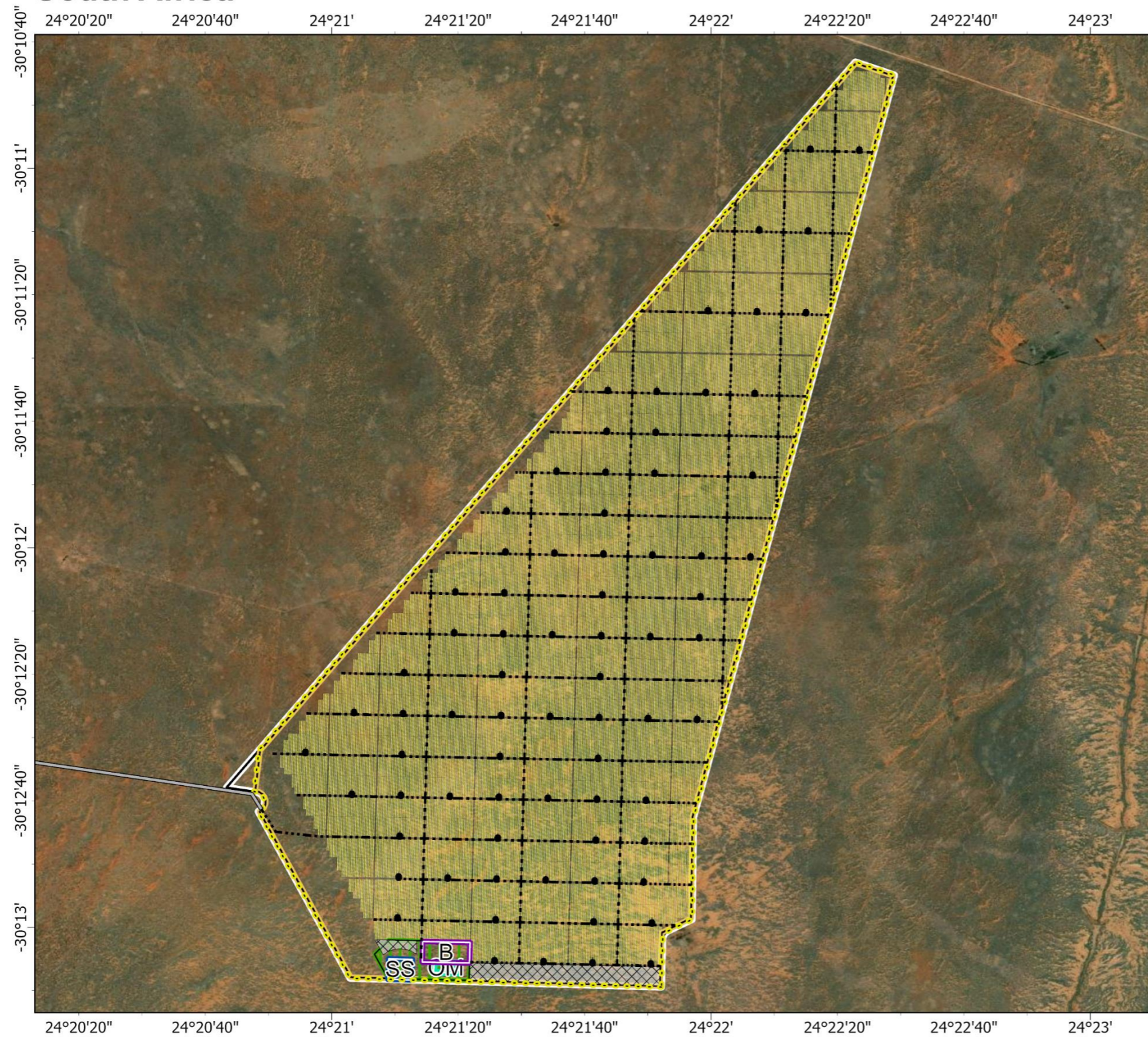
PV 8 layout

- Buildable area
- Development footprint
- PV modules
- Inverter
- SS Substation
- B BESS
- On-site substation complex
- OM O&M building
