



CONSERVA

Environmental Management Services

ENVIRONMENTAL IMPACT ASSESSMENT SITE SENSITIVITY VERIFICATION (SSV) REPORT

PROPOSED 480MW SOLAR PV FACILITY,
PORTION 1 FARM ZWARTWITPENSBOK FONTEIN 434-KQ,
KOEDOESKOP, LIMPOPO PROVINCE

DFFE Ref. Pending

DATE: 1 September 2023

Prepared for:

Allied Green Energy (Pty) Ltd

P O Box 6, Koedoeskop, 0361

SSV REPORT

INFORMATION

REPORT BASIS:

This report is a Site Sensitivity Verification (SSV) Report describing the outcomes of a site sensitivity verification done by means of desktop analysis and a field investigation conducted for an application property to confirm the actual state of the site compared with what is identified by the National DFFE Screening Tool.

The SSV is intended to confirm or refute the environmental sensitivity themes relevant to the site and the need to employ specialists as identified in the Screening Tool Report (STR) to help inform the environmental impact assessment reports. The SSV is undertaken before the commencement of an EIA process. The report is submitted as a supporting document with the application for environmental authorisation to the competent authority.

PROJECT DETAILS:

This SSV Report has been prepared for the proposed development of an up to 480MW Photovoltaic (PV) Solar Facility covering approximately 276-hectares on Portion 1 of the Farm Zwartwitpensbokfontein 434-KQ at Koedoeskop in the Waterberg District of Limpopo Province. The application property falls within the jurisdiction of Thabazimbi Local Municipality.

PREPARED BY:

Conserva Environmental Management Services (CEMS)
Independent Environmental Assessment Practitioner

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CEMS is an independent environmental consulting firm with no vested interest (either business, financial, personal, or other) in the proposed activity proceeding other than remuneration for work performed in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA). Our fees are based on the South African Council for Natural Scientific Professionals (SACNASP) Recommended Consultation Fees (Notice 98 of 2021). We do not echo the views of the applicant however provide an independent view formed by regulated tasks conducted under the NEMA and its published EIA Regulations. The payment of our professional fees is therefore not subject to the outcome of the EIA process.

PREPARED FOR:

Allied Green Energy (Pty) Ltd

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Annexure 1 – DFFE National Screening Tool Report (STR)

Annexure 2 – CVs of Project Team

1 INTRODUCTION

Allied Green Energy (Pty) Ltd is proposing to develop and operate a Photovoltaic (PV) Solar Facility on Portion 1 of the farm Zwartwitpensbokfontein 434-KQ located 10km south-west of Koedoeskop in the Limpopo Province. (See Figure 1-1).

The proposed PV solar facility will have a total generating capacity of up to 480MW and will connect to the national grid at the existing 132kV Spitskop-Mamba overhead power line (OHPL) crossing the application property. The facility will link using an onsite step-up transformer (substation). AGE intends to sell 66% of the solar power generate at the facility to Eskom, 33% will be wheeled through the national grid to private users (i.e., nearby farmers, mine) and 1% will be supplied to Allied Farms (Pty) Ltd for commercial farming activities.

The application property is approximately 377-hectares in extent of which 25% comprise a rocky outcrop and 75% is flat. The facility will be developed on the 250-275-hectares flat terrain on the western section of the property which is considered the assessment focus area. (See Figure 1-2).

The project triggers several listed activities under Government Notice (GN) No. R 324, 325 and 327 of the 2014 National Environmental Management Act, 107 of 1998 (NEMA) EIA Regulations (as amended in April 2017) and is subject to an environmental authorisation application process. The main triggered activities include Activity 1 and 15 under GNR 325 (Listing Notice 2) thus the authorisation process to be followed is a full Scoping and Environmental Impact Assessment (EIA) process. The SSV Report will accompany the application for environmental authorisation submitted to National Department of Forestry, Fisheries and Environment.

2 PURPOSE OF REPORT

Conserva Environmental Management Services (CEMS) have been appointed by AGE to undertake the Scoping and EIA process in terms of the 2014 NEMA EIA Regulations (as amended) for the proposed 480MW PV Solar Facility.

Regulation 16 (1)(b)(v) of the EIA Regulations of 2014 require the submission of a national web-based environmental screening tool report (STR) (GNR. 960/05 July 2019), when applying for environmental authorisation. The STR is generated using the DFFE national online GIS-based 'National web-based Environmental Screening Tool' and provides detail on the environmental sensitivity theme and specify specialist studies that apply to the proposed development site, based on the national sector classification and the environmental sensitivity themes of the site.

Before commencing with the EIA process, the EAP must undertake a site sensitivity verification (SSV) in response to the sensitivity themes identify in the STR. The findings need to be recorded in the SSV Report in line with the 'Protocols for Assessment and Minimum Report Content Requirements for Environmental Themes for Activities requiring Environmental Authorisation published in Government Notice Regulation 320 of 20 March 2020 under Section 24 (5)(a), (h) and 44 of the NEMA.

This SSV Report has been compiled to verify the data in the National STR generated for the project. The report confirms the relevant applicable environmental sensitivity themes and provides the basis for specialist studies to be undertaken as part of the EIA process.

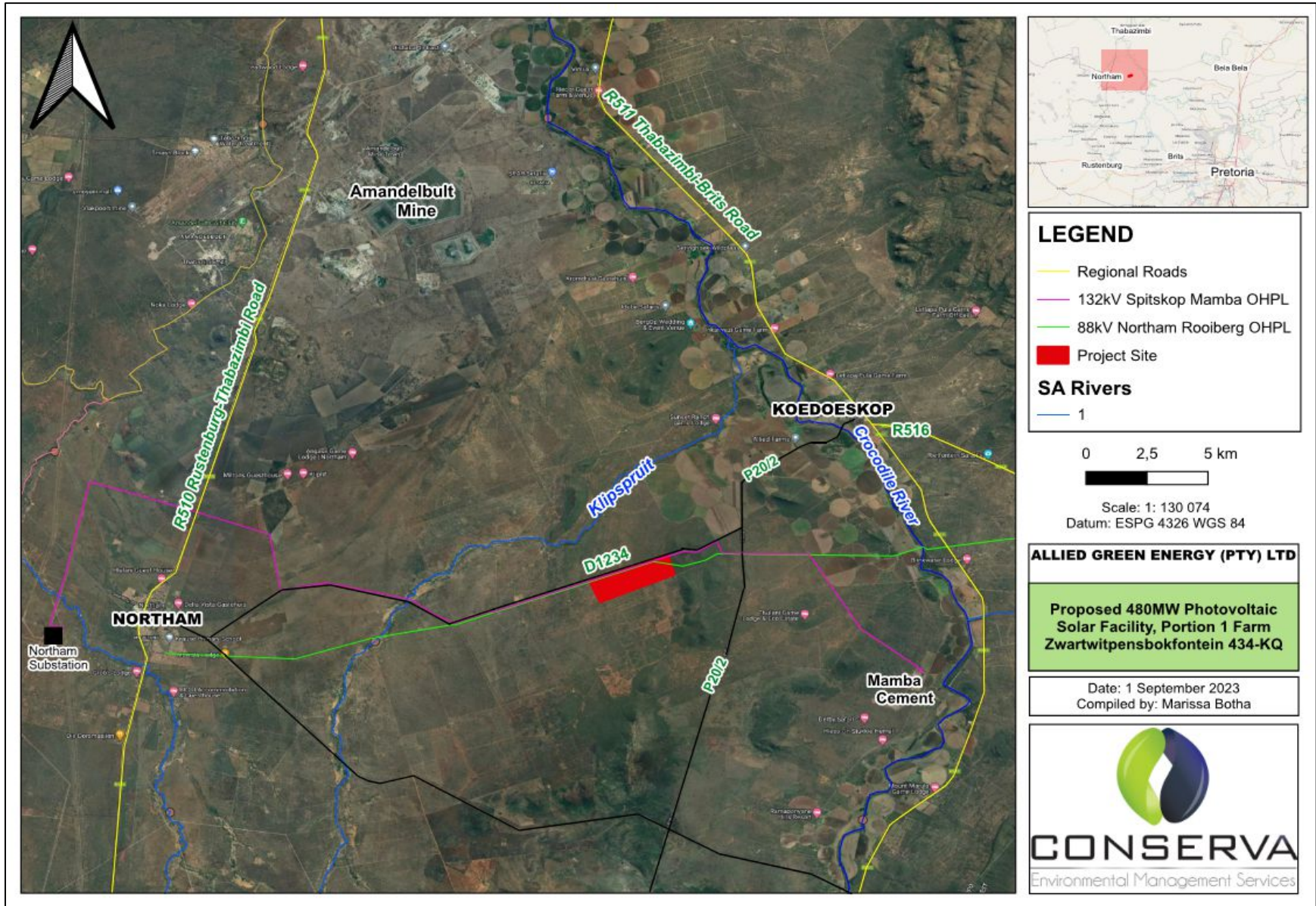


Figure 2-1: Regional Locality Map

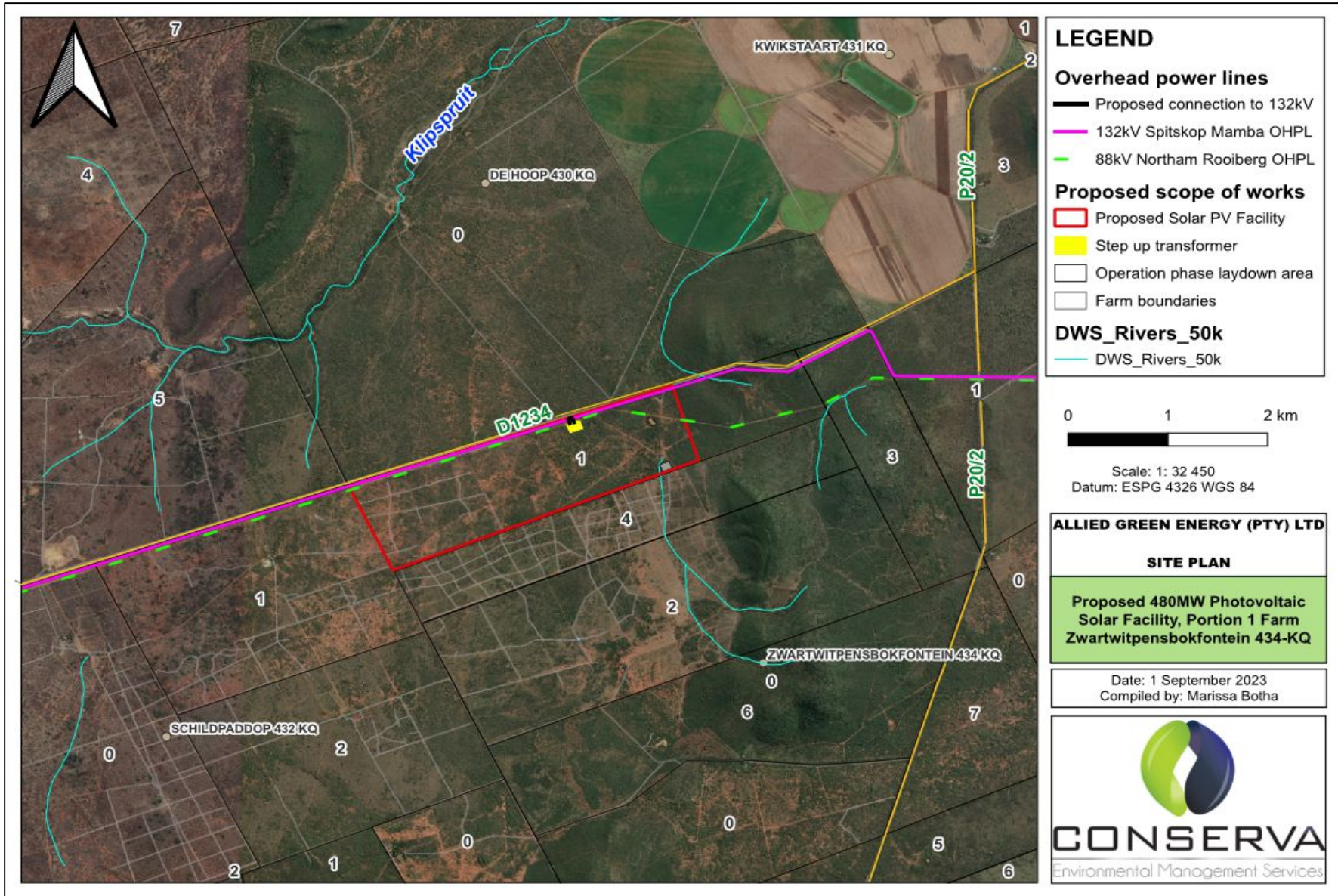


Figure 2-2: Site Plan showing proposed Solar PV Facility and existing Eskom overhead power lines (OHPL)

3 DETAILS OF EAP WHO PREPARED THE REPORT

Table 1: EAP Details

Environmental Assessment Practitioner	Conserva Environmental Management Services (CEMS)
Report Author:	Marissa Ilse Botha (Pr. Sci.Nat)
EAP and Reviewer:	Maryke André (EAPASA)
Contact:	084-226-5584 / 072-755-5103
Email:	Conserva-ems@outlook.com
Qualifications and expertise of EAP:	<p>M Botha has 19 years of experience as an Environmental Scientist and in Environmental Management. Registered Environmental Scientists (<i>Pr. Sci.Nat</i>).</p> <p>M André has 16 years working experience in EIA's and WULA's, has a BTech Nature Conservation. She is an active member of IAIAAsa (membership no. 6254) and a registered EAP with EAPASA.</p>
Professional affiliation / registration:	<p>Marissa Botha SACNASP – Registered Environmental Scientist</p> <p>Maryke André Registered EAP with EAPASA</p>

See attached CVs under **Annexure 2**.

4 SITE SENSITIVITY VERIFICATION APPROACH

4.1 Requirements

The protocols require that the SSV must be undertaken by an EAP or a specialist, prior to commencing with any specialist assessment for an EIA Study to verify the current land use and the environmental sensitivity theme of the site under consideration as identified by the national screening tool. The SSV is to include the following:

- a) Desktop analysis, using satellite imagery.
- b) Site inspection
- c) Any other relevant information which can inform the screening tool assigned sensitivity rating.

The outcome of the site verification must be recorded in the form of a report that: -

- i. Confirms or disputes the land use and environmental sensitivity as identified in the screening tool.
- ii. Contains a motivation and evidence (i.e., photographs) of either the verified or different use of land and environmental sensitivity; and
- iii. Is submitted with the relevant assessment report in accordance with the requirements of the EIA Regulations.

4.2 Methodology

The following methodology was employed:

- Contains a motivation Generation of a National STR.
- Findings of the STR have been verified through desktop spatial analysis, reviewing relevant environmental datasets (spatial assessment) and satellite imagery.
- Site inspection undertaken on 1 August 2023 by CEMS.
- Specialist verification desktop analysis and site inspections during August 2023.

The Desktop Spatial Assessment was conducted to confirm the relevance of geographic areas identified in the STR using satellite imagery and various spatial datasets from various sources (i.e., provincial, district and national government, SAHRIS, Conservation Data).

CEMS conduct a site inspection on 1 August 2023 and the specialist site verifications were conducted throughout August 2023. The CEMS and specialist inspections were done by means of pedestrian and vehicle surveys to generate the required photographic proof and to verify the environmental sensitivities and confirmed land use for inclusion in the SSV Report. The surveys were tracked using either Garmin global positioning units or the Locus App on smartphones. CEMS particularly used the Locus App on a Samsung Galaxy A23 smartphone to record its survey tracks and record photos at specific points along the surveyed tracks.

5 NATIONAL SCREENING TOOL REPORT RESULTS

The STR has been generated for the project site and is attached under **Annexure 1**.

The only incentives, restriction, exclusions, or prohibitions recorded for the site is that it falls within the Waterberg-Bojanala Air Quality Priority Area (AQPA). The AQPA was established to monitor potential threats posed to the ambient air quality by emissions from future energy-based projects in the Waterberg District Municipality and in Botswana up to 2023. The project is however a renewable energy project that will not generate any emissions.

According to the STR the project site is linked to several environmental sensitivity themes and identified specialist studies detailed in Table 2.

Table 2: STR Findings

Theme	Sensitivity Rating	Recommended Specialist Studies
Agriculture	Very High	<ul style="list-style-type: none"> ▪ Geotechnical Investigation ▪ Agricultural ▪ Visual ▪ Terrestrial Biodiversity (incl. plant, animal) ▪ Avifauna Study ▪ Aquatic Biodiversity ▪ Heritage ▪ Palaeontology ▪ Socio-Economic ▪ Civil, Defence, RFI
Terrestrial	Very High & Low (CBA, ESA, abutting PNRs)	
Plant	Low	
Animal	Moderate	
Avian	Low	
Aquatic	Low	
Landscape	Very High	
Heritage	Low	
Palaeontological	High	
Civil, Defence, RFI	Mod - Low	

The STR requires the EAP to confirm the sensitivity themes, required specialist assessment and motivate the reason for excluding any identified specialist studies. In cases where the EAP is of the opinion that a study required by the STR would be superfluous, motivation must be provided.

6 SITE SENSITIVITY VERIFICATION RESULTS

This section of the SVR serves to:

- Verify the land use and sensitivities identified in the STR; and
- Confirm/refute the sensitivity ratings and need to employ specialist called for in the STR.
- Motivate and provide evidence of either the verified or different use of land and environmental sensitivity.

6.1 Desktop Analysis

Geology:

According to the 1: 250 000 Council of Geoscience Geological Dataset for South Africa there are two geological zones underlying Portion 1 of the farm Zwartwitpensbokfontein 434-KQ i.e.,

- **Zone A (Majority of site): Non-Dolomitic Land** comprising the following lithologies:
 - Time ball Hill formation comprising shale, hornfels, mudrock, quartzite, magnetic ironstone underlays most of the assessment focus area.
 - Penge Formation which comprises iron formation along a narrow strip on the eastern portion of the site.
- **Zone B (Rocky outcrop on eastern extreme of Portion 1): Dolomitic Land** comprising the Malmani Formation i.e., dolomite, chert, limestone, and quartzite.

According to the Geological maps the dolomite formation dips at approximately 40 degrees (steep dip) to the west below the iron and shale formations. The non-dolomitic land (flat area) covers 75% of the application property and the dolomitic land the remaining 25 % which comprises a rocky outcrop. The solar pv facility will be developed on non-dolomitic land to avoid costly bedrock drilling required in terms of the Geotechnical Dolomite Standards SANS 1936: 2012. (See Figure 6-1). A Geotechnical Investigation is underway to delineate the dolomite contact on the eastern extreme of the site however through basic soil test pit sampling. The solar development will remain 150 meters clear of the dolomite contact.

Terrestrial Biodiversity:

According to the Mucina and Rutherford (2016) and the 2018 Vegetation Map of South Africa, the application property is predominantly covered in Dwaalboom Thornveld (Figure 6-2) with Madikwe Dolomite Bushveld covering the adjacent areas to the east of the site. The Dwaalboom Thornveld has an ecosystem protection status of 'Least Concern' in terms of the 2022 Revised List of Threatened Ecosystems. Based on the Waterberg Bioregional Plan (2018 Limpopo Critical Biodiversity Areas) the project site falls within a 'Other Natural Area' (ONA) and 'Ecological Support Area' (ESA) (see Figure 6-3).

Protected Areas:

The application property is also located next to Tortoiseshell private nature reserve (farm Schilpaddop) and within the 5-km buffer zone of three other proclaimed private nature reserves (i.e., Sharme, Die Kraal, and Koerooi) in terms of the protected areas register (PAR) (SAPAD 2022 Q4) (see Figure 6-4).