- Laydown area
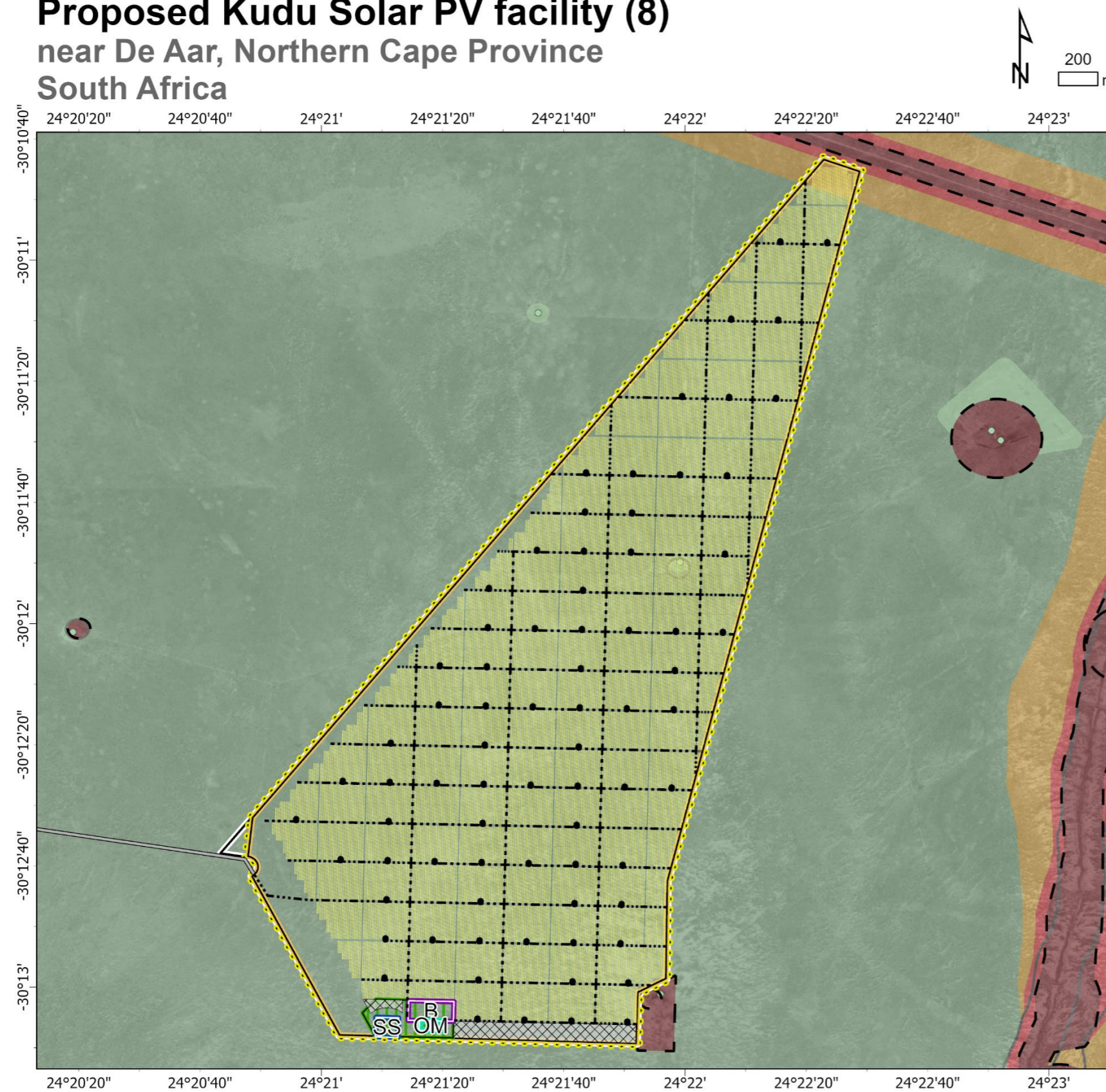- Fence
- Access road
- Internal road
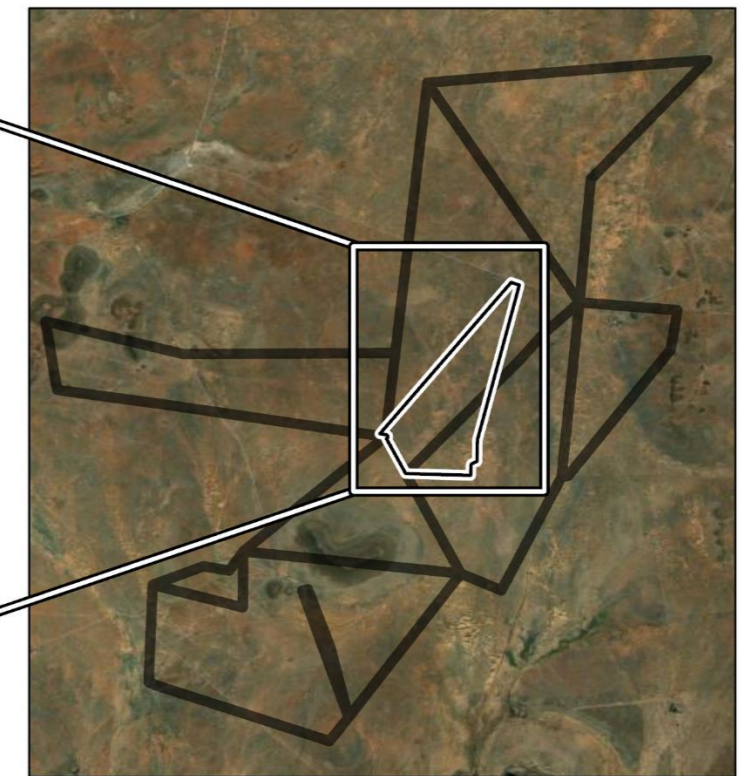
- Assessment Study Area (farm portions)
- PV 8

Coordinate system: GCS WGS 1984; Scale: 1:140,000
Data: Kudu PV specialist studies
Thematic: CSIR
Basemap: Earthstar Geographics, Maxar
Date: 21/05/2023

Project Layout Map

APPENDICES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT: Scoping and Environmental Impact Assessment (EIA) Process for the Proposed Development of a Solar Photovoltaic (PV) Facility (Kudu Solar Facility 8) and associated infrastructure, near De Aar, Northern Cape Province

Proposed Kudu Solar PV facility (8)
near De Aar, Northern Cape Province
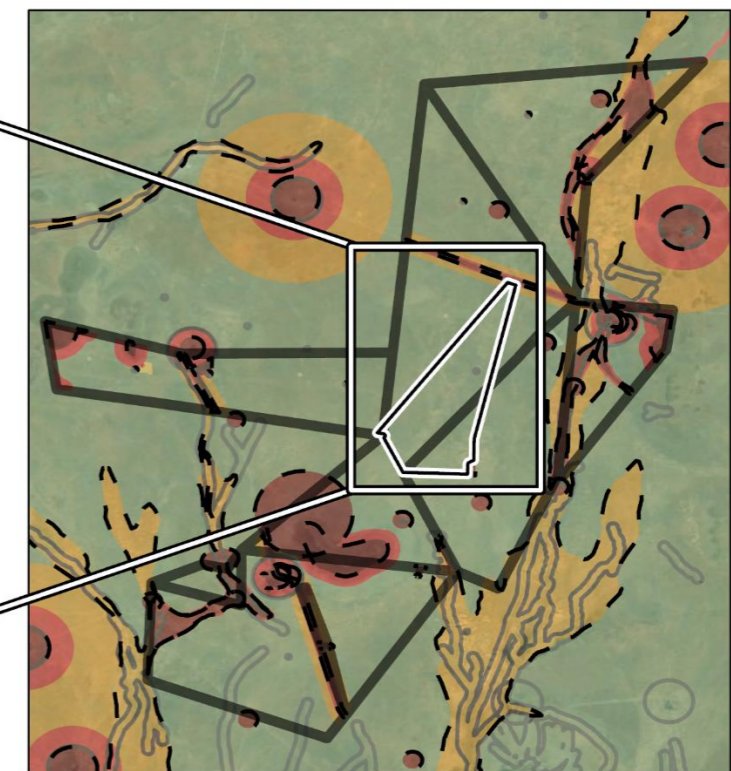## South Africa

Combined sensitivity

- ⬛ Development footprint
- 🟨 PV modules
- ▬ Inverter
- S·S Substation
- (B) BESS
- ▭ On-site substation complex
- OM O&M building
- ⊠ Laydown area
- ⋮⋮ Fence
- ── Access road
- ⋯⋯ Internal road

Environmental sensitivity - PV

- 🟫 Very high
- 🟥 High
- 🟧 Medium
- 🟩 Low
- ▭ Potentially sensitive features (BESS only)

Buffer areas

- ⌐ ⌙ No-go buffer

Assessment Study Area (farm portions)

▭ PV 8

Coordinate system: GCS WGS 1984
Data: Kudu PV specialist studies
Thematic: CSIR
Basemap: Earthstar Geographics, Maxar
Date: 5/26/2023

Combined Project Layout and Sensitivity Map.