Any National Protected Areas Expansion (NPAES) Focus Areas:

According to the 2018 NPAES Priority Focus Area Database the project site does not fall within any Priority Focus Areas (see Figure 6-5).

Aquatic Biodiversity:

The application property falls with the Lower Crocodile River Catchment in quaternary drainage region A24C within the Crocodile West Water Management Area but outside the Crocodile West Irrigation Scheme area. There are no wetlands or National Freshwater Ecosystem Priority Areas (NFEPA) within the application property and direct area according to the South African Inventory of Inland Aquatic Ecosystems (SAIIAE) wetland and 2011 NFEPA datasets.

The DWS 1: 50 000 river line data for QDS 2427 shows the presence of three non-perennial drainage features with 500 meters of the application property of which only one falls within the proposed solar pv facility focus area. These are superimposed all the below Figure 6-1 up to 6.4.

Avifauna

According to the 2015 Important Bird Area (IBA) Dataset the project site is located south adjacent to the Northern Turf Thornveld IBA. The STR indicate that Avifauna Species of Conservation Concern (SCC) possibly present include *Aquila rapax* (Tawny Eagle). The STR indicate that Avifauna Species of Conservation Concern (SCC) possibly present include *Aquila rapax* (Tawny Eagle) (see Figure 6-6).

Heritage and Palaeontology

There are no specific heritage resource sites recorded on the application property based on the SAHRIS database however the SAHRIS Palaeontological Sensitivity Map indicates that site is of 'High' Palaeontological sensitivity due to the presence of the Timeball and RooiHoogte Formations. Stromalites are known to be present in these formations (see Figure 6-7).

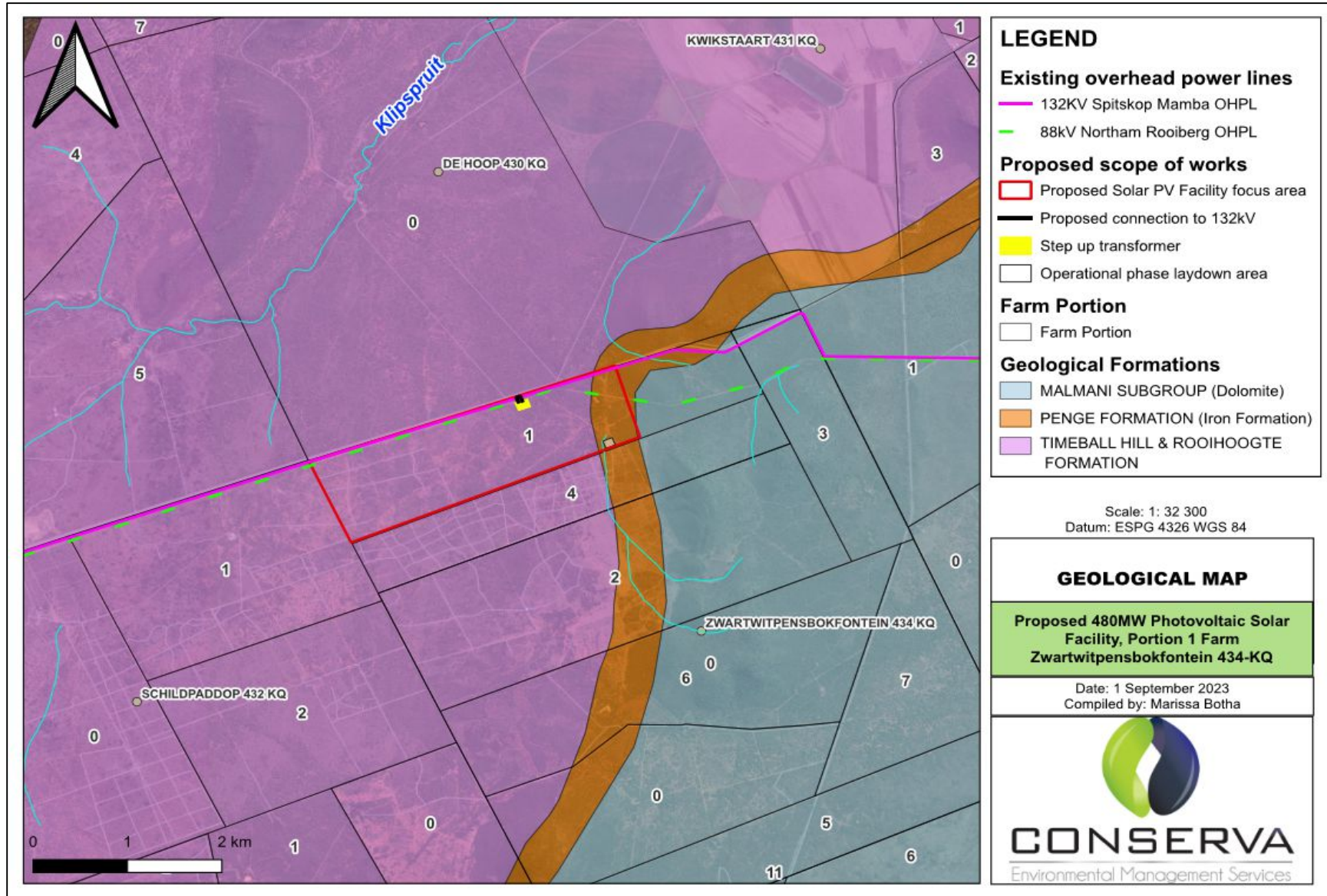


Figure 6-1: 1: 250 000 Geological Map superimposed on the application property.

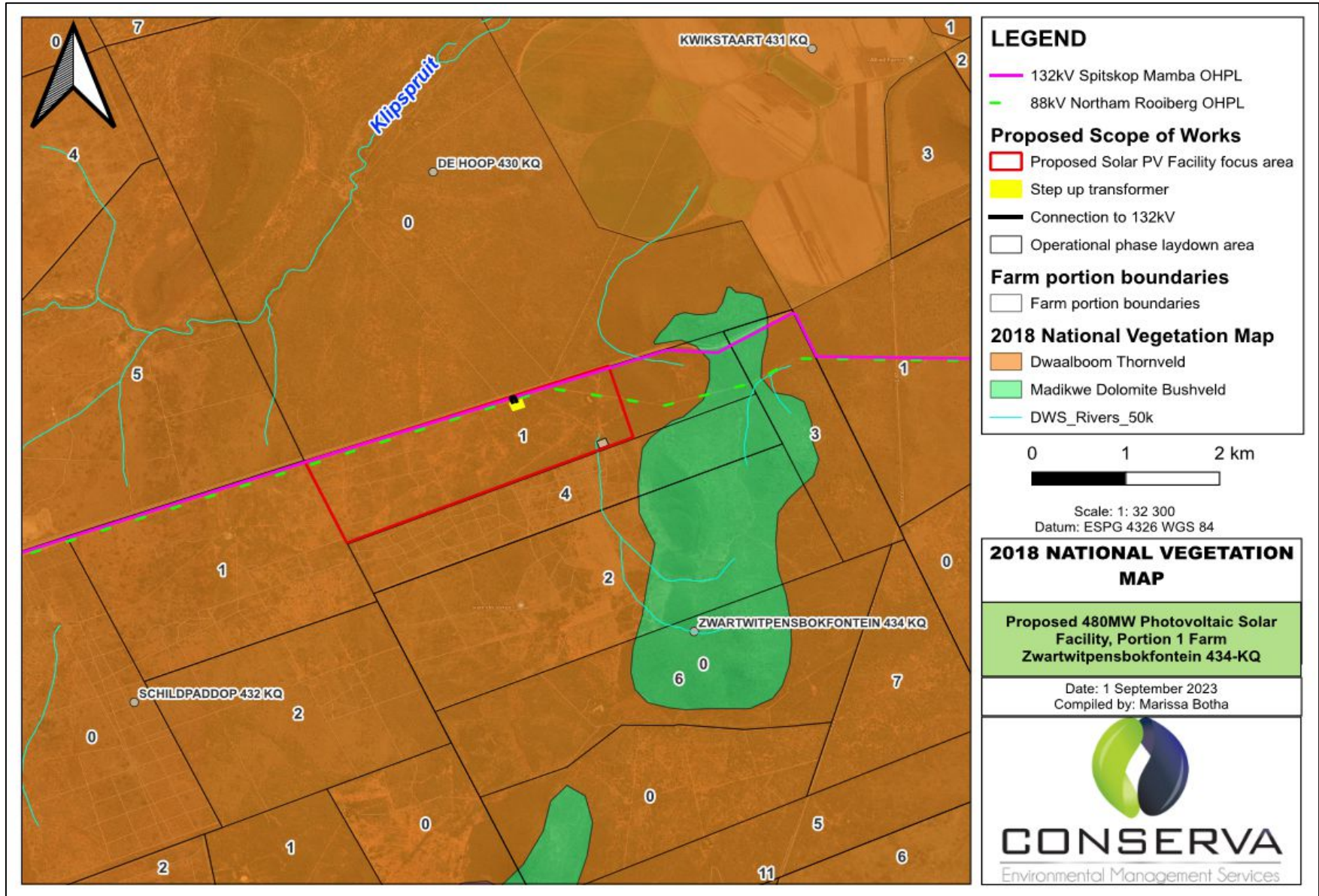


Figure 6-2: 2018 National Vegetation Map Dataset superimposed on the application property.

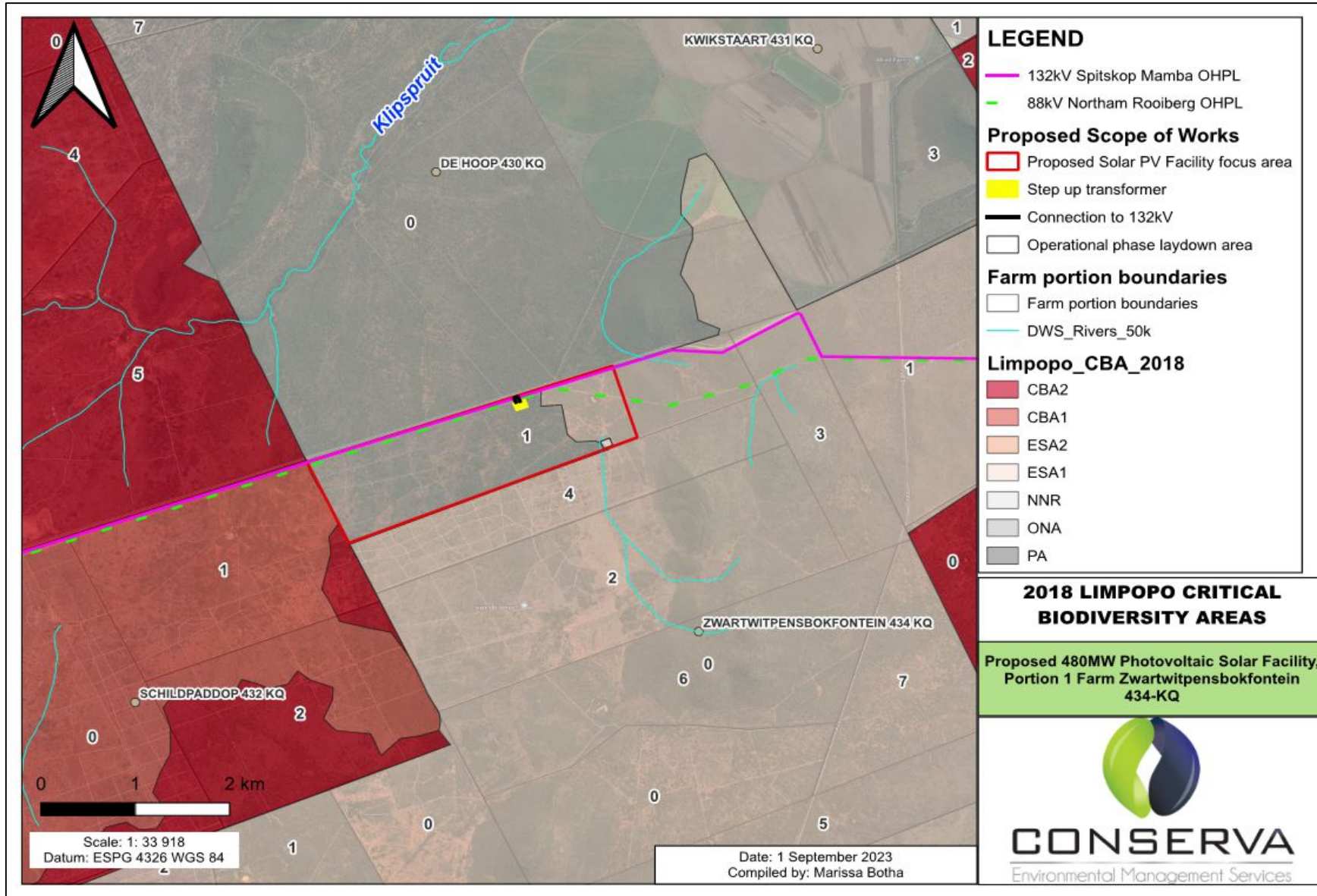


Figure 6-3: Limpopo 2018 Critical Biodiversity Areas superimposed on the application property.

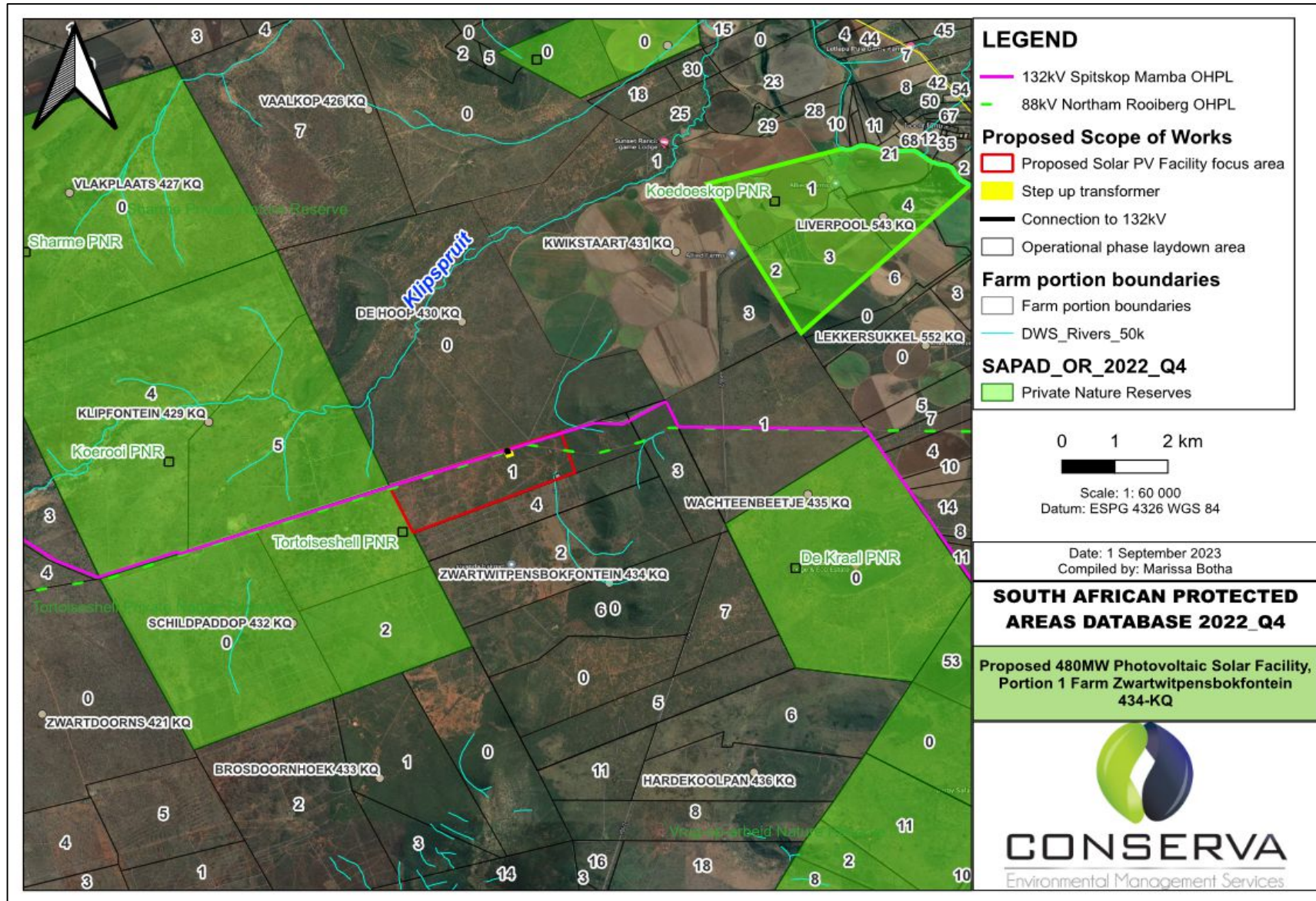


Figure 6-4: South Africa Protected Areas Dataset superimposed on the regional project area

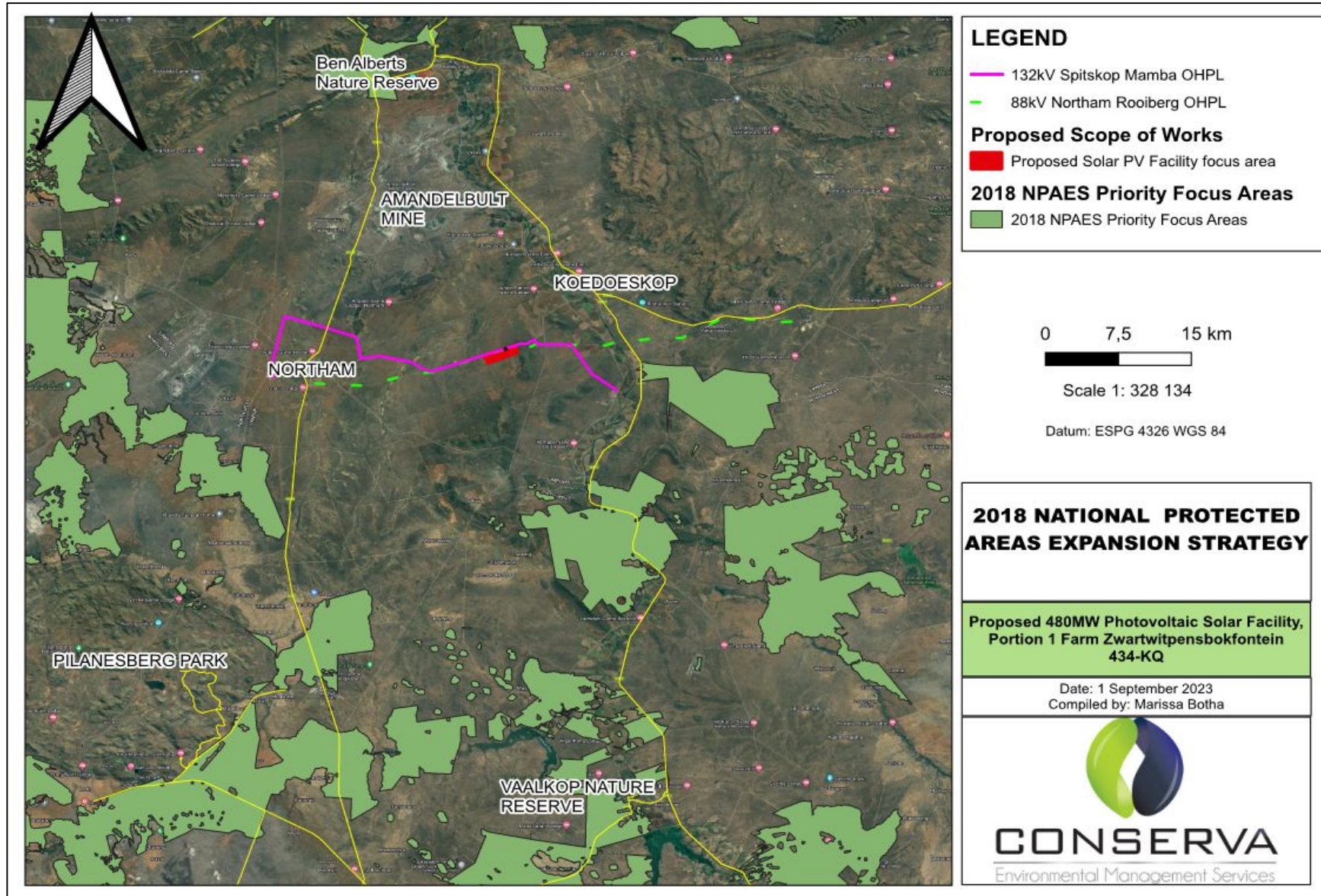


Figure 6-5: 2018 National Protected Areas Expansion Strategy Focus Areas Dataset superimposed on the regional and project area

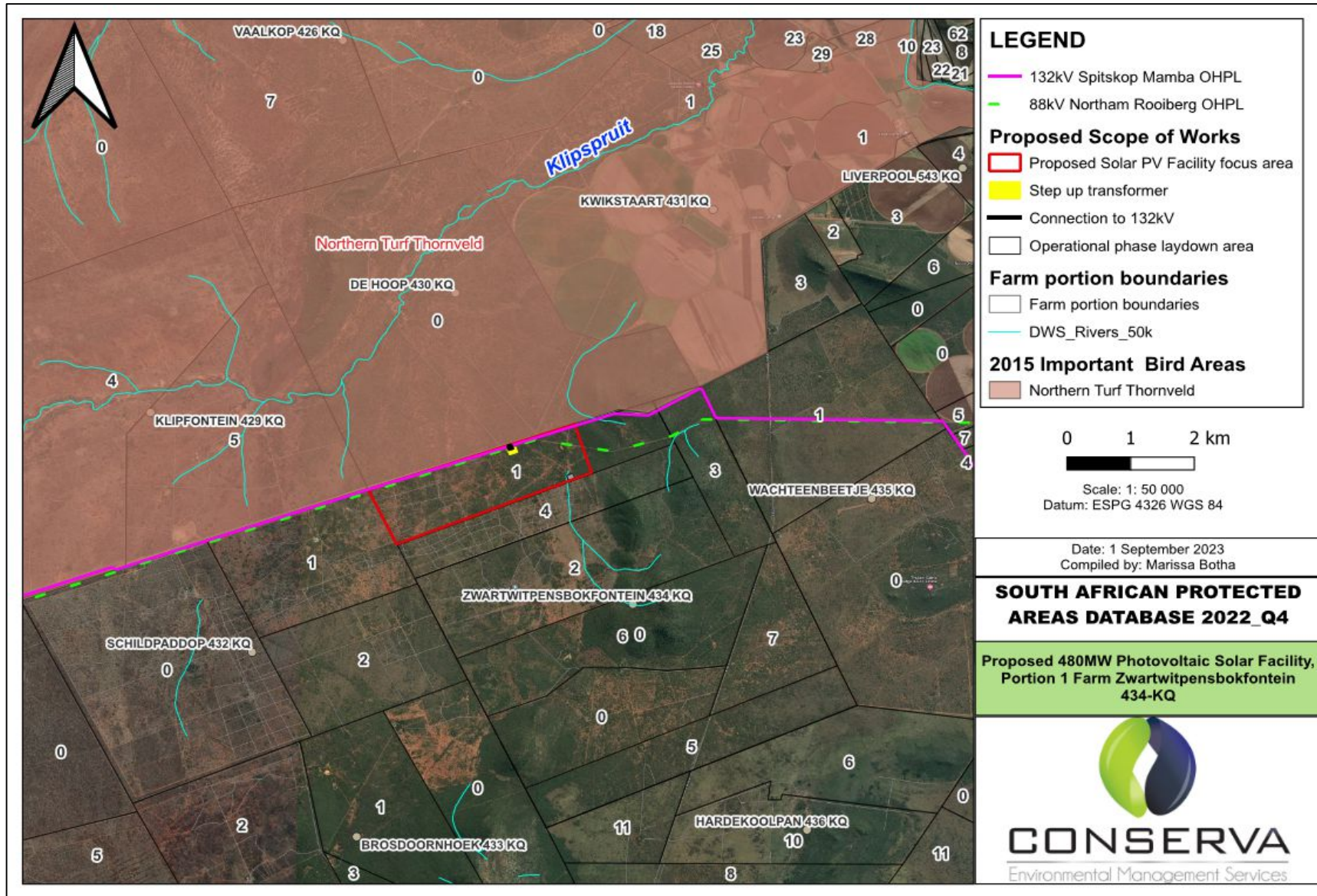


Figure 6-6: 2015 Important Bird Area Database superimposed on the project area

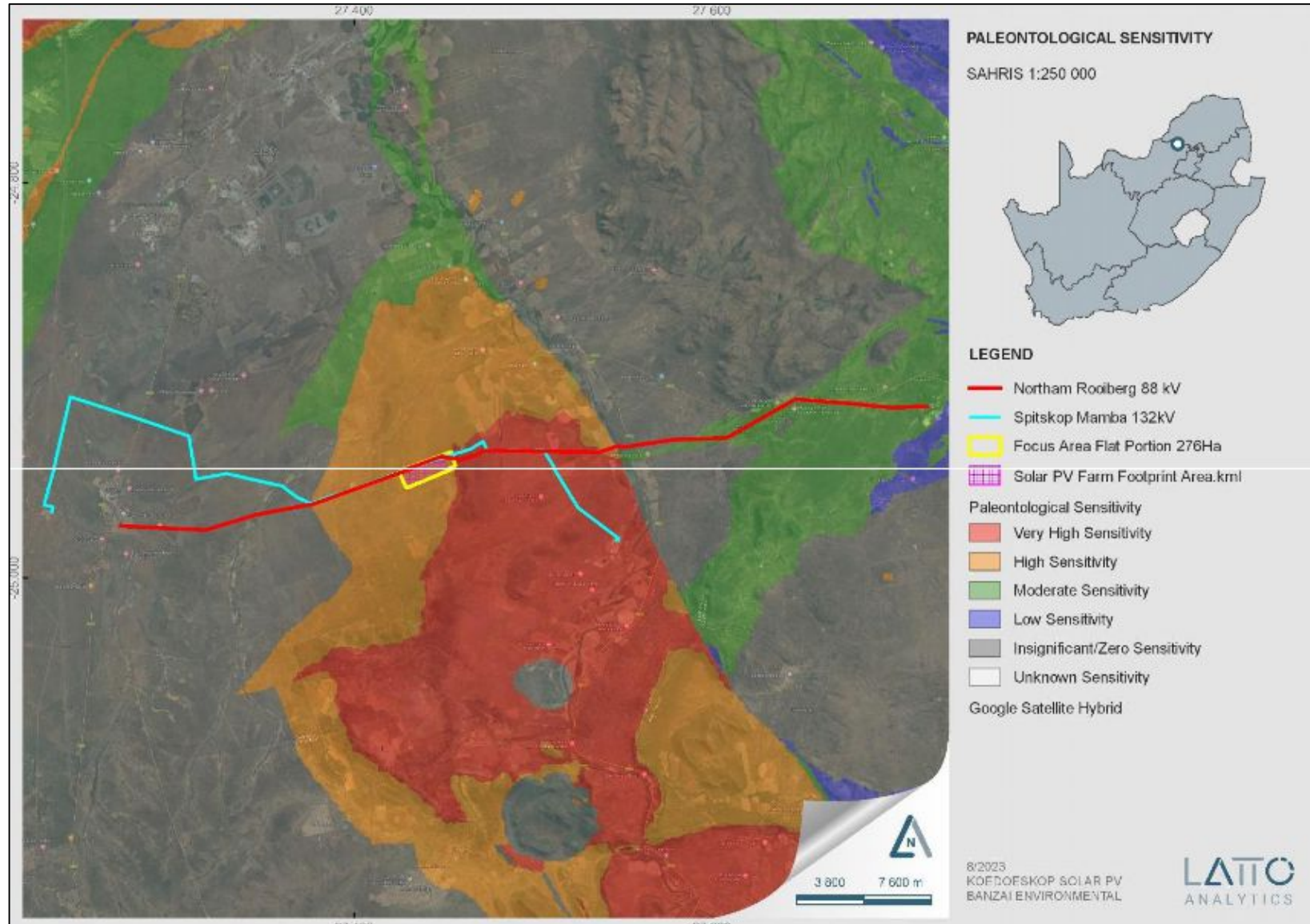


Figure 6-7: PalaeoSensitivity Map superimposed on the application area

6.2 Site Assessment

CEMS surveyed the site on foot and by vehicle on 1 August 2023. There were some areas covered in dense Sicklebush that were impenetrable. The survey was conducted using a Google Earth map overlain by the proposed solar pv facility footprint opened in Locus Map App using a smartphone. The survey tracks were recorded in Locus Map App and representative photographs were taken along the survey tracks. The survey tracks across the application property are illustrated in Figure 6-8.

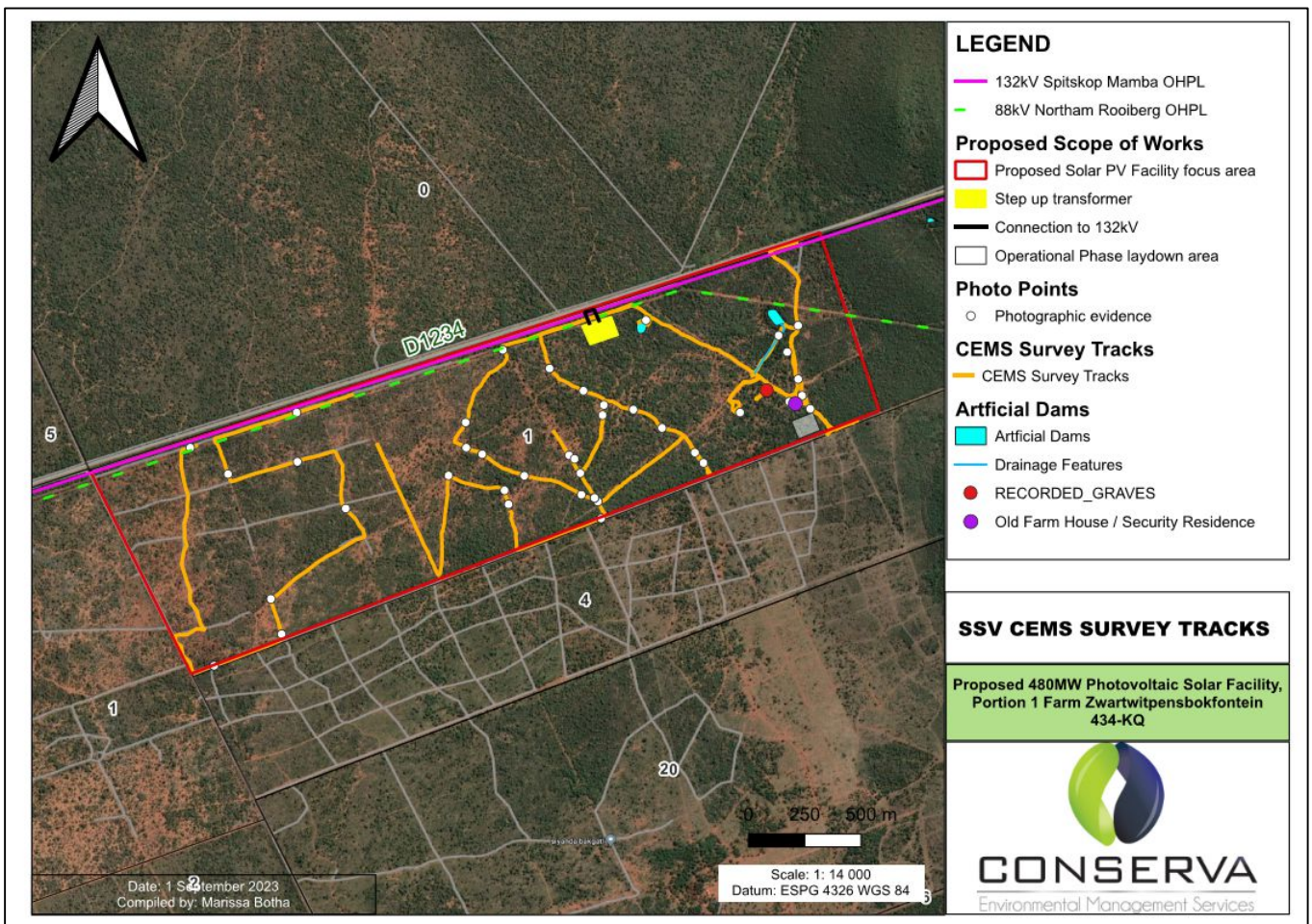


Figure 6-8: CEMS Survey tracks across the application property and finds.

CEMS have also roped in the below specialists who conducted independent field-based surveys during August 2023.i.e.,

- Geotechnical (RockSoil Consult – Kobus Roux)
- Agricultural Potential (Dr Andries Gouws)
- Terrestrial Biodiversity (The Biodiversity Company)
- Avifauna (The Biodiversity Company)
- Aquatic Biodiversity (The Biodiversity Company)
- Landscape and Visual (Outline Landscape Architects - Kathrin Hammel-Louw)
- Heritage (Ubique Heritage Consultants – Heidi Fivaz)
- Palaeontology (Banzai Environmental – Elize Butler)

The above field surveys have been used to supply the verified land use, confirm or refute the environmental sensitivity ratings identified in the STR and motivate the rationale for specialist assessment (Section 7 below) including level of assessment required for the EIA.

6.2.1 Verified Use of Land

Portion 1 of the farm Zwartwitpensbokfontein 434-KQ is zoned 'Agriculture' but previously used as a game farm. i.e., Shimba Hills Safaris. Most of the game has been sold off by the previous owner. The property is crisscrossed by existing small farm roads.

An 88KV Northam-Rooiberg including 132kV Spitskop-Mamba OHPL's cross the property along its Northern boundary. There is an existing former farm residence supplied with power by a 22kV power line, outbuildings, borehole, septic tank, and few game drinking holes. The property has no water rights aside from the existing borehole. There are three fenced graves near the farm residence. One is marked Jan Huystek (1929), the others are unmarked.

Majority of the site (75%) on the western portion of the property is relatively flat and comprises deeper red soils covered in Dwaalboom Thornveld. The Dwaalboom Thornveld is severely encroached by Sekelbos (*Dichrostachys cinerea*) owed to extensive historical overgrazing. This section has several bare patches of soil prone to erosion. The eastern extreme of the site (25%) comprises an outcrop/hill underlain by rocky shallow soils covered in Dolomite Bushveld. The Dolomite Bushveld is in a better condition than the Thornveld and defined by a diversity of trees, large mature trees i.e., Marula, Leadwood and Shepards Tree.

There are no natural water resources onsite only two artificial dams (game watering holes) on the eastern portion of the farm (supplied by borehole water). There is also a non-perennial drainage feature owed to surface runoff from the adjacent road also feeding into one of the artificial dams.

Photographic evidence is provided in Figures 6-9 and 6-10.

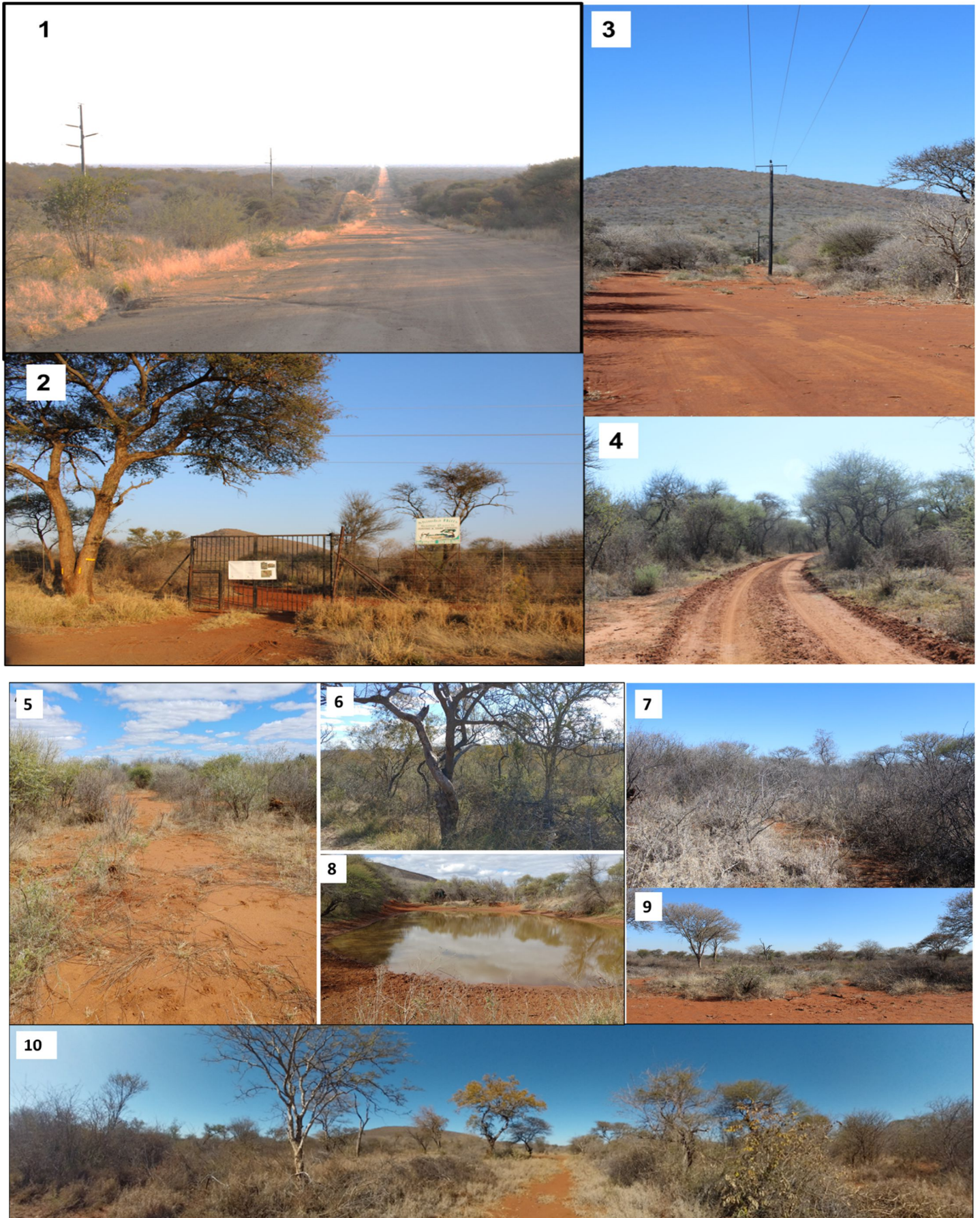


Figure 6-9: Photo Plate of images taken from site; **1)** D1234 Northam – Koedoeskop Road; **2)** Entrance gate to the application property; **3)** The Dolomite Outcrop in the eastern extreme of the application property; **4)** Typical existing farm roads on the property **5)** Degraded Bushveld with bare soils **6)** Dolomite Bushveld **7)** Degraded Bushveld encroached with Sicklebush **8)** Dam; **9) & 10)** Degraded Bushveld and Panoramic view of flat section on western portion of site.

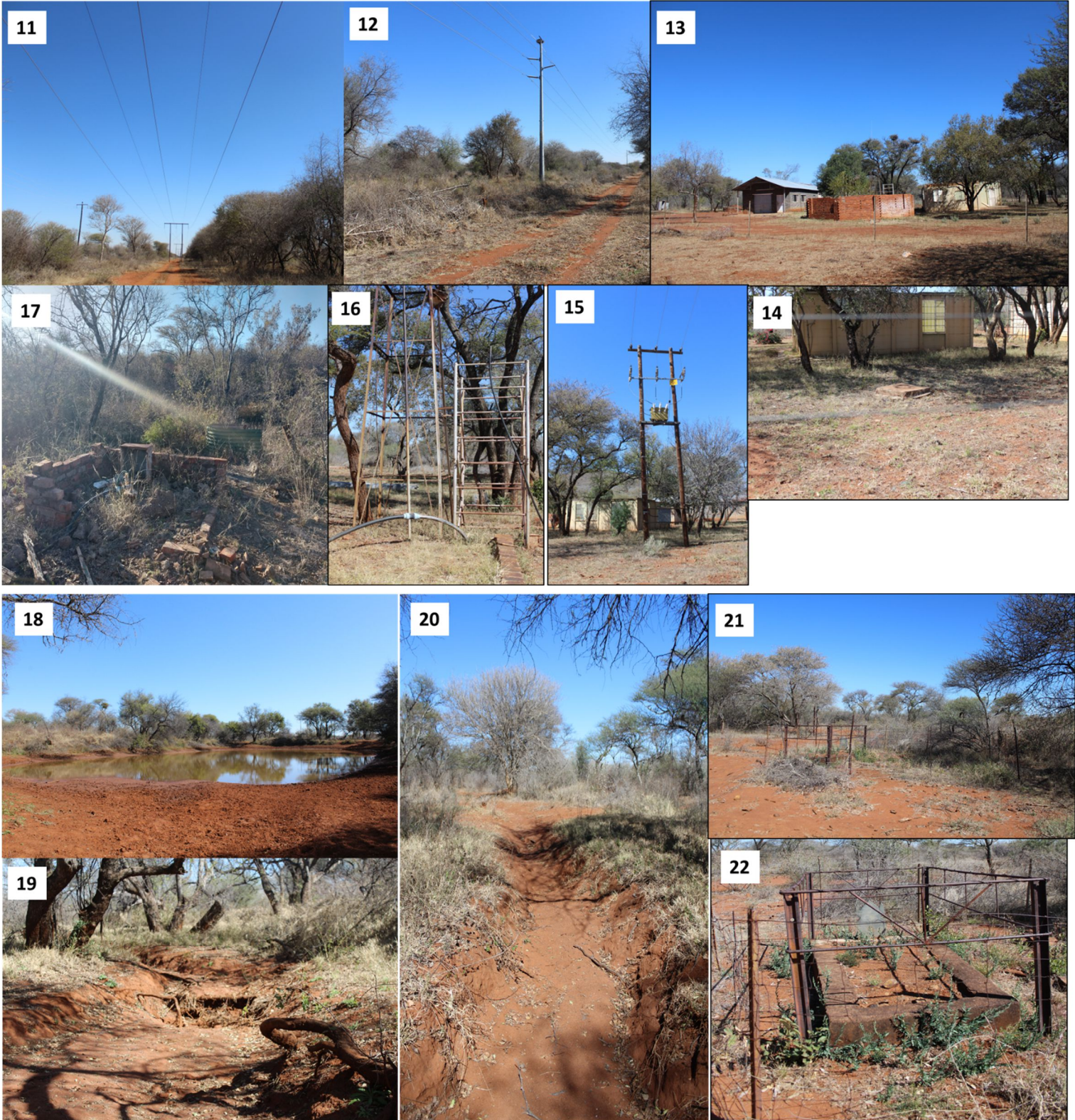


Figure 6-10: Photo Plate 2; Photo 11 and 12) Existing 22kV, 88kV and 132KV OHPL; 13) & 14) Existing former farm residence, outbuildings and septic tank; 15) 22kV OHPL supplying the farm residence; 16) Existing borehole at farm residence; 17) Existing borehole on outcrop under 88kV power line servitude; 18) Dam; 19& 20) Non-perennial drainage feature; 20) & 21) Graves recorded near farm residence.

6.2.2 SSV Rating results versus the STR Sensitivity Rating

This section confirms/refutes the sensitivity ratings based on the CEMS and Specialist SSV and need to employ specialists called for in the STR including the level of assessment. The results are provided in Table 3.

Table 3: Summary of SSV Rating results versus STR Sensitivity Rating

Environmental Theme	STR Sensitivity Rating	Confirmed / Refuted	SSV Sensitivity Rating	Reasoning
Agriculture	Very High	Refuted	Low	The specialist site evaluation found the sensitivity to be low. The site falls outside the Crocodile West Irrigation Scheme. There is no high potential land onsite. The climatic conditions and crop yield for the area is such that profitable crop farming is not possible. According to the DALRRD the land is Class 7 or poorer and has low/medium low sensitivity to agricultural development. There will be no impact regarding the loss of sensitive land.
				<p>Level of assessment proposed: AGRICULTURAL COMPLIANCE STATEMENT has been commissioned and will be attached to the EIR.</p>
Terrestrial	Very High	Refuted	Low	<p>The Biodiversity Company found most of the site to be of low sensitivity. Significant degradation was present and only limited functional ESA vegetation was recorded. Three habitat types were recorded i.e.,</p> <ol style="list-style-type: none"> i. Degraded Bushveld is of (Low SEI) – It has functionality savannah habitat. Supports some key ecosystem services and provides basic habitat connectivity. Most portions of this unit have been subject to extensive historical overgrazing and bush encroachment which has led to partial desertification in areas, and a loss to much of the herbaceous layer.

			<p>II. Dolomite Bushveld is of (Medium SEI) – It's in a semi-functional savannah ESA habitat defined by a diversity of trees and shrubs, including numerous large mature trees. Bush encroachment and erosion is less severe than within the Degraded Thornveld habitat unit, and as such a more defined herbaceous layer is present.</p> <p>III. Dams are (High SEI) - Small, isolated depressions that are likely supplemented by an artificial supply of water throughout the year.</p> <p>IV. The site also <u>lies adjacent</u> to the Tortoiseshell Private Nature Reserve (High SEI) which is largely a CBA 1 (irreplaceable area). To mitigate edge effects a 50m buffer must be imposed on this protected area.</p> <p>The Dolomite Bushveld habitat is in a functional state, provides habitat for faunal species and the Dams likely support these species through the drier seasons. The development footprint should be amended to avoid these habitat features to preserve its function/important ecology. Several protected trees were recorded (i.e., Marula, Leadwood and Shepards Tree. Application for permits will be required to tag the trees for removal/destroy.</p> <p><u>Level of assessment proposed:</u></p> <p>If the development footprint avoids all high and medium SEI, then TERRESTRIAL COMPLIANCE STATEMENT should fulfil protocol requirements, due to the fact that only low sensitivity habitat would be directly impacted by the activities.</p> <p>A Terrestrial Compliance Statement will be commissioned and attached to the EIR.</p>
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Plant	Low	Confirmed	Low	No SCC were recorded and there is only a low potential for it to occur, numerous protected trees were recorded.
				<p><u>Level of assessment proposed:</u></p> <p>Will be included as part of the TERRESTRIAL COMPLIANCE STATEMENT</p>
Animal	Medium	Confirmed	Moderate	The Biodiversity Company found that certain SCC species are likely to move through parts of the area regularly. The high SEI and medium SEI habitats are likely to support fauna species.
				<p><u>Level of assessment proposed:</u></p> <p>Since high SEI and medium SEI areas will be avoided by the development footprint a TERRESTRIAL COMPLIANCE STATEMENT will be commissioned and attached to the EIR. The fauna/animal species assessment be included in the compliance statement.</p>
Avifauna	Moderate	Confirmed	Moderate and Very Low	<p>There are three habitats available onsite.i.e.,</p> <ol style="list-style-type: none"> I. Water resources (two dams) (Medium SEI) – This habitat has been altered with potential to support NT SCC. II. Degraded Bushveld (Medium SEI) – This habitat has been altered with the potential to support CR, EN and VU SCC. III. Modified areas (Low SEI) – Generally intact habitat and has high resilience to impacts and only two SCC expected to forage within this habitat. <p>The Biodiversity Company specify that SABAP 2 data indicate that 317 avifauna species are expected for the project and surrounding habitats. Ten of these are considered SCC. 76 of the expected 317 species were observed during the site visit.</p>

				<p><u>Level of assessment proposed:</u> AVIFAUNA IMPACT ASSESSMENT (REGIME 1) (Single season survey)</p>
Aquatic	Low	Confirmed	Low	<p>No natural water features are present onsite. Only two artificial dams (game watering holes). Only one non-perennial drainage feature owned to surface runoff from the adjacent road.</p> <p><u>Level of assessment proposed:</u> AQUATIC COMPLIANCE STATEMENT has been commissioned and will be attached to the EIR.</p>
Landscape	Very High	Refuted	Moderate - High	<p>According to the STR the site is within 1.5km from a nature reserve and between 1.5 to 3km of other nature reserves. This is correct. The site is located next to the Tortoiseshell Nature Reserve and within 5km of Koerooi, Die Kraal and Sharpe PNRs.</p> <p>The overall landscape varies between agricultural landscape, which is undulating to flat, to pristine bushveld landscape and few degraded, polluted landscapes around homesteads and towns. Large mines in the larger study area present a negative effect on the visual character of the landscape. The proposed study area has historically been used for agriculture. Thus, cannot be motivated as a 'Very High' sensitivity landscape.</p>

				<p>The site is remote, away from large towns and developments and is situated in a pristine bushveld landscape and can be assigned a moderately-high landscape visual quality. There are very few visual receptors, but due to the activity size and type it may have an impact on the visual character of the area and result in intrusion of the landscape. But the landscape has a moderate absorption / screening capacity that should lower the impacts on sensitivity receptors.</p> <p><u>Level of assessment proposed:</u> LEVEL 3 VISUAL IMPACT ASSESSMENT will be commissioned and attached to the EIR.</p>
Heritage	Low	Refuted	High and Low	<p>Ubique Heritage Consultants recorded three graves onsite near security residence which are of high significance and small stone structures and cultural material, but these are of low significance – no historical / cultural value.</p> <p><u>Level of assessment proposed:</u> HERITAGE IMPACT ASSESSMENT has been commissioned and will be attached to the EIR and submitted to SAHRA for approval.</p>
Palaeontological	High	Refuted	Low	<p>Banzai Environmental (Elize Butler) confirmed that no fossiliferous outcrop was detected within the development footprint area. The apparent rarity of fossil heritage in the development footprint suggests ‘Low’ palaeontological sensitivity.</p> <p><u>Level of assessment proposed:</u></p>

				<p>PALAEONTOLOGICAL FIELD SURVEY AND IMPACT ASSESSMENT was commissioned because the PalaeoSensitivity Map classified the project footprint area to be of 'Very High' sensitivity. The Palaeontological Impact Report will be submitted to SAHRA for approval and will be attached to the EIR.</p>
Civil	Medium	Confirmed	Medium	<p>The STR states that the application property is within 8km of another civil aviation aerodrome. There is a landing strip on the Farm Liverpool 543-KQ 5.5 km northeast of the proposed application property. This is a rural landing strip owned and operated by Allied Green Energy's director Mr Roland van Tonder. There is also a solar park next to the landing strip.</p> <p>The next landing strip is located 15km from site at Northam (Mawala Lodge Landing strip) on farm De Put 412-KQ. The Thabazimbi Landing field is located 40km north of the site in Thabazimbi Town.</p> <p><u>Level of assessment proposed:</u></p> <p>A Solar Obstacle Application will be lodged with the Air Traffic and Navigation Services (ATNS) Obstacle Evaluator (Graham Mondzinger) at obstacles@atns.co.za or contacted at 062-002-1621. The ATNS will conduct an assessment on the risk of the development to civil aviation. The outcome will be included in the final Scoping Report and EIR.</p> <p>CIVIL AVIATION COMPLIANCE STATEMENT will be prepared by CEMS and submitted to indicate whether the proposed development will have an unacceptable negative impact on civil aviation installations.</p>

Defence	Low	Confirmed	Low	<p>There are no SANFD military bases near the application property. The site sensitivity verification confirms the site to be of low sensitivity and according to the GNR 320 Protocols no further assessment is required.</p> <p>CEMS will consult the SANDF National and Provincial stakeholders to solicit further inputs.</p>
Radio Frequency Interference (RFI)	Low	Confirmed	Low	<p>No further action required. There are no such features within the vicinity of the application property. This theme relates to developing a solar facility close to e.g., the Square Kilometre Array (SKA) radio telescope.</p>
Geology	<p>Although this is not addressed as a theme in the STR it is included for completeness because the STR does identify the need for a Geotechnical Investigation.</p> <p>Because the application property does coincide with Dolomitic land, it is necessary to delineate the dolomite contact to ensure that the proposed solar pv facility is only developed on non-Dolomitic land to avoid costly bedrock drilling required in terms of the Geotechnical Dolomite Standards SANS 1936: 2012. This cannot be postponed till before the commencement of the construction phase as it may have implications for the layout plan and cost to develop the project.</p>		<p>According to the 1: 250 000 Council of Geoscience Geological Dataset most of the site is underlain by non-Dolomitic land (Timeball Hill and Penge Formation). The eastern section of application property may coincide with Dolomitic land (Malmani Formation). The dolomite formation dips at approximately 40 degrees (steep dip) to the west below the iron and shale formations.</p> <p>The solar pv facility will be developed on non-dolomitic land but its necessary to confirm the dolomite boundary for these purposes.</p> <p><u>Level of assessment proposed:</u> BASIC SHALLOW SOIL GEOTECHNICAL INVESTIGATION has been commissioned and will be attached to the EIR.</p>	

6.2.3 Preliminary Environmental Sensitivity Map and No-go Zones based on SSV

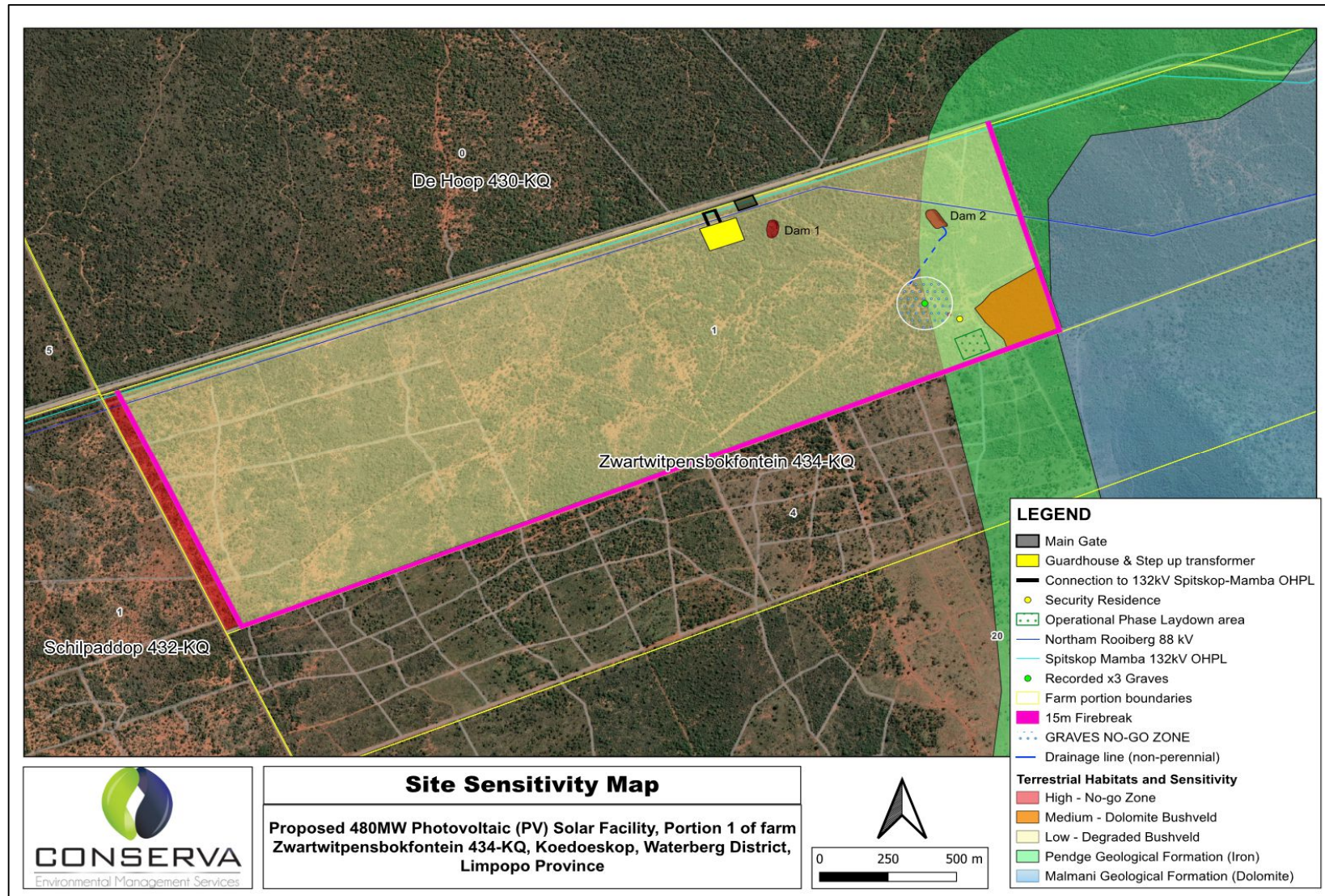


Figure 6-11: Site Sensitivity Map superimposed on application property.

7 CONCLUSION AND COMMISSIONED SPECIALIST STUDIES

Based on the above site sensitivity verification results and site observations the following specialist will be included in the EIA process impact assessment phase:

- Basic Soil Geotechnical Investigation (RockSoil Consult – Kobus Roux)
- Agricultural Compliance Statement (Dr Gouws)
- Terrestrial Compliance Statement including plant and animal species (The Biodiversity Company)
- Aquatic Compliance Statement (The Biodiversity Company)
- Regime 1 Avifauna Impact Assessment (The Biodiversity Company)
- Level 3 Visual Impact Assessment (Outline Landscape Architects – Kathrin Hammel Louw)
- Heritage Impact Assessment (Ubique Heritage Consultants)
- Palaeontological Field Survey and Impact Assessment (Banzai Environmental – Elize Butler)

CEMS will undertake the following:

- Civil Aviation Compliance Statement
- Engage the SANDF regarding the location of the nearest military base.

The only specialist study identified in the STR and considered superfluous for the EIA Study is a Socio-Economic Assessment. CEMS will consider the relevant social and economic impacts related to the project since Allied Green Energy will develop its own plant and are resident in the area.

The specialist terms of reference (ToR) will be detailed in the Plan of Study of the Scoping Report. The above specialist studies will help to address identified environmental issues and the findings will inform the Environmental Impact Report and Environmental Management Programme for the project.

8 EAP SIGN OFF

This Site Sensitivity Verification (SVV) Report has been prepared by Conserva Environmental Management Services

Conserva Environmental Management Services (CEMS)

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Sign: **Maryke André**